

ORAL ARGUMENT NOT YET SCHEDULED

No. 19-1198

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

COMMONWEALTH OF MASSACHUSETTS,
Petitioner,

v.

UNITED STATES NUCLEAR REGULATORY COMMISSION and UNITED
STATES OF AMERICA,
Respondents.

On Petition for Review of Actions by the
Nuclear Regulatory Commission

**FEDERAL RESPONDENTS' COMBINED MOTION TO DISMISS
AND RESPONSE TO PETITIONER'S STAY MOTION**

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GLOSSARY

AEA	Atomic Energy Act
NEPA	National Environmental Policy Act
NRC	Nuclear Regulatory Commission

INTRODUCTION

The U.S. Nuclear Regulatory Commission (“NRC” or “Commission”¹) and the United States of America (together, “Federal Respondents”) jointly (1) move to dismiss the Commonwealth of Massachusetts’s Petition for Review; and (2) respond to Massachusetts’s Motion for a Stay Pending Appellate Review, Doc. No. 1812979 (Oct. 28, 2019) (“Stay Motion”). Under Circuit Rule 18(b) and this Court’s Order, Doc. No. 1814972 (Nov. 8, 2019), Federal Respondents have combined their motion to dismiss and opposition to the Stay Motion because the same jurisdictional issue is central to both motions.

The Court lacks jurisdiction to grant Massachusetts any relief, either on the merits of its Petition for Review or through its Stay Motion, because none of the actions that Massachusetts has challenged constitute final agency action. Pursuant to the Atomic Energy Act (“AEA”), 42 U.S.C. § 2239(b), and the Hobbs Act, 28 U.S.C. § 2342(4), the NRC must issue a “final order” before the Court may exercise jurisdiction over a petition challenging NRC action. Once a final order issues, a 60-day window opens for parties to file petitions for review.

Massachusetts’s Petition for Review challenges seven actions related to the

¹ We use the term NRC to refer to the agency as a whole, and the term “Commission” to refer to the collegial body, currently composed of four members, that oversees the agency and is currently presiding over Massachusetts’s adjudicatory challenge to the decisions at issue in this case.

transfer of an NRC license conditionally approved by the agency's expert employees ("NRC Staff") who have been delegated authority by the Commission to make such decisions, subject to Commission review in adjudicatory proceedings. Because those decisions are all the subject of ongoing litigation before the Commission, none is a final order that this Court has jurisdiction to review.

In addition, Massachusetts has filed before the Commission an application to stay several of the same non-final agency actions, and the pendency of this request renders its request for relief from this Court unexhausted. In any event, because the Court lacks jurisdiction over the matter, Massachusetts has failed to demonstrate a likelihood of success on the merits that would warrant injunctive relief, and it has failed to demonstrate irreparable harm.

To be sure, Massachusetts has a firmly established right under the Hobbs Act to seek review in this Court once the Commission issues a final order concluding the adjudicatory proceeding that Massachusetts commenced. Additionally, Massachusetts can seek immediate review of a Commission decision on its pending application for a stay if it is dissatisfied with the result.² But in the absence of *any* final order to support the exercise of this Court's jurisdiction and in

² If this petition for review is still pending when the Commission rules on Massachusetts's stay application, Federal Respondents will promptly notify the Court.

light of the pendency before the Commission of Massachusetts's application for a stay, Massachusetts's Petition for Review should be dismissed or, in the alternative, held in abeyance; and its request for a stay should be denied.

BACKGROUND

I. The NRC's provisional approval of the license transfer and related regulatory actions.

This case concerns the NRC's provisional approval of the transfer of the license governing the Pilgrim Nuclear Power Station and the Pilgrim Independent Spent Fuel Storage Installation ("Pilgrim") in Plymouth, Massachusetts. Pilgrim ceased generating electricity in May 2019, but the NRC retains jurisdiction over the plant to ensure its safe decommissioning.

In November 2018, Pilgrim's operator, Entergy Nuclear Operations, Inc., on behalf of itself and Entergy Nuclear Generation Company (together "Entergy"), Holtec International, and Holtec Decommissioning International, LLC (together "Holtec") submitted a license transfer application to the NRC. In short, Entergy and Holtec requested that the NRC approve transfer of the Pilgrim license from Entergy to Holtec so that Holtec could decommission the site. Holtec intends to decommission the site within 15 years, a shorter time frame than Entergy had previously planned to employ.

In addition to seeking the NRC's approval of the transfer, Entergy and Holtec requested two other related regulatory actions: first, an amendment to *inter*

alia, delete a license condition requiring a \$50 million contingency fund that Entergy was required to maintain to satisfy the NRC's financial assurance requirements but that Holtec believed was not applicable to it; and second, a regulatory exemption that would permit funds held in trust and otherwise required by 10 C.F.R. § 50.82(a)(8)(i)(A) to be used solely for decommissioning to pay for spent fuel management and site restoration activities (work that falls outside the NRC's definition of decommissioning).

In January 2019, the NRC published a notice of the license transfer application and provided an opportunity to comment on it and the license amendment and to request a hearing in accordance with Section 189a. of the AEA, 42 U.S.C. § 2239(a). *See* Pilgrim Nuclear Power Station; Consideration of Approval of Transfer of License and Conforming Amendment, 84 Fed. Reg. 816 (Jan. 31, 2019) (Exhibit 1). Less than a month later, Massachusetts petitioned to intervene in the proceedings and requested a hearing before the Commission (Exhibit 2).

Where, as here, an adjudicatory proceeding is pending before the Commission, NRC regulations nevertheless anticipate that the NRC Staff may complete its review of a license transfer application and conditionally grant the transfer before the completion of the adjudicatory proceeding. The regulations specify that, notwithstanding the existence of a pending adjudicatory proceeding,

the Staff is “expected to promptly issue approval or denial” of the application. *See* 10 C.F.R. § 2.1316(a). Critically, however, a license transfer application issued under those circumstances “will lack the agency’s final approval until and unless the Commission concludes the adjudication in the Applicant’s favor.” *Vermont Yankee Nuclear Power Corp. and AmerGen Vermont, LLC* (Vermont Yankee Nuclear Power Station), CLI-00-17, 52 NRC 79, 83 (2000).

On August 22, 2019, the NRC Staff took three actions: (1) it issued an order approving the Pilgrim license transfer (Exhibit 3); (2) it granted the license amendment (Exhibit 4); and (3) it approved an exemption for Holtec to use the trust fund for activities other than decommissioning (Exhibit 5). But while the August 2019 order approved the license transfer and Entergy has transferred the license to Holtec, the order specifically indicates that the final decision approving the transfer belongs to the Commission:

The NRC Staff’s approval of this license transfer is subject to the Commission’s authority to rescind, modify, or condition the approved transfer based on the outcome of any post-effectiveness hearing on the license transfer application.

Exhibit 3 at 6. And the order specifically contemplates the possibility that the transaction will have to be unwound:

[I]f the Commission overturns the NRC staff's approval of this license transfer, this Order and any conforming amendments reflecting this transfer, will be rescinded, and the Applicants must return the plant ownership to the status quo ante and revert to the conditions existing before the transfer.

*Id.*³

The NRC Staff also assessed the actions under the National Environmental Policy Act ("NEPA"). With respect to the license transfer and amendment, the NRC Staff determined that no further environmental analysis was required because those actions met the eligibility criteria for one of the Commission's categorical exclusions. Exhibit 6 at (§ 5.0) (citing 10 C.F.R. § 51.22(c)(21)).⁴ With respect to

³ The license amendment was likewise made immediately effective (but subject to revocation following a hearing), based on the NRC Staff's determination, in accordance with 42 U.S.C. § 2239(a)(2)(A), that the amendment involved "no significant hazards consideration." This finding enables a license amendment to be issued immediately, subject to modification during the hearing process, upon the NRC Staff's determination that an amendment does not involve a significant increase in the probability or consequences of a previously evaluated accident; does not create the possibility of a new or different kind of accident; and does not involve a significant reduction in a margin of safety. *See* Safety Evaluation by the Office of Nuclear Reactor Regulation Related to the Request for Direct and Indirect Transfers (Aug. 22, 2019) (Exhibit 6) (Safety Evaluation); 10 C.F.R. § 50.92(c) (providing criteria for no significant hazards consideration determination). Similarly, the effectiveness of the exemption was expressly conditioned upon the issuance of the license amendment and NRC approval of the license transfer application. Exhibit 5 at 12.

⁴ The categorical exclusion that the Staff utilized reflects the NRC's determination, based on its experience and made after notice-and-comment rulemaking, that "[a]pprovals of direct transfers of any license issued by NRC and any associated amendments of license required to reflect the approval of a direct or indirect transfer of an NRC license" do not "individually or cumulatively have a significant effect on the human environment" and therefore do not require additional NEPA

the exemption permitting the use of the decommissioning trust fund for spent fuel management and site restoration purposes, the NRC Staff conducted an Environmental Assessment and made a finding that the issuance of the exemption would have no significant effect on the environment. Environmental Assessment and Finding of No Significant Impact; Issuance, 84 Fed. Reg. 43,186 (Aug. 20, 2019) (Exhibit 7).

II. Massachusetts's filings pending before the Commission.

A person seeking to intervene in an NRC proceeding must demonstrate standing and submit at least one “contention” that meets the NRC’s admissibility requirements. *See New Jersey Env'tl. Fed. v. NRC*, 645 F.3d 220, 228-29 (3d Cir. 2011).⁵ Massachusetts has submitted two contentions to the Commission⁶ in connection with the transfer at issue here: first, a “safety” contention asserting that approval of the proposed transfer would be inconsistent with the AEA’s

analysis. 10 C.F.R. §§ 51.22(a), 51.22(c)(21); *see also* 40 C.F.R. §§ 1507.3(b)(2)(ii), 1508.4 (allowing agencies to determine by regulation that certain categories of actions do not usually require either an environmental impact statement of an environmental assessment because they do not “individually or cumulatively have a significant effect on the human environment”).

⁵ In NRC proceedings, a contention is a “specific statement of the issue of law or fact to be raised or controverted” that is material to the proceeding and supported by alleged facts or expert opinion. 10 C.F.R. § 2.309(f)(1).

⁶ Unlike most NRC proceedings, in a proceeding concerning transfer of a license under 10 C.F.R. Part 2, Subpart M, the Commission “will ordinarily be the Presiding Officer at a hearing,” *id.* § 2.1319(a), rather than a licensing board from which an appeal may be taken to the Commission.

requirement that licensed activity be conducted with reasonable assurance of adequate protection of the public health and safety; and second, an “environmental” contention asserting that approval of the license transfer and amendment request would not comply with NEPA. *See* Exhibit 2. Entergy and Holtec have opposed the admission of Massachusetts’s contentions, and the Commission is currently evaluating whether they should be admitted and, if so, will determine whether they constitute grounds for revocation or modification of either the order provisionally approving the transfer and license amendment or the exemption.

On September 3, 2019, after the NRC Staff had provisionally granted the regulatory actions that the applicants requested, Massachusetts filed an application before the Commission (Exhibit 8) seeking to stay the effectiveness of the transfer, amendment, and exemption in accordance with 10 C.F.R. § 2.1327.⁷ Ten days later, Entergy and Holtec filed an opposition to the stay applications. As of the date of this filing, the stay applications remain pending before the Commission.

III. Massachusetts’s Petition for Review and Stay Motion before this Court.

After Massachusetts filed its petition to intervene and its application for a stay with the Commission, it filed the Petition for Review in this Court. The

⁷ Another participant in the proceedings before the Commission, Pilgrim Watch, also filed requests to stay the effectiveness of the NRC Staff’s decisions.

Petition for Review does not challenge any final order by the Commission. Rather, the petition challenges seven actions of the NRC Staff, each of which is the subject of either the hearing request or the stay application Massachusetts has filed with the Commission.⁸ Massachusetts asserts that these actions violate the AEA, NEPA, and the Administrative Procedure Act.

On October 28, 2019, Massachusetts filed the Stay Motion with the Court, seeking a judicial stay of the NRC Staff's license transfer, license amendment, and trust fund exemption decisions. Massachusetts contends that the NRC Staff's actions violated the agency's regulations issued under the AEA and NEPA, and it claims that despite the provisional nature of these actions, they are causing it irreparable harm. Stay Motion at 9, 17-19.

⁸ The seven actions by the NRC Staff that Massachusetts challenges are: (1) the license transfer order; (2) the license amendment removing the contingency funding condition; (3) the Safety Evaluation supporting the license transfer; (4) the "no significant hazards consideration" determination in the Safety Evaluation; (5) the finding in the Safety Evaluation that the transfer and amendment were covered by the NEPA categorical exclusion contained in 10 C.F.R. § 51.22(c)(21); (6) the issuance of the exemption to 10 C.F.R. § 50.82(a)(8)(i)(A) permitting Holtec to use funds in the decommissioning trust fund for non-decommissioning purposes; and (7) the Environmental Assessment and Finding of No Significant Impact for the trust fund exemption.

ARGUMENT

I. The Court lacks jurisdiction over the Petition for Review because Massachusetts has failed to challenge any final order of the Commission.

Under the Hobbs Act and the AEA, this Court's jurisdiction over licensing decisions of the NRC is limited to review of "final orders" of the NRC in "proceedings" for which a "hearing" is available. 28 U.S.C. § 2342(4); 42 U.S.C. §§ 2239(a)(1)(A), 2239(b) (providing for judicial review of final orders "[i]n any proceeding . . . for the granting, suspending, revoking, or amending of any license or construction permit, or application to transfer control"). The "final order" in such a proceeding ordinarily reflects a determination by the Commission, following a request for a hearing and a determination as to whether the contentions raised are admissible and meritorious, as to whether a particular licensing decision should be sustained. *See, e.g., Nat. Res. Def. Council v. NRC*, 823 F.3d 641 (D.C. Cir. 2016) (challenge to Commission's denial of request for hearing on license renewal application for nuclear power plant).

"Courts exercising jurisdiction under [the Hobbs Act] have narrowly construed the term 'final order.'" *Nat. Res. Def. Council v. NRC*, 680 F.2d 810, 815 (D.C. Cir. 1982). This construction is consistent with the important justifications this Court has recognized for avoiding premature judicial review of non-final agency actions. Unforeseen future developments in the ongoing agency

proceeding could render the dispute before the court “moot or insignificant,” resulting in “a waste of judicial time and effort.” *Alaska v. FERC*, 980 F.2d 761, 764 (D.C. Cir. 1992); *see also Consolidated Edison Co. of New York, Inc. v. FERC*, No. 04-1003, 2004 WL 764494, at *1 (D.C. Cir. Apr. 8, 2004) (unpublished). In addition, interlocutory judicial review can often result in delaying the final outcome of the proceeding below and “needlessly intrude” on the ordinary agency procedures. *Alaska*, 980 F.2d at 764. And the dangers of a court taking review prior to the issuance of final agency action are particularly heightened where, as here, the issues presented to the Court are within the core technical and policy competencies of the agency involved. *See DRG Funding Corp. v. Sec’y of Hous. & Urban Dev.*, 76 F.3d 1212, 1214 (D.C. Cir. 1996) (finality requirement of Administrative Procedure Act allows agency to apply its expertise and correct its mistakes); *Siegel v. Atomic Energy Comm’n*, 400 F.2d 778, 783 (D.C. Cir. 1968) (noting that, in enacting the AEA, Congress created a “regulatory scheme which is virtually unique in the degree to which broad responsibility is reposed in the administering agency, free of close prescription in its charter as to how it shall proceed in achieving the statutory objectives”).

For an agency order to be final for purposes of judicial review, it must satisfy the familiar framework established by the Supreme Court in *Bennett v. Spear*, 520 U.S. 154, 177-78 (1997) (citations and quotation marks omitted): (1)

“the action must mark the consummation of the agency’s decision-making process—it must not be of a merely tentative or interlocutory nature,” and (2) “the action must be one by which rights or obligations have been determined, or from which legal consequences will flow.”

Here, the NRC Staff actions that Massachusetts asks the Court to review do not consummate the agency’s decisionmaking process and therefore are not final under *Bennett v. Spear*. Granted, the NRC Staff’s actions may have legal consequences (in the sense that Entergy has transferred the license to Holtec, which is currently managing the facility under the amended license with the benefit of the exemption it requested). But the Staff decisions are, by their terms, provisional in nature because their ultimate applicability specifically depends on the issuance of a “final order” by the Commission after the disposition of Massachusetts’s hearing request in accordance with the specific procedures created by the agency, as set forth at 10 C.F.R. Part 2, Subpart M, for adjudicating challenges to license transfers. *See Soundboard Ass’n v. FTC*, 888 F.3d 1261, 1267 (D.C. Cir. 2018) (“The decisionmaking processes set out in an agency’s governing statutes and regulations are key to determining whether an action is properly attributable to the agency itself and represents the culmination of that agency’s consideration of an issue.”).

Indeed, the NRC Staff's approval of the license transfer expressly states that the Commission may rescind or modify the Staff's actions, depending on the outcome of the proceedings before the Commission. Exhibit 3 at 6. The NRC Staff's approval of the license transfer is "subject to the Commission's authority to rescind, modify, or condition the approved transfer based on the outcome of any post-effectiveness hearing on the license transfer application." *Id.* And if the Commission overturns the NRC Staff's approval of the license transfer, then the Staff's license transfer order and all conforming amendments, including the one that Massachusetts has challenged here, "will be rescinded." *Id.* Finally, if the Commission rescinds the license transfer, then Entergy and Holtec "must return the plant ownership to the status quo ante and revert to the conditions existing before the transfer." *Id.*

Moreover, Massachusetts's challenges before this Court rest on the same legal and factual arguments as its challenges pending before the Commission. Massachusetts's hearing request directly challenges the NRC Staff's license transfer, license amendment, and exemption as inconsistent with the NRC's obligations under the AEA and NEPA—precisely the same theories supporting Massachusetts's Petition for Review. *Compare* Exhibit 2 at 6-26 (AEA contention), 27-43 (NEPA contention) *with* Non-Binding Statement of Issues to Be Raised, Doc. No. 1812922 (Oct. 28, 2019). And Massachusetts's application for a

stay before the Commission (Exhibit 8 at 3-7) directly challenges the legal and factual determinations in the exemption and in the NRC Staff's Safety Evaluation, both of which are directly challenged in the Petition for Review. Construing the agency's action here as final and exercising jurisdiction in this case—where the Commission is presently considering the same challenges to the same decisions—would violate the well-established prohibition against simultaneously contesting the same decisions in agency adjudicatory proceedings and in court. *See City of New Orleans v. SEC*, 137 F.3d 638, 639 (D.C. Cir. 1998) (citing *Tennessee Gas Pipeline Co. v. FERC*, 9 F.3d 980, 980 (D.C. Cir. 1993)).⁹

To be sure, in narrow circumstances this Court has exercised jurisdiction over a challenge to an NRC order before the Commission completed a hearing. In

⁹ This prohibition extends to the NRC Staff's no significant hazards consideration determination, which provided the statutory predicate for issuance of the license amendment before the completion of the adjudicatory proceeding (and served no other purpose). *See supra* note 3. Although one district court concluded (prior to *Bennett v. Spear*) that such a determination constitutes final agency action, *see Ctr. for Nuclear Responsibility v. NRC*, 586 F. Supp. 579, 580-81 (D.D.C. 1984), the determination, even if it ever final agency action at all, has been rendered non-final for purposes of judicial review here because Massachusetts has raised it as part of its challenge before the Commission. *See* Exhibit 9 at 25-28 (section of Commonwealth's reply brief before Commission in further support of hearing request entitled "The Commonwealth Raises an Admissible Challenge to the No Significant Hazards Consideration"); Exhibit 2 at 5 (challenging process agency employed in making determination); *see also United Transp. Union v. International Commerce Commission*, 871 F.2d 1114, 1116 (D.C. Cir. 1989) (party may not "obtain judicial review of an agency decision that is otherwise final if that party has also filed a petition for reconsideration that remains pending before the agency").

Massachusetts v. NRC, 924 F.2d 311, 322 (D.C. Cir. 1991), this Court found jurisdiction to review for abuse of discretion an “immediate effectiveness” determination made by the Commission, which authorized immediate full-power use of a license even though a contested adjudication remained pending. But *Massachusetts* does not support jurisdiction over any part of the Petition for Review here. There, the Court explained that the “immediate effectiveness” question was the *sole* issue over which the Court had jurisdiction at the time, given that the adjudication was not yet complete. *Id.* (discussing the “exceedingly limited” scope of this Court’s review in that case, which was “akin to the review of a district court’s grant of a preliminary injunction”). In so holding, this Court rejected the argument that the finality of the immediate effectiveness ruling allowed it to also exercise jurisdiction over other non-final actions in that still-incomplete licensing proceeding. *Id.* Moreover, unlike in *Massachusetts*, *Massachusetts* is not challenging any decision here that is the consummation of the Commission’s decisionmaking process. Indeed, *all* of the NRC Staff decisions that *Massachusetts* has challenged currently remain pending before the Commission, including (unlike in *Massachusetts*) the determination by the *Staff* that the license amendment presents no significant hazards consideration and therefore can be issued on an immediately effective basis. See Exhibit 9 at 25-28; Exhibit 2 at 5.

In short, Massachusetts is raising before the Court the very same issues that it has raised, and that are still pending, in an adjudicatory proceeding before the Commission, either in its hearing request or in its application for a stay. These issues will be the subject of final orders by the Commission, and will be reviewable by the Court, once final decisions resolving the contentions of Massachusetts (and of any other participants in the proceeding) and the applications for a stay have been issued. But under well-settled principles of finality, judicial review must await such decisions.

II. Massachusetts is not entitled to a judicial stay.

A. Massachusetts has failed to justify a judicial stay when it has not yet exhausted its administrative remedies.

Federal Rule of Appellate Procedure 18(a)(1) requires that “[a] petitioner must ordinarily move first before the agency for a stay pending review of its decision or order,” and Rule 18(a)(2)(A) requires that the motion to the Court must either “show that moving first before the agency would be impracticable” or “state that, a motion having been made, the agency denied the motion or failed to afford the relief requested and state any reasons given by the agency for its action.” In the Stay Motion (at p. 8), Massachusetts briefly states that “[t]he Commissioners have yet to rule” on its application for a stay. But Massachusetts has not offered a good reason for the Court to enter a judicial stay before the Commission has had an

adequate opportunity to consider and rule on Massachusetts's application for an administrative stay.

Even if Massachusetts's perfunctory explanation technically satisfies Rule 18(a), the Court should decline to grant a stay under longstanding and well-reasoned exhaustion principles. As a general rule, a "party must first raise an issue with an agency before seeking judicial review." *Tesoro Refining & Mktg Co. v. FERC*, 552 F.3d 868, 872 (D.C. Cir. 2009). And a person participating in an agency proceeding cannot simply stop in the middle of the process and, ignoring any remaining available steps, proceed directly to court. *See, e.g., Woodford v. Ngo*, 548 U.S. 81, 90 (2006) (holding that a court should dismiss a lawsuit where the litigant did not fully exhaust administrative remedies).

As this Court has recognized, the exhaustion requirement is a matter of "[s]imple fairness." *Cape Cod Hosp. v. Sebelius*, 630 F.3d 203, 211 (D.C. Cir. 2011) (quoting *United States v. L.A. Tucker Truck Lines*, 344 U.S. 33, 37 (1952)). Exhaustion "serves the twin purposes of protecting administrative agency authority and promoting judicial efficiency," by "ensur[ing] that agencies—and not the federal courts—take primary responsibility for implementing the regulatory programs assigned by Congress." *Ass'n of Flight Attendants-CWA, AFL-CIO v. Chao*, 493 F.3d 155, 158 (D.C. Cir. 2007) (quoting *McCarthy v. Madigan*, 503 U.S. 140, 145 (1992)). Ignoring exhaustion requirements would "encourage

people to ignore an agency's procedures by allowing litigants who . . . could have petitioned the agency directly for the relief [sought]" to "seek those forfeited administrative remedies from the court later." *Malladi Drugs & Pharms., Ltd. v. Tandy*, 552 F.3d 885, 890 (D.C. Cir. 2009) (citations omitted). And requiring that hearings be completed before the agency "may produce a useful record for subsequent judicial consideration." *Benoit v. USDA*, 608 F.3d 17, 23 (D.C. Cir. 2010) (quoting *McCarthy*, 503 U.S. at 145).

These principles apply with full force here. Massachusetts has failed to articulate why the Court should disrupt the current administrative process before the Commission has applied its technical expertise to consider Massachusetts's arguments. Nor has Massachusetts suggested that it would be futile or otherwise imprudent to await the Commission's decision. As an initial matter, Massachusetts did not designate its stay request before the Commission as one seeking emergency relief, belying any potential assertion that the matter cannot await Commission consideration. Moreover, Massachusetts's request before the Commission is supported by an expert report, two cash flow analyses, and 51 exhibits spanning nearly 1,800 pages. Any suggestion that the Commission is somehow unduly delaying its consideration of the complex issues involved is therefore unwarranted.

Moreover, the Commission is unable to take a definitive position on Massachusetts's arguments in the Stay Motion because it is considering those same

issues in the context of Massachusetts's pending application for an administrative stay. It is true that the NRC *Staff* determined, as part of its no significant hazards consideration determination, that the public health and safety would not be compromised if the underlying license amendment went into effect prior to the completion of Massachusetts's adjudicatory challenge. It is likewise true that the Commission, in its supervisory capacity over the agency, was made aware of the Staff's intended actions and could have directed *sua sponte* that the license transfer and related decisions not go forward during the pendency of the hearing. Notice of Significant Licensing Action (Aug. 13, 2019) (Exhibit 10). But the questions of whether the timing of the hearing is causing irreparable harm, as well as whether Massachusetts is likely to succeed on the merits of its AEA and NEPA claims, have been squarely raised before the Commission in the context of Massachusetts's stay application. As such, the NRC is unable fully express its views on the merits of those arguments. The Commission's views will be developed once the Commission issues a decision on the Massachusetts's application for a stay. And if Massachusetts is not satisfied with the outcome, then consistent with this Court's decision in *Massachusetts*, it will have the right to file a new petition for review that narrowly challenges only the Commission's final decision on the stay application. But, because Massachusetts has failed to exhaust its administrative remedies before the Commission, this Court should decline to grant a judicial stay.

B. There is no likelihood of success on the merits given the jurisdictional infirmities of the Petition for Review.

Given the pendency of Massachusetts's stay request before the Commission, the Commission has not yet reached a position with respect to the underlying merits of Massachusetts's stay request, and counsel for Federal Respondents cannot articulate a position with respect to most of the issues that Massachusetts has raised. But for the reasons discussed in Argument Point I above, it is evident that Massachusetts has no likelihood of success on the merits because the Court lacks jurisdiction over its Petition for Review. In the absence of jurisdiction over the Petition for Review, the equitable relief that Massachusetts requests is not available. As such, the Stay Motion should be denied.

C. Massachusetts has not demonstrated irreparable harm to justify a judicial stay.

In addition, Massachusetts's Stay Motion fails to establish irreparable harm that would justify this Court staying the effectiveness of the NRC Staff's actions. Massachusetts first asserts that it will suffer irreparable harm from Holtec withdrawing money from the trust fund. Stay Motion 17-18. But as Massachusetts acknowledges, the trust fund was funded by ratepayers, not by Massachusetts, and the fund is now owned by Holtec. *Id.* at 3-4. Massachusetts fails to explain how, under these circumstances, the ratepayers on whose behalf it appears to be arguing would be injured by Holtec's use of these funds while the adjudication proceeds.

Massachusetts does assert that the State and its citizens are likely to suffer irreparable harm due to Holtec immediately beginning decommissioning activities at Pilgrim and irretrievably depleting the trust fund during the pendency of the adjudication. *Id.* at 17-18. But the Commission is considering these same arguments in Massachusetts's stay application (and Federal Respondents therefore do not take a position with respect to these arguments). To the extent that the Commission concludes they have merit, the Commission has authority to stay the license transfer. And if Massachusetts disagrees with the Commission's decision on its stay application, it may then seek relief from this Court in a new petition for review. Moreover, the Commission has the authority to rescind the license transfer and order the restoration of the status quo, and it has expressly stated that it will take appropriate action in the event it determines that Massachusetts's challenge has merit. Exhibit 3 at 6. And, of course, the NRC has an ongoing regulatory responsibility to ensure that all activities are conducted safely and that the trust fund is adequately capitalized.

Finally, Massachusetts seeks (Stay Motion 19) to analogize the present case to *Oglala Sioux Tribe v. NRC*, 896 F.3d 520, 532 (D.C. Cir. 2018). In *Oglala Sioux Tribe*, the Court held that it did not have jurisdiction to review most of the rulings challenged by the petitioner, but it had jurisdiction to review the Commission's order that left the license in effect, "notwithstanding the NRC's

determination that the agency is not in compliance with NEPA—pending further proceedings before the Atomic Safety and Licensing Board.” *Id.* at 527. Here, in contrast, neither the NRC Staff nor the Commission has determined that the agency has made a decision without complying with NEPA. *Oglala Sioux Tribe* therefore does not establish that Massachusetts will suffer irreparable harm or incur some form of procedural injury protected by NEPA if the Staff decisions remain in place during the pendency of the adjudication.

D. The balance of harms and public interest do not justify a stay.

Finally, Massachusetts has not demonstrated that the balance of harms and the public interest justify a judicial stay at this time, rather than allowing the administrative proceedings before the Commission to unfold in the ordinary manner. Massachusetts’s stay application and its challenges to the license transfer, the license amendment, and the trust fund exemption remain pending before the Commission. If the Commission finds that some or all of Massachusetts’s contentions have merit, the Commission has authority to rescind the license transfer and amendment and to order the restoration of the status quo ante. This procedure is fully consistent with Congress’s direction that license amendments relating to nuclear reactors can be issued prior to the completion of adjudicatory proceedings. *See* 42 U.S.C. § 2239(a)(2). It also comports with the NRC’s regulations specifically contemplating that decisions on license transfers should be

issued “promptly” upon completion by the Staff of the required findings, even where a hearing has been requested. 10 C.F.R. § 2.1316(a). Under these circumstances, Massachusetts cannot show that the public interest will be served by this Court intervening before the Commission has had an adequate opportunity to consider and decide the issues in accordance with the statutes and regulations governing such proceedings.

CONCLUSION

The Hobbs Act requires dismissal of Massachusetts’s Petition for Review. Once the Commission issues final decision with respect to Massachusetts’s contentions about the license transfer, amendment, and exemption, a 60-day jurisdictional window will open and Massachusetts may then file a new petition for review. Likewise, if Massachusetts is dissatisfied with the Commission’s resolution of its pending stay application, then it will be able to challenge that decision in a new petition for review. Accordingly, Federal Respondents respectfully request that the Court (1) dismiss the Petition for Review; and (2) deny Massachusetts’s request for a stay.

Respectfully submitted,

/s/ Justin D. Heminger

ERIC GRANT

Deputy Assistant Attorney General

JUSTIN D. HEMINGER

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Environment and Natural Resources

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(202) 514-5442

/s/ Andrew P. Averbach

ANDREW P. AVERBACH

Solicitor

Office of the General Counsel

U.S. Nuclear Regulatory Commission

(301) 415-1956

DJ Number 90-13-3-15867

Dated: November 22, 2019

**CERTIFICATE OF COMPLIANCE WITH
FEDERAL RULE OF APPELLATE PROCEDURE 27(D)**

I certify that this filing complies with the requirements of Fed. R. App. P. 27(d)(1)(E) because it has been prepared in 14-point Times New Roman, a proportionally spaced font.

I further certify that this filing complies with the type-volume limitation of Fed. R. App. P. 27(d)(2)(A) and Circuit Rule 18(b) because it contains 5467 words, excluding the parts of the filing exempted under Fed. R. App. P. 32(f), according to the count of Microsoft Word.

/s/ Andrew P. Averbach

ANDREW P. AVERBACH

Counsel for Respondent United States
Nuclear Regulatory Commission

CERTIFICATE OF SERVICE

I hereby certify that on November 22, 2019, I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the District of Columbia Circuit by using the appellate CM/ECF system.

The participants in the case are registered CM/ECF users and service will be accomplished by the appellate CM/ECF system.

/s/ Andrew P. Averbach

ANDREW P. AVERBACH

Counsel for Respondent United States
Nuclear Regulatory Commission

No. 19-1198

Federal Respondents' Combined Motion to Dismiss
and Response to Petitioner's Stay Motion

Exhibit 1

*Date of initial notice in **Federal Register**:* March 13, 2018 (83 FR 10921). The supplemental letters dated February 9, 2018 and July 17, 2018, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the **Federal Register**.

The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated December 19, 2018.

No significant hazards consideration comments received: No.

Tennessee Valley Authority, Docket No. 50-391, Watts Bar Nuclear Plant, Unit 2, Rhea County, Tennessee

Date of amendment request: October 31, 2018.

Brief description of amendment: The amendment revised the completion date for License Condition 2.C.(5) for the Watts Bar Nuclear Plant, Unit 2, regarding the completion of action to resolve the issues identified in NRC Bulletin 2012-01, "Design Vulnerability in Electric Power System" (ADAMS Accession No. ML12074A115), from December 31, 2018, to December 31, 2019, to align with the remainder of the Tennessee Valley Authority fleet and with the nuclear industry.

Date of issuance: December 21, 2018.

Effective date: As of the date of issuance and shall be implemented immediately.

Amendment No.: 23. A publicly-available version is in ADAMS under Accession No. ML18334A333; documents related to this amendment are listed in the Safety Evaluation enclosed with the amendment.

Facility Operating License No. NPF-96: The amendment revised the Facility Operating License.

*Date of initial notice in **Federal Register**:* November 14, 2018 (83 FR 56876).

The Commission's related evaluation of the amendment and final determination of no significant hazards consideration is contained in a Safety Evaluation dated December 21, 2018.

No significant hazards consideration comments received: One comment was received on December 14, 2018. The public comment and the NRC staff response are provided in the Safety Evaluation.

Dated at Rockville, Maryland, this 25th day of January 2019.

For the Nuclear Regulatory Commission.

Gregory F. Suber,

Director, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. 2019-00358 Filed 1-30-19; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-293 and 72-1044; NRC-2018-0279]

Pilgrim Nuclear Power Station; Consideration of Approval of Transfer of License and Conforming Amendment

AGENCY: Nuclear Regulatory Commission.

ACTION: Application for direct and indirect transfers of license; opportunity to comment, request a hearing, and petition for leave to intervene.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) received and is considering approval of an application filed by Entergy Nuclear Operations, Inc. (ENOI) on November 16, 2018. The application seeks NRC approval of the direct and indirect transfers of Renewed Facility Operating License No. DPR-35 for Pilgrim Nuclear Power Station (Pilgrim) as well as the general license for Pilgrim Independent Spent Fuel Storage Installation (ISFSI), collectively the Licenses. ENOI on behalf of itself and Entergy Nuclear Generation Company (ENGCO), Holtec International (Holtec), and Holtec Decommissioning International, LLC (HDI) requests that the NRC consent to (1) the indirect transfer of control of the Licenses to Holtec; and (2) the direct transfer of ENOI's operating authority to HDI. The NRC is also considering amending the renewed facility operating license for administrative purposes to reflect the proposed transfer. The application contains sensitive unclassified non-safeguards information (SUNSI).

DATES: Comments must be filed by March 4, 2019. A request for a hearing must be filed by February 20, 2019. Any potential party as defined in § 2.4 of title 10 of the *Code of Federal Regulations* (10 CFR), who believes access to SUNSI is necessary to respond to this notice must follow the instructions in Section VI of the **SUPPLEMENTARY INFORMATION** section of this notice.

ADDRESSES: You may submit comments by any of the following methods (unless this document describes a different method for submitting comments on a specific subject):

- *Federal Rulemaking website:* Go to <http://www.regulations.gov> and search for Docket ID NRC-2018-0279. Address questions about Docket IDs in *Regulations.gov* to Krupskaya Castellon; telephone: 301-287-9221; email: Krupskaya.Castellon@nrc.gov. For technical questions, contact the individual(s) listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- *Email comments to:* Hearingdocket@nrc.gov. If you do not receive an automatic email reply confirming receipt, then contact us at 301-415-1677.

- *Fax comments to:* Secretary, U.S. Nuclear Regulatory Commission at 301-415-1101.

- *Mail comments to:* Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Rulemakings and Adjudications Staff.

- *Hand deliver comments to:* 11555 Rockville Pike, Rockville, Maryland 20852, between 7:30 a.m. and 4:15 p.m. (Eastern Time) Federal workdays; telephone: 301-415-1677.

For additional direction on obtaining information and submitting comments, see "Obtaining Information and Submitting Comments" in the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: John G. Lamb, Office of Nuclear Reactor Regulation, telephone: 301-415-3100, email: John.Lamb@nrc.gov; U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC-2018-0279 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- *Federal Rulemaking website:* Go to <http://www.regulations.gov> and search for Docket ID NRC-2018-0279.

- *NRC's Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced (if it is

available in ADAMS) is provided the first time that it is mentioned in this document.

- *NRC's PDR*: You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

B. Submitting Comments

Please include Docket ID NRC-2018-0279 in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <http://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Introduction

The NRC is considering the issuance of an order under § 50.80 of title 10 of the *Code of Federal Regulations* (10 CFR) and 10 CFR 72.50 approving the direct and indirect transfers of control of Pilgrim Renewed Facility Operating License No. DPR-35 as well as the general license for Pilgrim ISFSI, currently held by ENOI. Specifically, the application, dated November 16, 2018 (ADAMS Accession No. ML18320A031), requests the indirect transfer of control of the licenses from ENOI to Holtec and the direct transfer of ENOI's operating authority of Pilgrim to HDI. In addition, ENGCO would be renamed Holtec Pilgrim, LLC. The NRC is also considering amending the renewed facility operating license for administrative purposes to reflect the proposed transfer.

Following approval of the proposed direct and indirect transfers of control of the licenses, Holtec Pilgrim, LLC would be the licensed owner and HDI will be the licensed operator of the Pilgrim facility.

No physical changes to Pilgrim and the Pilgrim ISFSI or operational changes are being proposed in the application.

The NRC's regulations at 10 CFR 50.80 state that no license, or any right thereunder, shall be transferred, directly or indirectly, through transfer of control of the license, unless the Commission gives its consent in writing. The Commission will approve an application for the direct and indirect transfers of a license if the Commission determines that the proposed transferee is qualified to hold the license, and that the transfer is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission.

Before issuance of the proposed conforming license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. 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. No contrary determination has been made with respect to this specific license amendment application. In light of the generic determination reflected in 10 CFR 2.1315, no public comments with respect to significant hazards considerations are being solicited, notwithstanding the general comment procedures contained in 10 CFR 50.91.

III. Opportunity To Comment

Within 30 days from the date of publication of this notice, persons may submit written comments regarding the license transfer application, as provided for in 10 CFR 2.1305. The Commission will consider and, if appropriate, respond to these comments, but such comments will not otherwise constitute part of the decisional record. Comments should be submitted as described in the **ADDRESSES** section of this document.

In addition, the NRC staff will be participating in a public meeting on January 15, 2019, at the Hotel 1620 Plymouth Harbor, 180 Water Street, Plymouth, Massachusetts 02360, between 6:00 p.m. and 9:00 p.m. The agenda for the meeting will be posted on the NRC public website. The NRC will take public oral or written comments on the application for the proposed license transfer and the associated proposed updated Post-Shutdown Decommissioning Activities Report (PSDAR). The meeting will be transcribed and will include (1) presentations by HDI and ENOI, and (2)

presentations by the NRC. To be considered, comments must be provided either at the transcribed public meeting or submitted by the comment deadline identified in the **DATES** section of this document. For additional information regarding the meeting, see the NRC's Public Meeting Schedule website at <http://meetings.nrc.gov/pmns/mtg>. The agenda will be posted no later than 10 days prior to the meeting.

IV. Opportunity To Request a Hearing and Petition for Leave To Intervene

Within 20 days after the date of publication of this notice, any persons (petitioner) whose interest may be affected by this action may file a request for a hearing and petition for leave to intervene (petition) with respect to the action. Petitions shall be filed in accordance with the Commission's "Agency Rules of Practice and Procedure" in 10 CFR part 2. Interested persons should consult a current copy of 10 CFR 2.309. The NRC's regulations are accessible electronically from the NRC Library on the NRC's website at <http://www.nrc.gov/reading-rm/doc-collections/cfr/>. Alternatively, a copy of the regulations is available at the NRC's Public Document Room, located at One White Flint North, Room O1-F21, 11555 Rockville Pike (First Floor), Rockville, Maryland 20852. If a petition is filed, the Commission or a presiding officer will rule on the petition and, if appropriate, a notice of a hearing will be issued.

As required by 10 CFR 2.309(d) the petition should specifically explain the reasons why intervention should be permitted with particular reference to the following general requirements for standing: (1) The name, address, and telephone number of the petitioner; (2) the nature of the petitioner's right under the Act to be made a party to the proceeding; (3) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (4) the possible effect of any decision or order which may be entered in the proceeding on the petitioner's interest.

In accordance with 10 CFR 2.309(f), the petition must also set forth the specific contentions which the petitioner seeks to have litigated in the proceeding. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner must provide a brief explanation of the bases for the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also

provide references to the specific sources and documents on which the petitioner intends to rely to support its position on the issue. The petition must include sufficient information to show that a genuine dispute exists with the applicant or licensee on a material issue of law or fact. Contentions must be limited to matters within the scope of the proceeding. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to satisfy the requirements at 10 CFR 2.309(f) with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene. Parties have the opportunity to participate fully in the conduct of the hearing with respect to resolution of that party's admitted contentions, including the opportunity to present evidence, consistent with the NRC's regulations, policies, and procedures.

Petitions must be filed no later than 20 days from the date of publication of this notice. Petitions and motions for leave to file new or amended contentions that are filed after the deadline will not be entertained absent a determination by the presiding officer that the filing demonstrates good cause by satisfying the three factors in 10 CFR 2.309(c)(1)(i) through (iii). The petition must be filed in accordance with the filing instructions in the "Electronic Submissions (E-Filing)" section of this document.

If a hearing is requested, and the Commission has not made a final determination on the issue of no significant hazards consideration, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to establish when the hearing is held. If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing would take place after issuance of the amendment. If the final determination is that the amendment request involves a significant hazards consideration, then any hearing held would take place before the issuance of the amendment unless the Commission finds an imminent danger to the health or safety of the public, in which case it will issue an appropriate order or rule under 10 CFR part 2.

A State, local governmental body, Federally-recognized Indian Tribe, or

agency thereof, may submit a petition to the Commission to participate as a party under 10 CFR 2.309(h)(1). The petition should state the nature and extent of the petitioner's interest in the proceeding. The petition should be submitted to the Commission no later than 20 days from the date of publication of this notice. The petition must be filed in accordance with the filing instructions in the "Electronic Submissions (E-Filing)" section of this document, and should meet the requirements for petitions set forth in this section. Alternatively, a State, local governmental body, Federally-recognized Indian Tribe, or agency thereof may participate as a non-party under 10 CFR 2.315(c).

If a hearing is granted, any person who is not a party to the proceeding and is not affiliated with or represented by a party may, at the discretion of the presiding officer, be permitted to make a limited appearance pursuant to the provisions of 10 CFR 2.315(a). A person making a limited appearance may make an oral or written statement of his or her position on the issues but may not otherwise participate in the proceeding. A limited appearance may be made at any session of the hearing or at any prehearing conference, subject to the limits and conditions as may be imposed by the presiding officer. Details regarding the opportunity to make a limited appearance will be provided by the presiding officer if such sessions are scheduled.

V. Electronic Submissions (E-Filing)

All documents filed in NRC adjudicatory proceedings, including a request for hearing and petition for leave to intervene (petition), any motion or other document filed in the proceeding prior to the submission of a request for hearing or petition to intervene, and documents filed by interested governmental entities that request to participate under 10 CFR 2.315(c), must be filed in accordance with the NRC's E-Filing rule (72 FR 49139; August 28, 2007, as amended at 77 FR 46562; August 3, 2012). The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet, or in some cases to mail copies on electronic storage media. Detailed guidance on making electronic submissions may be found in the Guidance for Electronic Submissions to the NRC and on the NRC website at <http://www.nrc.gov/site-help/e-submittals.html>. Participants may not submit paper copies of their filings unless they seek an exemption in accordance with the procedures described below.

To comply with the procedural requirements of E-Filing, at least 10 days prior to the filing deadline, the participant should contact the Office of the Secretary by email at hearing.docket@nrc.gov, or by telephone at 301-415-1677, to (1) request a digital identification (ID) certificate, which allows the participant (or its counsel or representative) to digitally sign submissions and access the E-Filing system for any proceeding in which it is participating; and (2) advise the Secretary that the participant will be submitting a petition or other adjudicatory document (even in instances in which the participant, or its counsel or representative, already holds an NRC-issued digital ID certificate). Based upon this information, the Secretary will establish an electronic docket for the hearing in this proceeding if the Secretary has not already established an electronic docket.

Information about applying for a digital ID certificate is available on the NRC's public website at <http://www.nrc.gov/site-help/e-submittals/getting-started.html>. Once a participant has obtained a digital ID certificate and a docket has been created, the participant can then submit adjudicatory documents. Submissions must be in Portable Document Format (PDF). Additional guidance on PDF submissions is available on the NRC's public website at <http://www.nrc.gov/site-help/electronic-sub-ref-mat.html>. A filing is considered complete at the time the document is submitted through the NRC's E-Filing system. To be timely, an electronic filing must be submitted to the E-Filing system no later than 11:59 p.m. Eastern Time on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an email notice confirming receipt of the document. The E-Filing system also distributes an email notice that provides access to the document to the NRC's Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the filer need not serve the document on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before adjudicatory documents are filed so that they can obtain access to the documents via the E-Filing system.

A person filing electronically using the NRC's adjudicatory E-Filing system may seek assistance by contacting the NRC's Electronic Filing Help Desk through the "Contact Us" link located

on the NRC's public website at <http://www.nrc.gov/site-help/e-submittals.html>, by email to MSHD.Resource@nrc.gov, or by a toll-free call at 1-866-672-7640. The NRC Electronic Filing Help Desk is available between 9 a.m. and 6 p.m., Eastern Time, Monday through Friday, excluding government holidays.

Participants who believe that they have a good cause for not submitting documents electronically must file an exemption request, in accordance with 10 CFR 2.302(g), with their initial paper filing stating why there is good cause for not filing electronically and requesting authorization to continue to submit documents in paper format. Such filings must be submitted by: (1) First class mail addressed to the Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemaking and Adjudications Staff; or (2) courier, express mail, or expedited delivery service to the Office of the Secretary, 11555 Rockville Pike, Rockville, Maryland 20852, Attention: Rulemaking and Adjudications Staff. Participants filing adjudicatory documents in this manner are responsible for serving the document on all other participants. Filing is considered complete by first-class mail as of the time of deposit in the mail, or by courier, express mail, or expedited delivery service upon depositing the document with the provider of the service. A presiding officer, having granted an exemption request from using E-Filing, may require a participant or party to use E-Filing if the presiding officer subsequently determines that the reason for granting the exemption from use of E-Filing no longer exists.

Documents submitted in adjudicatory proceedings will appear in the NRC's electronic hearing docket which is available to the public at <https://adams.nrc.gov/ehd>, unless excluded pursuant to an order of the Commission or the presiding officer. If you do not have an NRC-issued digital ID certificate as described above, click cancel when the link requests certificates and you will be automatically directed to the NRC's electronic hearing dockets where you will be able to access any publicly available documents in a particular hearing docket. Participants are requested not to include personal privacy information, such as social security numbers, home addresses, or personal phone numbers in their filings, unless an NRC regulation or other law requires submission of such information. For example, in some instances, individuals provide home addresses in order to demonstrate

proximity to a facility or site. With respect to copyrighted works, except for limited excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants are requested not to include copyrighted materials in their submission.

The Commission will issue a notice or order granting or denying a hearing request or intervention petition, designating the issues for any hearing that will be held and designating the Presiding Officer. A notice granting a hearing will be published in the **Federal Register** and served on the parties to the hearing.

For further details with respect to this application, see the application dated November 16, 2018 (ADAMS Accession No. ML18320A031, as supplemented on November 16, 2018 (ADAMS Accession No. ML18320A040).

V. Access to Sensitive Unclassified Non-Safeguards Information for Contention Preparation

Any person who desires access to proprietary, confidential commercial information that has been redacted from the application should contact the applicant by telephoning Susan H. Raimo, Entergy Services, LLC, at 202-530-7330 for the purpose of negotiating a confidentiality agreement or a proposed protective order with the applicant. If no agreement can be reached, persons who desire access to this information may file a motion with the Secretary and addressed to the Commission that requests the issuance of a protective order.

Dated at Rockville, Maryland, this 2nd day of January 2019.

For the Nuclear Regulatory Commission,
John G. Lamb,
Senior Project Manager, Special Projects and Process Branch, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. 2019-00371 Filed 1-30-19; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

[NRC-2019-0001]

Sunshine Act Meetings

TIME AND DATE: Weeks of January 21, 28, February 4, 11, 18, 25, 2019.

PLACE: Commissioners' Conference Room, 11555 Rockville Pike, Rockville, Maryland.

STATUS: Public and Closed.

MATTERS TO BE CONSIDERED:

Week of January 21, 2019

Thursday, January 24, 2019

9:55 a.m.—Affirmation Session (Public Meeting) (Tentative), Draft Final Rule—Mitigation of Beyond-Design-Basis Events (Tentative)

This meeting will be webcast live at the Web address—<http://www.nrc.gov/>.

10:00 a.m.—Strategic Programmatic Overview of the New Reactors Business Line (Public Meeting), (Contact: Donna Williams: 301-415-1322)

This meeting will be webcast live at the Web address—<http://www.nrc.gov/>.

Week of January 28, 2019—Tentative

Monday, January 28, 2019

1:30 p.m.—NRC All Employees Meeting (Public Meeting), Marriott Bethesda North Hotel, 5701 Marinelli Road, Rockville, MD 20852

Week of February 4, 2019—Tentative

There are no meetings scheduled for the week of February 4, 2019.

Week of February 11, 2019—Tentative

There are no meetings scheduled for the week of February 11, 2019.

Week of February 18, 2019—Tentative

There are no meetings scheduled for the week of February 18, 2019.

Week of February 25, 2019—Tentative

There are no meetings scheduled for the week of February 25, 2019.

ADDITIONAL INFORMATION: The meeting scheduled on January 31, 2019 at 9:00 a.m., Transformation at the NRC: Innovation, has been postponed.

CONTACT PERSON FOR MORE INFORMATION: For more information or to verify the status of meetings, contact Denise McGovern at 301-415-0681 or via email at Denise.McGovern@nrc.gov. The schedule for Commission meetings is subject to change on short notice.

The NRC Commission Meeting Schedule can be found on the internet at: <http://www.nrc.gov/public-involve/public-meetings/schedule.html>.

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No. 19-1198

Federal Respondents' Combined Motion to Dismiss
and Response to Petitioner's Stay Motion

Exhibit 2

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE SECRETARY

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC.,)
ENTERGY NUCLEAR GENERATION)
COMPANY, AND HOLTEC)
DECOMMISSIONING INTERNATIONAL,)
LLC; CONSIDERATION OF APPROVAL OF)
TRANSFER OF LICENSE AND)
CONFORMING AMENDMENT)

Docket Nos. 50-293 & 72-1044

(Pilgrim Nuclear Power Station)

**COMMONWEALTH OF MASSACHUSETTS'
PETITION FOR LEAVE TO INTERVENE AND HEARING REQUEST**

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INTRODUCTION

The Commonwealth of Massachusetts (Commonwealth or Massachusetts) requests that the U.S. Nuclear Regulatory Commission (NRC or Commission) or, in the event the Commission's Secretary refers this Petition to the Chief Administrative Judge of the Atomic Safety and Licensing Board (ASLB), the designated presiding officer, permit the Commonwealth to intervene in this proceeding and grant the Commonwealth's request for an adjudicatory hearing on Entergy Nuclear Operations, Inc. (Entergy) and Holtec International's (Holtec) (collectively, Applicants)¹ License Transfer Application (Application or LTA), Holtec's unconditioned Exemption Request to use Pilgrim's Decommissioning Trust Fund for site restoration and spent fuel management costs (incorporated into the LTA by LTA Enclosure 2), and Holtec's Revised Post-Shutdown Decommissioning Activities Report (PSDAR) and Site-Specific Cost Estimate (incorporated into the LTA by LTA Attachment D).² As the state that

¹ In this Petition, Entergy refers to Entergy Nuclear Operations, Inc. and Entergy Nuclear Generation Company, and Holtec refers to Holtec International and Holtec Decommissioning International, LLC.

² For clarity, references in this Petition to the License Transfer Application refer to the Applicants' request for the indirect transfer of the Renewed Facility Operating License No. DPR-35 for the Pilgrim Nuclear Power Station (Pilgrim) and the license for Pilgrim's Independent Spent Fuel Storage Installation (ISFSI). *See* Ltr. from Entergy, to NRC, *Application for Order Consenting to Direct and Indirect Transfers of Control of Licenses and Approving Conforming License Amendment; and Request for Exemption from 10 CFR 50.82(a)(8)(i)(A); Pilgrim Nuclear Power Station*; Docket Nos. 50-293 & 72-1044; License No. DPR-35 (Nov. 16, 2018) (ADAMS Accession No. ML18320A031). References in this Petition to Holtec's exemption request refer to the exemption request included as Enclosure 2 to the LTA. References to Holtec's Revised PSDAR and Site-Specific Cost Estimate refer to the notification Holtec made to the NRC on November 16, 2019. *See* Ltr. from Holtec, to NRC, *Revised Post-Shutdown Decommissioning Activities Report and Revised Site-Specific Decommissioning Cost Estimate for Pilgrim*, Docket Nos. 50-293 & 72-1044 (Nov. 16, 2018) (ADAMS Accession No. ML18320A040). The Commission published notice of the opportunity for a hearing on January 31, 2019. *Pilgrim Nuclear Power Station; Consideration of Approval of Transfer of License and Conforming Amendment*, 84 Fed. Reg. 816, 816-17 (Jan. 31, 2019).

will face the financial, environmental, and public health and safety consequences of a funding shortfall, the Commonwealth has a significant interest in ensuring that there exists adequate financial assurance that the licensee will have sufficient funds to decommission and restore the site and manage the anticipated sixty-one spent fuel dry casks (holding 4,114 radioactive spent fuel assemblies) onsite—possibly indefinitely.

The Commonwealth contends that the Applicants have not demonstrated that the Decommissioning Trust Fund, standing alone and in light of Holtec's Exemption Request,³ will provide adequate financial assurance as required by the Atomic Energy Act (AEA) and the Commission's regulations. Indeed, Holtec's own Cost Estimate predicts that it will have a meager \$3.6 million left in the Trust Fund on the license termination date—an amount that, on its face, raises serious questions about whether adequate financial assurance exists. Those questions are made even more serious by the fact that, as explained in detail below, Entergy and Holtec have ignored significant possible contingencies that would, if included, likely result in an estimated shortfall (i.e., insufficient funds to cover all anticipated costs). While the Commonwealth welcomes the possibility of a properly conducted and expedited cleanup and restoration of Pilgrim, the risk of a funding shortfall and the attendant significant health, safety, environmental, financial and economic risks to the Commonwealth and its citizens raise serious questions about the realization of that benefit. The risk of a funding shortfall is radiological, environmental, and financial. If, for example, the Decommissioning Trust Fund is insufficient to cover all of Holtec's costs, there is no guarantee that Massachusetts citizens will not become the

³ The Exemption Request, if allowed in its current form, would allow Holtec to effectively syphon approximately \$500 million from the Fund to cover spent fuel management costs into its own accounts without any commitment from Holtec to use its recovery of most of those funds from the U.S. Department of Energy for any funding shortfalls in decommissioning, site restoration, or spent fuel management.

payers of last resort. On the current record, the Commission cannot find, as it must, that the LTA would, if allowed, provide “adequate protection to the health and safety of the public.” 42 U.S.C. § 2232(a).

The Commonwealth also contends that the Commission must conduct, at a minimum, an environmental assessment of the potential direct and indirect environmental consequences of the proposed action, i.e., the combined effect of the LTA, the Exemption Request, and the Revised PSDAR, which, as noted above, have been presented as a single proposal for Commission consideration and action. In particular, the categorical exclusion in 10 C.F.R. § 51.22(c)(21) is inapplicable to the LTA and special circumstances exist that would preclude reliance on it even if it did apply, because (i) the Applicants, by proposing to eliminate the License’s existing \$50 million contingency allowance for decommissioning costs, propose an amendment that is not required to approve the license transfer; (ii) the Exemption Request ignores the potential environmental consequences of a resulting shortfall in the Fund; and (iii) new and significant information, namely, the potential environmental consequences of climate change, which is not bounded by any prior Generic Environmental Impact Statement (GEIR) or the 2007 Pilgrim Site-Specific Supplemental Environmental Impact Statement (SEIS), require preparation of a supplemental Environmental Impact Statement. As such, the Commission’s action on the LTA, Exemption Request, and Revised PSDAR constitutes a major federal action and the NRC must conduct an environmental review.

In short, the Commonwealth has standing because Pilgrim is located in Massachusetts, and it has presented in this Petition two contentions that meet all regulatory requirements and are admissible pursuant to 10 C.F.R. § 2.309(f). Entergy and Holtec have failed to demonstrate that, if allowed, the LTA, the Exemption Request, and the Revised PSDAR will ensure adequate

protection of public health, safety, and the environment. As detailed below, Entergy and Holtec have omitted certain highly material facts from their application and request and have ignored possible contingencies. As a result, there exists a genuine dispute about whether Holtec has the financial ability to decommission and restore the site and manage the spent fuel onsite indefinitely. The Atomic Energy Act, the Administrative Procedure Act (APA), and the National Environmental Policy Act (NEPA) require a hearing to address these and other issues discussed below.

STANDING

The Commonwealth has standing because Pilgrim “is located within the boundaries of the State.” 10 C.F.R. § 2309(h)(2). Accordingly, “no further demonstration of standing [under 10 C.F.R. § 2.309(d)] is required.” *Id.*⁴

THE COMMONWEALTH PRESENTS TWO CONTENTIONS THAT MEET ALL REQUIREMENTS OF 10 C.F.R. § 2.309(f) AND ARE ADMISSIBLE

The Commonwealth’s contentions identify specific regulatory requirements for which Entergy and Holtec have failed to present sufficient evidence of compliance. The Commonwealth’s first contention is that the Applicants have provided insufficient evidence to demonstrate reasonable assurance of adequate protection for public health and safety. The Commonwealth’s second contention is that the NRC cannot approve the LTA, the Exemption Request, and the Revised PSDAR until it conducts an environmental review under NEPA because the request is not bounded by the general or site-specific environmental impact

⁴ See, e.g., *In re Entergy Nuclear General Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station)*, Docket No. 50-293-LR, LBP-06-23, at 9 (October 16, 2006) (ADAMS Accession No. ML062890259) (finding that “the Massachusetts Attorney General has standing to participate in proceeding” concerning Entergy’s application to renew its operating license for Pilgrim).

statement. The Commonwealth supports each contention, with facts and expert opinions. These matters are within the scope of the proceeding and material to the findings the NRC must make to support the proposed license transfer and amendment. Both contentions thus meet the requirements of 10 C.F.R. § 2.309(f) and are therefore admissible.

The Atomic Energy Act grants the Commonwealth a right to a hearing in this proceeding because it, among other things, concerns an application to “transfer control” of Pilgrim and Pilgrim’s operating and ISFSI licenses to Holtec, substantively “amend” Pilgrim’s operating license by deleting the license’s existing \$50 million contingency allowance for decommissioning costs, and “modif[y]” the Commission’s regulations by granting the Exemption Request. 42 U.S.C. § 2239(a)(1)(A). Contrary to the Commission’s perfunctory notice and refusal to accept comment on the issue, *see* 84 Fed. Reg. at 817 col.2, the contentions and supporting factual statements and expert opinions demonstrate that “significant hazards” exist regarding the operating license transfer request and that “genuine issue[s exist] as to whether the health and safety of the public will be significantly affected” by the ISFSI license transfer request. *See* 10 C.F.R. § 2.1315(a). The Commission and its staff may not “prejudge the merits of the issues raised by a proposed license amendment,” *San Luis Obispo Mothers for Peace v. U.S. Nuclear Regulatory Comm’n*, 799 F.2d 1268, 1270 (9th Cir. 1986), as has apparently occurred here, and, accordingly, the Commission may not allow the LTA and Exemption Request before it holds a hearing on the issues raised in this Petition, *see id.* at 1271. Moreover, the Commission did not, as required by the AEA, consult with the Commonwealth in making the “no significant hazards consideration” finding in its Federal Register Notice. 42 U.S.C. § 2239(a)(2)(A).

CONTENTION I

The Applicants Failed to Provide Sufficient Evidence to Demonstrate That, If Approved, There Will be Reasonable Assurance of Adequate Protection for Public Health and Safety as Required by Section 182(a) of the Atomic Energy Act (42 U.S.C. § 2232(a)).

A. Contention

1. The Commonwealth specifically incorporates by reference, as if fully set forth here, the attached Declarations of Brewer, Howland, Locke, Newhard, Priest and all paragraphs under Contention II.⁵

2. Entergy and Holtec have not presented sufficient evidence to the NRC of adequate financial assurance to meet the statutory and regulatory requirements for the proposed LTA, Exemption Request, and Revised PSDAR as required by Section 182(a) of the Atomic Energy Act. 42 U.S.C. § 2232(a). Specifically, the LTA, Exemption Request, and the Revised PSDAR involve a potential significant safety hazard and environmental hazard because the Applicants have failed to present sufficient evidence to demonstrate that there will exist a reasonable assurance of adequate protection for public health and safety if the requested action is allowed, as required by 42 U.S.C. § 2232(a), 10 C.F.R. § 50.82(a)(8)(i)(B) and (C), and 10 C.F.R. § 50.75(h)(1)(iv). The Commonwealth requests a hearing to address these issues.

⁵ Consistent with 10 C.F.R. § 2.309(f)(1)(ii), the bases for the Commonwealth's contentions are not all the bases or all the details of the bases that support the contention, but merely "a brief explanation of the basis for the contention."

B. Basis for Contention**1. The License Transfer and Amendment Request, Exemption Request, and Revised Post-Shutdown Decommissioning Activities Report Do Not Comply with 10 C.F.R. § 50.82(8)(i)(B) and (C).**

3. The LTA, Exemption Request, and Revised PSDAR, fail to comply with 10 C.F.R. § 50.82(a)(8)(i)(B) and (C). Those regulations explicitly require licensees to maintain a level of financial assurance and utilize decommissioning funds in a manner that is sufficient to protect public health, safety, and the environment in the event “unforeseen conditions or expenses arise.” 10 C.F.R. § 50.82(a)(8)(i)(B). And the NRC prohibits the use of trust funds in a way that would “inhibit the ability of the licensee to complete funding of any shortfalls in the decommissioning trust needed to ensure the availability of funds to ultimately release the site and terminate the license.” 10 C.F.R. § 50.82(a)(8)(i)(C).

4. The Atomic Energy Act requires the NRC to ensure financial assurance to protect public health, safety, and the environment:

The NRC has a statutory duty to protect the public health and safety and the environment. The requirements for financial assurance were issued because inadequate or untimely consideration of decommissioning, specifically in the areas of planning and financial assurance, could result in significant adverse health, safety and environmental impacts. The requirements are based on extensive studies of the technology, safety, and costs of decommissioning (53 FR 24018). The NRC determined that there are significant radiation hazards associated with non-decommissioned nuclear reactors. The NRC also determined that the public health and safety can best be protected if its regulations require licensees to use methods which provide reasonable assurance that, at the time of termination of operations, adequate funds are available so that decommissioning can be carried out in a safe and timely manner and that lack of funds does not result in delays that may cause potential health and safety problems (53 FR 24018, 24033). The purpose of financial assurance is to provide a second line of defense, if the financial operations of the licensee are insufficient, by themselves, to

ensure that sufficient funds are available to carry out decommissioning (63 FR 50465, 50473).⁶

In short, “assuring adequate funds for a reactor owner to meet its decommissioning obligations is part of the bedrock on which NRC has built its judgment of reasonable assurance of adequate protection for the public health and safety and protection of the environment.” *In re Entergy Nuclear Vermont Yankee, LLC*, Dkt. No. 50-271-LA-3, LBP-15-24, at 22 (Aug. 31, 2015) (citation omitted), *vacated as moot*, CLI-16-8, 93 N.R.C. 463 (June 2, 2016).

5. The LTA is explicitly intertwined with Holtec’s Exemption Request and Holtec’s plan for immediate decommissioning as described in its Revised PSDAR, which includes cost estimates for decommissioning, spent fuel management, and site restoration. Indeed, Holtec acknowledges that it needs the requested exemption from 10 C.F.R. § 50.82(a)(8)(i)(A)’s decommissioning trust fund account use restriction because Holtec needs to use those funds to cover its spent fuel management costs and because it “*must*” perform “site restoration activities” “prior to completion of radiological decommissioning.” LTA, Encl. 2, at E-1. In claiming that Holtec is financially qualified to become the licensee, Entergy and Holtec also admit that “Holtec . . . will be responsible for funding the costs of decommissioning, spent fuel management and site restoration,” and that the trust fund “will be adequate to fund the costs of decommissioning Pilgrim, spent fuel management, and site restoration including the eventual cost for decommissioning the ISFSI.” LTA at 16-17. Consequently, approving the LTA request effectively approves the Revised PSDAR and its financial and environmental analysis, which estimates—even without accounting for the significant contingencies discussed below—that only

⁶ NRC, *Questions and Answers on Decommissioning Financial Assurance*, Encl. 5, at 1 (ADAMS Accession No. ML111950031).

\$3.6 million will remain in the fund on the predicted license termination date. The Revised PSDAR is thus material to this proceeding “because it concerns the real-world consequences of approving the [license amendment request].” *In re Entergy Nuclear Vermont Yankee, LLC*, LBP-15-24, at 41. The LTA also relies on aspects of Entergy’s previous PSDAR and Decommissioning Cost Estimate.

6. Entergy and Holtec have an obligation to present the Commission with “[i]nformation” that is “complete and accurate in all material respects,” 10 C.F.R. § 50.9(a), and the Commonwealth may, accordingly, “rely on alleged inaccuracies and omissions” in the LTA, Exemption Request, and Revised PSDAR to challenge the requests in them, *In re Entergy Nuclear Vermont Yankee, LLC*, Dkt. No. 50-271-LA-3, LBP-15-24, at 13. In this case, as explained further below, Entergy and Holtec have failed to: (i) acknowledge or justify the requested elimination of the \$50 million contingency fund in Entergy’s license; (ii) acknowledge and consider the financial implications of an outstanding, \$40 million legal claim on Pilgrim’s Decommissioning Trust Fund; (iii) provide sufficient information to ascertain whether Holtec’s Cost Estimate adequately accounts for unanticipated costs; and (iv) independent of the foregoing issues, provide sufficient financial assurance to decommission and restore the site and manage the spent nuclear fuel onsite indefinitely.

Proposed Elimination of the Contingency Fund

7. In Entergy’s existing operating license for Pilgrim, which was renewed in May 2012, *see* Renewed Facility Operating License No. DPR-35, the Commission maintained the requirement that Entergy “have access to a contingency fund of not less than fifty million dollars (\$50m) for payment, if needed, of Pilgrim operating and maintenance expenses, the cost to transition to decommissioning status in the event of a decision to permanently shut down the

unit, and *decommissioning costs*,” *id.* at 4 ¶ J.4 (emphasis added). The Commission required both that the contingency fund be independent of Entergy’s decommissioning trust fund assurance obligations (i.e., the Commission will evaluate compliance with the trust fund financial assurance requirements without reference to the \$50 million license contingency allowance requirement), and that Entergy “will” use any funds remaining at the time of decommissioning for decommissioning purposes if the funds are needed “for safe and prompt decommissioning.” *Id.* In other words, the Commission anticipated that the \$50 million contingency allowance would be drawn on to cover “unforeseen conditions or expenses.” *See* 10 C.F.R. § 50.82(a)(8)(i)(B). As the Commission has previously acknowledged, such a contingency allowance is particularly important for merchant reactors like Pilgrim, which cannot collect additional money from ratepayers in the event of a funding shortfall or supplement existing funds with new revenue generated through the sale of electricity after shutdown. *See* 61 Fed. Reg. 39,278, 39,285 (July 29, 1996).

8. The Commission included the \$50 million contingency fund requirement on its own initiative, as supported and requested by NRC staff, in 1999 as a condition of the Commission’s approval of the transfer of Pilgrim’s operating license from Boston Edison Company to Entergy on April 29, 1999. The Commission retained the contingency provision when it approved Entergy’s application to renew its operating license in May 2012—just seven years ago. Yet, without any mention or justification in the LTA whatsoever, Entergy and Holtec propose that the Commission strike from Entergy’s license the \$50 million contingency fund allowance intended to cover, among other things, unforeseen conditions and expenses that arise during

decommissioning. LTA, Encl. 1, Attach. A, at 4 ¶ J.4 (red line).⁷ This omission in and of itself justifies this hearing request. Indeed, the proposed red line deletion is not a conforming change like substituting Holtec's name for Entergy's throughout the Operating License, but instead a substantive change to a condition the Commission required to ensure adequate protection to the health and safety of the public in light of the unique financial risk that merchant generators like Pilgrim face in a deregulated market like Massachusetts. The fact, as explained below, that Holtec needs such a contingency fund to comply with the Commission's financial assurance requirements cements that justification.

Outstanding Boston Edison Legal Claim

9. Entergy and Holtec also fail to inform the Commission that Boston Edison Company (doing business as Eversource) has an outstanding legal claim that is likely to decrease the amount of money that Holtec may recover from the U.S. Department of Energy (DOE) for spent fuel management by approximately \$40 million. When Boston Edison Company sold Pilgrim to Entergy, Boston Edison claims that it provided Entergy with funds to cover post-decommissioning spent fuel management costs. *In re Boston Edison Co.*, 1999 WL 239703, 192 P.U.R. 4th 418, 3-4 (Mass. D.T.E. 1999). Boston Edison then sued DOE to recover those costs, arguing that absent DOE's breach of the Standard Contract, Boston Edison would not have incurred them.

10. After a lengthy trial, the United States Court of Claims Federal Circuit Court agreed with Boston Edison and valued Boston Edison's damages at approximately \$40 million. Subsequently, the United States Court of Appeals for the Federal Circuit agreed that Boston

⁷ Indeed, Applicants' tactic of burying this change in the red line version without explanation highlights the need to closely scrutinize Applicants' license transfer and amendment request.

Edison had spent approximately \$40 million due to DOE's breach at the time of sale, but "the estimated value of future damages agreed upon by two private parties should not set the amount of the government's liability for partial breach." *Boston Edison v. United States*, 658 F.3d 1361, 1367 (Fed. Cir. 2011). Thus, "the damages of DOE's pre-transfer breach cannot be determined until the actual costs of [spent nuclear fuel] disposal are incurred at the time of decommissioning." *Boston Edison Co. v. United States*, 106 Fed. Cl. 330, 334 (Fed. Cl. 2012) (citing *Boston Edison*, 658 F.3d at 1367). Consequently, the Court reserved Boston Edison's claim of \$40 million until after the commencement of decommissioning and spent fuel management costs are incurred. *Entergy Nuclear Generation Co. v. United States*, 130 Fed. Cl. 466, 472-73 (Fed. Cl. 2017) (citations omitted). Throughout this litigation, DOE has consistently stated that if the Court orders DOE to pay Boston Edison damages for spent fuel management, DOE will reduce the amount that it pays Entergy by the same (i.e., DOE will not pay twice for the same spent fuel management damages).

11. Entergy and Holtec have not accounted for this potential reserved claim in the LTA and related Cost Estimate. Indeed, Holtec does not even mention Boston Edison's future claim when discussing future litigation or settlement of claims due to DOE's breach of the Standard Contract. *See* LTA, Encl. 1, at 18-19. Instead, Holtec states that it intends to recover from DOE all of its spent fuel management costs caused by DOE's breach of the Standard Contract. *Id.* However, this reliance is misplaced because it fails to acknowledge that any spent fuel management costs it recovers is likely to be reduced by at least the approximately \$40 million potentially due to Boston Edison. This omission provides further reason to question the analysis that adequate financial assurance exists in this case.

Failure to account for unanticipated costs

12. The LTA, Exemption Request, and Revised PSDAR also fail to comply with 10 C.F.R. § 50.82(a)(8)(i)(B) and (C) because, as explained in detail in the attached declarations, there are multiple ways that Holtec could experience significant, unaccounted for, cost overruns. These cost overruns could very likely lead to a shortfall in the Decommissioning Trust Fund and an associated public health, safety, and environmental risk. They include:

(a) Delays in the work schedule leading to increased costs for overhead and project management. Even without any added direct costs, a delay in a single activity would likely delay the overall decommissioning schedule, which would lead to a significant, unaccounted for increase in costs for overhead and project staffing and management. Brewer Decl. ¶¶ 8-9;

(b) Compliance with existing Massachusetts standards for non-radiological hazardous materials cleanup under the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, Mass. Gen. L. c. 21E, §§ 1-22 (Chapter 21E) and its regulations, the Massachusetts Contingency Plan (MCP), 310 C.M.R. §§ 40.0000, *et seq.*, or unanticipated site conditions that are not accounted for in Holtec's Cost Estimate. Brewer Decl. ¶ 10; Locke Decl. ¶¶ 6-9; Howland Decl. ¶¶ 6-7. These unaccounted-for requirements and issues could result in higher than estimated costs and a longer timeline for completion, which, in turn, could result in delays and a shortfall in the Decommissioning Trust Fund. Brewer Decl. ¶ 10;

(c) The likely discovery of previously unknown radiological or non-radiological contamination. Brewer Decl. ¶ 11; Locke Decl. ¶¶ 3-4; Howland Decl. ¶¶ 5-7; Priest Decl. ¶¶ 11-14. Holtec has not yet performed a site characterization of Pilgrim. Locke

Decl. ¶¶ 7-9; Howland Decl. ¶¶ 5-7; Priest Decl. ¶¶ 5-14. Thus, Holtec based its cost estimate only on historical data, which it has not disclosed in its Revised PSDAR.

Brewer Decl. ¶ 11; Locke Decl. ¶¶ 7-9; Howland Decl. ¶¶ 5-7. The actual extent of any contamination is thus unknown. Locke Decl. ¶¶ 7-9; Howland Decl. ¶¶ 5-7; Priest Decl. ¶¶ 5-14. In the likely event that currently unidentified and unknown contamination is discovered, it could significantly increase the cost of decommissioning and site restoration. Brewer Decl. ¶ 11; Howland Decl. ¶¶ 5-6;

(d) A radiological incident at the site. Brewer Decl. ¶ 12. Once the spent nuclear fuel is in dry cask storage, the chances of a radiological incident decreases. *Id.* However, until that occurs, there is a risk of a radiological event. *Id.* For instance, there is a risk of a radiological event occurring during the transfer of spent nuclear fuel into the spent fuel pool, and again into dry casks. *Id.* Should this occur, a shortfall in the Decommissioning Trust Fund could occur from significant increases in both costs and delays. *Id.*;

(e) A DOE requirement to repackage spent nuclear fuel into new containers that DOE has approved for transportation in the event DOE fulfills its legal obligation to take possession of all spent nuclear fuel stored onsite. Brewer Decl. ¶ 13. Holtec assumes that DOE will accept the spent nuclear fuel as-is, i.e., in the dry storage casks acquired by Entergy and Holtec. *Id.* However, DOE could arguably require the spent nuclear fuel to be repackaged into certain specific dry casks for transport. *Id.* If DOE were to require repackaging of the spent nuclear fuel, this could require Holtec to incur significant unaccounted-for costs, especially because Holtec will already have dismantled the spent nuclear fuel pool. *Id.*;

(f) A successful effort by DOE to recover all or some of its past reimbursements for the packaging of spent nuclear fuel into dry casks. Brewer Decl. ¶ 14. To date, Entergy has successfully recovered from DOE the costs to package the spent nuclear fuel into dry casks. *Id.* However, DOE may attempt to recover these original packaging costs from Entergy. *Id.* If the DOE is successful, this could lead to a significant cost overrun because the cost for loading three casks, and starting five others, was \$6 million, and Pilgrim will require over 60 casks to load in total. *Id.*;

(g) Holtec's failure to secure permission to dispose of Class B and C waste with the Texas Compact Commission. Newhard Decl. ¶ 7. If Holtec cannot secure permission to dispose of its Class B and C waste at the Texas Facility, then, based on the NRC's own recent estimate, Holtec's waste disposal costs may increase by as much as \$170 million, *id.* ¶ 8—an amount that far exceeds the \$3.6 million balance that Holtec's Cost Estimate anticipates remaining in the Fund at the time of license termination.

13. Each of the potential cost overruns listed above could lead to a significant shortfall in the Decommissioning Trust Fund. The shortfall could be greater if more than one of the above events occurs, or if Holtec encounters other cost overruns not listed above.

14. The likelihood of at least one of these events occurring is significant, if not already present. For example, tritium has been detected in groundwater on the Pilgrim site, and the exact cause of this tritium contamination has yet to be definitively identified. Priest Decl. ¶¶ 8-10. During the groundwater sampling period, which began in 2007, groundwater tritium concentrations fluctuated both above and below the U.S. Environmental Protection Agency's

(EPA) drinking water limit.⁸ If later sampling during the decommissioning process discovers exceedances, Holtec will be required to address those exceedances—at great expense—because “keeping radionuclides below the EPA limit is necessary to maintain public safety at a decommissioning facility.” *In re Entergy Nuclear Vermont Yankee, LLC*, LBP-15-24, at 25.

There is also contaminated soil located in multiple locations around the site, and other historical releases into the environment associated with a former condenser tube refurbishment building. Priest Decl. ¶¶ 8-10; *see also* Locke Decl. ¶¶ 8-9 (identifying releases reported to the Massachusetts Department of Environmental Protection (MassDEP)). The age of Pilgrim also makes it likely that Holtec will discover polychlorinated biphenyls (PCBs) and asbestos in and around the buildings. Howland Decl. ¶ 7; Locke Decl. ¶ 6. The cost to legally remediate, transport, and dispose of this non-radiological contamination, much of which is likely to be commingled with radiologically contaminated material, can be extraordinary. Yet, the LTA, Revised PSDAR, and associated Cost Estimate fail to consider the costs associated with these contingencies, which, given site-specific information and experience at other decommissioning projects, are likely to occur. Brewer Decl. ¶¶ 8-9, 11; Howland Decl. ¶¶ 5-7; Priest Decl. ¶¶ 11-14.

15. The NRC has held in prior proceedings that, for example, when evaluating potential expenses related to the cleanup of other nuclear sites, a decommissioning trust fund shortfall from groundwater contamination is a significant possibility, and a shortfall arising from unexpected spent fuel management expenses is “very possible.”⁹ *See also* Brewer Decl. ¶¶ 13, 15 (noting that the cost to construct a fuel transfer station is between \$150 and \$450 million and

⁸ *See* Pilgrim Nuclear Power Station (PNPS): Tritium in Groundwater Monitoring Wells (Feb. 7, 2014); <https://www.mass.gov/files/documents/2016/07/vv/pnps-update-02-07-14.pdf>.

⁹ *See In re Entergy Nuclear Vermont Yankee, LLC*, LBP-15-24, at 26.

that it is “very possible” that Holtec would incur \$7 million in spent fuel management costs beyond its currently estimated 2016 end date). These, and the other potential funding shortfalls listed above, are thus not “remote and highly speculative.”¹⁰ Even if Holtec is aware of the known and likely radiological and non-radiological contamination at Pilgrim, until a full site characterization is completed, including a complete assessment of the vertical and horizontal extent of the non-radiological contamination, Holtec will not know the extent of these contingencies or if there are any others. Priest Decl. ¶¶ 11-14; Locke Decl. ¶¶ 7-9; Howland Decl. ¶¶ 5-7.

16. Indeed, Holtec’s Cost Estimate is precisely that: an *estimate*, not a guarantee. And, as described in detail in the attached Brewer, Howland, Locke, Priest, and Newhard Declarations, Holtec’s Cost Estimate itself is deficient in many respects that cause it to significantly underestimate possible costs to decommission and restore the site and manage Pilgrim spent nuclear fuel. At Connecticut Yankee, for example, previously undiscovered strontium-90 required excavation and remediation of a large trench around the reactor water storage tank. Priest Decl. ¶¶ 11-12. The cost of performing this unanticipated work *doubled* the estimated decommissioning costs for Connecticut Yankee. During the decommissioning of Maine Yankee, the licensee encountered pockets of highly contaminated groundwater dammed up by existing structures, which caused significant cost increases. Yankee Rowe, located in Massachusetts, incurred similarly significant decommissioning cost increases when PCBs were discovered in paint covering the steel from the vapor container that housed the nuclear reactor, as well as in sheathing on underground cables. Howland Decl. ¶ 5. It is thus reasonably foreseeable that

¹⁰ See *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016, 1030 (9th Cir. 2006) (citations omitted) (outlining when outcome is “remote and highly speculative”).

Holtec's site-specific cost estimate significantly underestimates the likely actual costs that it will incur.

Unreasonable assumptions regarding spent fuel management costs

17. Holtec's assumptions about the long-term storage of spent fuel and the costs associated with it also fail to demonstrate how Holtec will ensure the availability of funds to terminate both the operating and ISFSI licenses. In particular, Holtec's site specific cost estimate is based on the assumption that DOE will begin removing spent fuel from the site in 2030 and that DOE will complete removal of all spent fuel by 2062. Revised PSDAR, Encl. 1, at 43. Nowhere, however, does Holtec explain or seek to justify this conclusion. Holtec's assumptions are incongruous with the NRC's analysis in the Continued Storage Rule, as confirmed by ASLB in a prior proceeding, that "the indefinite storage of spent fuel on-site is a very possible outcome."¹¹ See also Brewer Decl. ¶ 15. And, in that regard, NRC staff have previously acknowledged that "the potential consequences of insufficient off-site storage for spent fuel was precisely one of the unforeseen conditions that 10 C.F.R. § 50.82(a)(8)(i)(B) was promulgated to address."¹² Holtec fails to explain how it would address this contingency of indefinite onsite storage, including all safety and environmental concerns regarding transferring fuel into new dry casks every 100 years. Brewer Decl. ¶ 15. The potential expenses identified in the NRC's Continued Storage Rule would include for Pilgrim: (a) the construction of a Dry Fuel Transfer Station; (b) the purchase of 61 new casks and all other labor and material costs for transferring the fuel every 100 years; and (c) the costs of maintaining security at the site for any time after 2063 should onsite storage continue past that time. *Id.* What is more, even if its assumption

¹¹ *In re Entergy Nuclear Vermont Yankee, LLC*, LBD-15-24, at 26 (citations omitted).

¹² *Id.* (citations omitted).

does prove to be correct, Holtec also fails to reconcile why its ISFSI decommissioning site estimate is half of what Entergy has estimated those costs to be (\$4,197,000.00 (Holtec estimate) versus \$9,400,000.00 (Entergy estimate)).¹³ These significant deficiencies thus provide an additional reason why the Commonwealth's contention is admissible and requires a hearing.

Likelihood of Price Overruns and Delays

18. Decommissioning a nuclear power plant is a major industrial activity with many unknowns. *See* Howland Decl. ¶¶ 4-6; Locke Decl. ¶ 6. The NRC's website currently claims that "[a]lthough there are many factors that affect reactor decommissioning costs, generally [decommissioning] range[s] from \$300 million to \$400 million."¹⁴ Yet, a few years ago, the NRC recognized that under its "minimum formula" for decommissioning, every reactor will cost more than \$400 million to decommission.¹⁵ Further, in the few instances where operators have done site-specific cost estimates, the NRC has now seen multiple examples where those estimates resulted in expected costs which roughly double what the minimum formula predicted.¹⁶ In particular, four reactors (Diablo Canyon 1, Diablo Canyon 2, San Onofre 2, and San Onofre 3) each went from an estimate of \$521 million to an estimate of over \$1 billion.¹⁷

¹³ Compare Revised PSDAR, Encl. 1, App. A, Table A-1, with Letter from Entergy to NRC, *Update to Spent Fuel Management Plan Pursuant to 10 CFR 50.54(bb) Pilgrim Nuclear Power Station*; Docket No. 50-293; License No. DPR-35, Attach. 1, at 5 (Nov. 16, 2018) (ADAMS Accession No. ML18320A036).

¹⁴ NRC, *Background on Decommissioning Nuclear Power Plants*, <https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/decommissioning.html>.

¹⁵ *See, e.g.*, NRC, SECY-13-0105, at Summary Table (Oct. 2, 2013), <https://www.nrc.gov/reading-rm/doc-collections/commission/secys/2013/2013-0105scy.pdf> (listing estimated costs under the NRC's minimum formula ranging from \$438 million, counting River Bend Station as one unit, to over \$1 billion).

¹⁶ *See id.*

¹⁷ *Id.*

19. DOE has a similar track record of routinely underestimating the costs of remediating radiological contamination at the nuclear sites it oversees. For instance, a 2008 Government Accountability Office report notes that five DOE cleanup sites already have cost overruns of more than 40 percent at best, and at least one of those sites is at risk of more than doubling its expected costs.¹⁸ Since the 2008 report, DOE increased the projected lifecycle completion costs by at least 100% for nearly every site listed.¹⁹

20. Decommissioning delays by themselves can cause significant decommissioning cost increases, and there is no reason to believe that Holtec would be immune from these cost increases, especially given its ambitious schedule. Brewer Decl. ¶¶ 8-9. Indeed, Holtec recently experienced a long delay at another nuclear decommissioning site due to a Holtec mishap: San Onofre Nuclear Generating Station (“San Onofre”). *Id.*²⁰ There, a Holtec employee was lowering a dry cask into a Cavity Enclosure Container at the ISFSI pad, when the cask got caught on an inner ring, causing the slings supporting the canister to come off while the canister remained wedged. *Id.*²¹ As a result of this near miss, fuel transfer operations at San Onofre have

¹⁸ GAO, *Action Needed to Improve Accountability and Management of DOE’s Major Cleanup Projects*, GAO-08-1081, at 13 (Sept. 2008), <http://www.gao.gov/new.items/d081081.pdf>.

¹⁹ *Compare id.*, with DOE, *Cleanup Sites: Progress through Action*, <https://www.energy.gov/em/cleanup-sites>.

²⁰ San Onofre is operated by Southern California Edison, which contracted with Holtec to assist in decommissioning the site.

²¹ Southern California Edison Press Release: Southern California Edison Statement on Spent Nuclear Fuel Canister (Aug. 10, 2018), <https://www.songscommunity.com/news/releases/southern-california-edison-statement-on-spent-nuclear-fuel-canister>; Southern California Edison Press Release: SCE to Brief Path Forward for Fuel Transfer Operations Restart (Nov. 28, 2018), <https://www.songscommunity.com/news/releases/sce-to-brief-path-forward-for-fuel-transfer-operations-restart>.

been suspended until at least February 2019, causing substantial cost increases due to work delay and required assessment. *Id.*²²

21. The NRC subsequently investigated Holtec's actions at San Onofre. It identified "two apparent violations," which "involved the failure to: (1) ensure important-to-safety equipment was available to provide redundant drop protection features for a spent fuel canister during downloading operations; and (2) make a timely notification to the NRC Headquarters Operations Center for the August 3, 2018, disabling of important-to-safety equipment."²³ The NRC cited three Severity Level IV violations, "involv[ing] failures to: (1) identify conditions potentially adverse to quality for placement into [the licensee's] corrective actions program; (2) assure that operations of important to safety equipment were limited to trained and certified personnel or under direct supervision; and (3) provide adequate procedures for dry cask storage operations involving downloading operations."²⁴

22. Though a catastrophic event did not occur as a result of the near miss at San Onofre, its occurrence certainly weighs in favor of prudent financial assurance requirements. A similar mishap at Pilgrim could potentially place the public health, safety, and environment in great danger. *See* Brewer Decl. ¶ 12. At the very least, barring a major radioactive event, the NRC would certainly investigate, and Pilgrim would likely halt decommissioning activities for at least several months. This delay alone could lead to a shortfall in the Decommissioning Fund.

²² Southern California Edison Press Release: SCE to Brief Path Forward for Fuel Transfer Operations Restart (Nov. 28, 2018), <https://www.songscommunity.com/news/releases/sce-to-brief-path-forward-for-fuel-transfer-operations-restart>.

²³ Ltr. from NRC, to Southern California Edison Company, *Revised NRC Special Inspection Report 050-00206/2018-005, 050-00361/2018-005, 050-00362/2018-005, 072-0041/2018-001 And Revised Notice of Violation*, San Onofre Nuclear Generating Station, EA-18-155, at 1 (Dec. 19, 2018) (ADAMS Accession No. ML18341A172).

²⁴ *Id.* at 3.

Holtec's inadequate contingency allowance and uncertainty risk

23. Holtec's attempt to account for contingencies and uncertainty risk is woefully deficient. First, Holtec's site-specific cost estimate relies on an undisclosed Monte-Carlo analysis that resulted in a claimed application of a 17 percent contingency allowance to license termination, spent fuel management (except for ISFSI decommissioning), and site restoration costs. Revised PSDAR, Encl. 1, at 39-41. Unlike Entergy's cost estimate's contingency allowance, which follows standard industry practice, Holtec's contingency allowance accounts for traditional contingency "as well as increased costs for discrete events and project uncertainties." Brewer Decl. ¶ 8. Despite Holtec's claimed inclusion of uncertainties and risks not accounted for in Entergy's contingency allowance, "the total license termination costs for both estimates are essentially equal when the costs for SAFSTOR in the Entergy estimate are excluded," *id.*, and fails to offer "any basis or explanation for how the estimated cost does not increase from that of Entergy when allowance for other types of risk are included in the Holtec estimate," *id.* ¶ 9. Nor, for that matter, does Holtec disclose how it applied its own derived 17 percent contingency allowance in its cost estimate, including to particular line items. *Compare* Revised PSDAR, Encl. 1, at 39-41, *with* Brewer Decl. ¶ 9.

24. Second, even if valid, Holtec's 17 percent contingency allowance is not a contingency allowance at all. Instead, Holtec makes clear that the undisclosed amount of "the Contingency Allowance . . . is expected to be *fully consumed*" during "decommissioning." Revised PSDAR, Encl. 1, at 41 (emphasis added). In other words, its contingency allowance covers costs *it expects* to incur. In contrast, Holtec provides no information quantifying the amount, if any, it includes in its cost estimate for uncertainty risks, or the costs that it may incur due to "unforeseen conditions or expenses that arise" during decommissioning. *See* 10 C.F.R. § 50.82(a)(8)(i)(B).

Holtec acknowledges these uncertainty risks associated with the scope and schedule of decommissioning activities, but provides insufficient information regarding how they factor into its analysis.

Holtec's Corporate Structure Increases Risks

25. The financial and attendant safety, health, and environmental risks associated with the LTA are further increased by the corporate structure of the proposed transferee and new site operators. Holtec Decommissioning International and Holtec Pilgrim, the proposed licensee and new site operator, respectively, are both structured as Limited Liability Companies (“LLCs”). LTA at 1, Fig.2: Simplified Organization Chart (Post-Transfer). This raises a significant risk that the owner and operator could at some point have liabilities that outstrip their assets and could therefore choose to file for bankruptcy before site decontamination and restoration are complete. *See* Newhard Decl. ¶ 5. This, in turn, raises numerous thus-far-unanalyzed health, safety, and environmental concerns, including the significant possibility that certain decommissioning, spent fuel management, or site restoration activities will not occur due to lack of funding; thus, potentially leaving the Commonwealth and its taxpayers to bear the financial burden and responsibility for finishing the work.

26. Because Holtec is an independent company (rather than a rate-regulated utility), it cannot go back to ratepayers if it has underestimated the costs of decommissioning, spent fuel management, or site restoration. Nor can anyone necessarily assume that Holtec can obtain additional funds from a parent company because, as the NRC has said previously, a “parent company is not an NRC licensee” and the “NRC does not have the authority to require a parent company to pay for the decommissioning expenses of its subsidiary-licensee, except to the extent

the parent may voluntarily provide” a parent company guarantee.²⁵ Holtec is also involved in other decommissioning projects at other nuclear plant sites, such as San Onofre in California, which will potentially draw upon its parent company’s resources and detract from the attention needed at Pilgrim. The lack of a guaranteed ratepayer base or a parent company that is liable for any cost overruns raises numerous thus-far-unanalyzed health, safety, and environmental concerns, including the significant possibility that certain decommissioning, spent fuel management, or site restoration activities will not occur due to lack of funding.

2. The License Transfer and Amendment, and Revised PSDAR Request Does Not Comply with 10 C.F.R. § 50.75(h)(1)(iv).

27. Holtec’s proposed use of the Decommissioning Trust Fund does not comply with 10 C.F.R. § 50.75(h)(1)(iv) because disbursements from the Decommissioning Trust Fund “are restricted to decommissioning expenses.” 10 C.F.R. § 50.75(h)(1)(iv). This “do[es] not include the cost of removal and disposal of spent fuel or of nonradioactive structures and materials beyond that necessary to terminate the license.” *Id.* at § 50.75 n.1. Neither Entergy nor Holtec have yet obtained an exemption to allow either of them to use the Decommissioning Trust Fund for site restoration or spent fuel management expenses. Thus, until an exemption is granted, the proposed LTA and Holtec’s Revised PSDAR, would violate these regulatory requirements because they depend on Holtec’s ability to use the Decommissioning Trust Fund to cover site restoration and spent nuclear fuel management costs.

28. Holtec presumes that it can use the Decommissioning Trust Fund for site restoration and spent fuel management expenses based on its Exemption Request, which was filed as an enclosure to, and incorporated in, the LTA. However, this exemption has not been, and might

²⁵ NRC, *Questions and Answers on Decommissioning Financial Assurance*, Encl. 5, at 2 (ADAMS Accession No. ML11195031).

not be, granted. Holtec does not consider in its analysis the possibility that the NRC may not grant the requested exemption.²⁶ Instead, Entergy and Holtec make their acceptance of the Commission's potential approval of the LTA contingent on the Commission's decision to grant the Exemption Request. Holtec does not consider the consequences of an NRC decision to deny the Exemption Request, because it lacks sufficient funds to itself pay for site restoration or spent nuclear fuel management costs²⁷—a point that underscores the fragility of the financial viability of the proposed license transfer as currently structured.

29. The Commonwealth is entitled to a hearing on the Exemption Request to use the Decommissioning Trust Fund for spent fuel management and site restoration expenses because it is “directly related” and inextricably intertwined with this license transfer and amendment.²⁸ As the NRC has noted, “[t]o hold otherwise would exclude critical safety questions from licensing hearings merely on the basis of an ‘exemption’ label.”²⁹ Until Holtec receives such an exemption, the regulatory requirements of disbursements from the Decommissioning Trust Fund “are restricted to decommissioning expenses.” 10 C.F.R. § 50.75(h)(1)(iv). All withdrawals must be “for legitimate decommissioning activities consistent with the definition of decommissioning in [10 C.F.R.] § 50.2.” 10 C.F.R. § 50.82(a)(8)(i)(A). These are “regulation[s] that otherwise would have applied to the licensing” process, and an exemption from these

²⁶ See LTA, Encl. 1, at 18 (stating that denial of the exemption request would prevent the transaction from occurring).

²⁷ See *id.*

²⁸ *In re Private Fuel Storage, LLC*, CLI-01-12, 53 N.R.C. 459, 476 (2001); see also, e.g., *In re Honeywell Int'l, Inc.*, CLI-13-1, 77 N.R.C. 1, 7 (2013) (“But when a licensee requests an exemption in a related license amendment application, we consider the hearing rights on the amendment application to encompass the exemption request as well.”).

²⁹ *In re Private Fuel Storage, LLC*, CLI-01-12, 53 N.R.C. at 467, see also, e.g., *id.* at 467, n.3 (“We are aware of no licensing case where we have declared exemption-related safety issues outside the hearing process altogether.”) (citations omitted).

regulations is thus properly within the scope of this license transfer and amendment application.³⁰

30. The Commonwealth is entitled to a hearing on the Exemption Request, because allowing the request without conditions poses a significant risk that insufficient funds will exist to decommission and restore the site and manage spent nuclear fuel on an indefinite basis. As currently proposed, Holtec plans to withdraw approximately \$500 million from the Decommissioning Trust Fund to cover what it characterizes as its spent nuclear fuel costs through 2063, and to then seek to recover those costs from DOE based on a claimed breach of the Standard Contract. Holtec, however, nowhere commits to placing the funds it recovers on a recurring basis from DOE back into the Decommissioning Trust Fund to cover ongoing costs and contingencies until DOE removes the spent fuel and the license is terminated, or even to make all of those funds available to cover such a potential shortfall in the Decommissioning Trust Fund prior to license termination. Instead, it appears that Holtec may use the Exemption Request as a means to divert those funds from the Decommissioning Trust Fund and into its own accounts for whatever use it desires. Given the risks of a potential shortfall in the Decommissioning Trust Fund outline above, an NRC decision to unconditionally grant the Exemption Request would be wholly unreasonable and a hearing on this issue (and the issues related to it) is thus necessary.

³⁰ *In re Entergy Nuclear Vermont Yankee, LLC & Entergy Nuclear Operations, Inc.*, CLI-16-12, 2016 WL 3476306, at *3 (2016); *see also Consumers Power Co. (Midland Plant, Units 1 & 2)*, CLI-74-3, 7 A.E.C. 7, 12 (1974) (holding that the Commission “will not close [its] eyes to the fact that this proceeding, though separate from the earlier ones for some purposes, is merely another round” in a series of related matters).

CONTENTION II

The License Transfer and Amendment Request Do Not Include The Environmental Report Required By 10 C.F.R. § 51.53(d), and Have Not Undergone the Environmental Review Required by the National Environmental Policy Act and 10 C.F.R. §§ 51.20, 51.70, and 51.101

A. Contention

31. The Commonwealth specifically incorporates by reference, as if fully set forth here, the attached Declarations of Brewer, Howland, Locke, Newhard, Priest and all paragraphs under Contention I.

32. The Commission must conduct, at a minimum, an environmental assessment or a Supplemental Environmental Impact Statement of the potential direct and indirect environmental consequences of approving the Applicants' LTA, Holtec's Exemption Request, and Holtec's revised PSDAR and Site-Specific Cost Estimate, because (i) the categorical exclusion in 10 C.F.R. § 51.22(c)(21) is inapplicable to the license transfer and amendment request and, regardless, special circumstances exist that would preclude reliance on it; (ii) the LTA, the Exemption Request, and the PSDAR create a plausible risk that insufficient funds will be available to completely decommission Pilgrim, restore the site, and manage spent nuclear fuel onsite indefinitely; and (iii) Holtec's PSDAR and Site-Specific Cost Estimate are not bounded by prior environmental analysis.

B. Basis for Contention

1. Regulatory Framework

33. The National Environmental Policy Act (NEPA) declares a national policy to, *inter alia*, "promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of [all people]." 42 U.S.C. § 4321. In this regard, NEPA requires all federal agencies, including the NRC, to prepare an Environmental Impact Statement

(EIS) to consider the environmental consequences of all proposed “major Federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(C); *accord* 10 C.F.R. § 51.20(a)(1). Federal action includes an agency decision that “permits action by other parties which will affect the quality of the environment.”³¹ To satisfy NEPA, agencies are required to take a “hard look” at the environmental consequences of a proposed action.³²

34. NEPA applies both to affirmative actions by an agency (such as a licensing decision) and to actions by a licensee that “are potentially subject to Federal control and reasonability.” “Actions include the circumstance where the responsible officials fail to act and that failure to act is reviewable by courts or administrative tribunals under the Administrative Procedure Act or other applicable law as agency action.”³³ In other words, NEPA responsibilities are triggered by the fact that a federal agency, as is the case here, “has actual power to control the project.”³⁴

35. NEPA established the Council of Environmental Quality (CEQ) in the Executive Office of the President and authorized CEQ to issue regulations applicable to all federal agencies to implement NEPA’s procedural requirements. 42 U.S.C. § 4344; 40 C.F.R. § 1500.3 (2018). CEQ’s regulations require federal agencies to adopt procedures to supplement the CEQ regulations. 40 C.F.R. §§ 1505.1, 1507.3.

36. The CEQ regulations allow a federal agency to prepare an Environmental Assessment (EA) to determine whether the agency is required to prepare an EIS. 40 C.F.R. § 1501.4(a)-(b). An EA is “a concise public document” that “[b]riefly provide[s] sufficient evidence and analysis

³¹ *Scientists’ Inst. For Pub. Info., Inc. v. Atomic Energy Comm’n*, 481 F.2d 1079, 1088 (D.C. Cir. 1973).

³² *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983).

³³ 40 C.F.R. § 1508.18; *see also* 5 U.S.C. § 551(13) (Administrative Procedure Act referring to an agency’s “failure to act.”)

³⁴ *Ross v. Fed. Highway Admin.*, 162 F.3d 1046, 1051 (10th Cir. 1998).

for determining whether to prepare an [EIS] or a finding of no significant impact [FONSI].” 40 C.F.R. § 1508.9(a)(1). An EA must include a discussion of alternatives to the proposed action that were considered by the federal agency. 40 C.F.R. § 1508.9(b). Only if an agency reasonably determines, based on an evaluation of all the evidence, that its action “will not have a significant effect on the human environment,” may it issue a Finding of No Significant Impact (FONSI).³⁵ In those circumstances, the FONSI must be accompanied by “a convincing statement of reasons to explain why a project’s impacts are insignificant.”³⁶ The EA and FONSI must also include consideration of “[t]he degree to which the proposed action affects public health or safety.”³⁷

37. The mere *possibility* of significant environmental impacts precludes a FONSI and triggers the need for an EIS.³⁸ An agency must “evaluate seriously the risk” that the problem will occur, and what environmental consequences would ensue in those circumstances.³⁹ NEPA explicitly requires an EIS if an action has “effects that *may be* major and which are *potentially* subject to Federal control and responsibility.” 40 C.F.R. § 1508.18 (emphasis added). Agencies are required to resolve “close call[s]” in favor of preparing an EIS.⁴⁰ Thus, the required NEPA

³⁵ 40 C.F.R. § 1508.13; *see also id.* § 1501.4, 1508.14; *New York v. NRC I*, 681 F.3d 471, 477 (D.C. Cir. 2012).

³⁶ *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998).

³⁷ 40 C.F.R. § 1508.27(b)(2); *see also Citizens Against Toxic Sprays, Inc. v. Bergland*, 428 F. Supp. 908, 927 (D. Or. 1977) (“No subject to be covered by an [environmental impact statement] can be more important than the potential effects of a federal [action] upon the health of human beings [and the environment].”); *Maryland-Nat’l Capital Park & Planning Comm’n v. U.S. Postal Service*, 487 F.2d 1029 (D.C. Cir. 1973).

³⁸ 42 U.S.C. § 4332(2)(C); *see also, e.g., Blue Mountains*, 161 F.3d at 1211.

³⁹ *Found. on Econ. Trends. v. Heckler*, 756 F.2d 143, 154 (D.C. Cir. 1985).

⁴⁰ *National Audubon Soc’y v. Hoffman*, 132 F.3d 7, 13 (2d Cir. 1997) (reversing a decision by the U.S. Forest Service not to prepare an environmental impact statement because the forest

analysis must be comprehensive and address all “potential environmental effects,” unless those effects are so unlikely as to be “remote and highly speculative.”⁴¹ Courts will reverse an agency’s decision not to prepare an EIS when the agency has failed to consider all of the substantially possible effects of its action.⁴² A “potential” significant effect suffices.⁴³

38. Determining whether the effect on the human environment is significant requires agencies to consider both the context of the action and the intensity of the potential environmental impacts. 40 C.F.R. § 1508.27. CEQ’s NEPA regulations list ten intensity factors agencies must consider. 40 C.F.R. § 1508.27(b) (listing the ten factors). Courts often consider the factors as a whole or as a group.⁴⁴ Courts frequently examine the agency’s consideration and analysis of these factors when deciding whether the agency was correct in issuing a FONSI.⁴⁵ Although there is not a “prescribe[d] weight to be given to these criteria,”⁴⁶ the NRC “must consider” these criteria.⁴⁷ The presence of intensity factors requires the preparation of an EIS.⁴⁸

Service failed to consider the possible effects of the challenged action); *see also id.* at 18 (Agencies should “err in favor of preparation of an” EIS).

⁴¹ *San Luis Obispo Mothers for Peace*, 449 F.3d at 1030.

⁴² *Id.* (finding NRC’s refusal under NEPA to consider environmental effects of terrorist attack on proposed ISFSI pad or nuclear facility in general was not reasonable).

⁴³ *Id.* at 1030; *see Found. on Econ. Trends*, 756 F.2d at 154 (“Ignoring possible environmental consequences will not suffice.”).

⁴⁴ *Sierra Club v. U.S. Forest Serv.*, 843 F.2d 1190, 1193 (9th Cir. 1988); *Found. for North Am. Wild Sheep v. U.S. Dep’t of Agric.*, 681 F.2d 1172, 1181-81 (9th Cir. 1982).

⁴⁵ *Sierra Club v. Van Antwerp*, 661 F.3d 1147 (D.C. Cir. 2011).

⁴⁶ *Friends of the Ompompanoosuc v. FERC*, 968 F.2d 1549, 1556 (2d Cir. 1992) (citations omitted).

⁴⁷ *Ocean Advocates v. U.S. Army Corps of Eng’rs*, 402 F.3d 846, 865 (9th Cir. 2005).

⁴⁸ *See, e.g., Lower Alloways Creek Tp. v. Public Service Elec. & Gas Co.*, 687 F.2d 732 (3d Cir. 1982); *Advocates for Transportation Alternatives, Inc. v. U.S. Army Corps of Eng’rs*, 453 F. Supp. 2d 289 (D. Mass. 2006); *Friends of Back Bay v. U.S. Army Corps of Eng’rs*, 681 F.3d 581 (4th Cir. 2012).

39. NEPA also requires analysis of cumulative impacts. NEPA regulations define a “cumulative impact” as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.” 40 C.F.R. § 1508.7. An action is significant, and thus requires an EIS “if it is reasonable to anticipate a cumulatively significant impact on the environment.” 40 C.F.R. § 1508.27(b)(7). Agencies must consider all foreseeable direct, indirect, and cumulative impacts before applying an established categorical exclusion.⁴⁹

40. The CEQ regulations also allow a federal agency to adopt criteria for classes of action “[w]hich normally do not require either an [EIS] or an [EA],” known as categorical exclusions. 40 C.F.R. § 1507.3(b)(2)(ii). The CEQ regulations define categorical exclusions as “a category of actions which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by a Federal agency in implementation of these regulations (§ 1507.3) and for which, therefore, neither an [EA] nor an [EIS] is required.” 40 C.F.R. § 1508.4. The CEQ regulations require that in listing categorical exclusions a federal agency must “provide for extraordinary circumstances in which a normally excluded action may have a significant environmental effect.” *Id.*

41. To facilitate this environmental review, NRC regulations place specific burdens on applicants for license amendments and regulatory exemption requests.⁵⁰ For instance, under 10 C.F.R. § 51.53(d), every applicant for a

⁴⁹ See *Brady Campaign to Prevent Gun Violence v. Salazar*, 612 F. Supp. 2d 1, 23 (D.D.C. 2009); see also, e.g., *In re Northern States Pwr. Co.* (Prairie Island Nuclear Island Nuclear Generating Plant), 76 N.R.C. 503, 514 (2012) (Licensing Board agreed that cumulative impacts analysis of initial storage facility must take into account later application to expand storage facility, because it is “reasonably foreseeable” that the facility will be expanded).

⁵⁰ The NRC may not have the resources to independently analyze these potential impacts. According to a 2015 report from the Office of the Inspector General, the NRC has, at times, had

license amendment approving a license termination plan or decommissioning plan under § 50.82 of this chapter either for unrestricted use or based on continuing use restrictions applicable to the site ... shall submit with its application a separate document, entitle “Supplement to Applicant’s Environmental Report—Post Operating License Stage,” which will update “Applicant’s Environmental Report—Operating License Stage,” as appropriate, to reflect any new information or significant environmental change associated with the applicant’s proposed decommissioning activities or with the applicant’s proposed activities with respect to the planned storage of spent fuel.

10 C.F.R. § 51.53(d).

42. NEPA requires environmental review before the NRC acts on matters that have potential direct or indirect impacts on the environment. NEPA’s obligations are also imposed—first on Holtec and then on the NRC—by NRC regulations, including 10 C.F.R. §§ 51.20, 51.53(d), 51.70, 51.101, and 51.103. Neither the NRC nor the Applicants have complied with NEPA or applicable NRC regulations because, to date, they have not completed any environmental analysis of any of the proposed actions and their potential direct and indirect environmental consequences.

2. License Transfer and Amendment Request

43. The Applicants’ claim that the request to transfer Pilgrim’s Operating License to Holtec “is exempt from environmental review because it falls within the categorical exclusion contained in 10 CFR 51.22(c)(21).” LTA, Encl. 1, at 20. “Except in special circumstances,” 10 C.F.R. § 51.22(b), the Commission’s regulations categorically exclude from NEPA further

only “one” employee available “to conduct regulatory analysis cost estimates” in the division overseeing decommissioning. NRC Office of the Inspector General, *Audit of NRC’s Regulatory Analysis Process*, OIG-15-A-15, at 8 (June 24, 2015) (ADAMS Accession No. ML15175A344), <https://www.nrc.gov/docs/ML1517/ML15175A344.pdf>. In addition, the NRC “has no formal comprehensive cost estimator training/qualification program, (2) it does not implement or practice established knowledge management techniques, and (3) cost benefit guidance documents are outdated.” *Id.*

review “[a]pprovals of direct or indirect transfers of any license issued by NRC and any associated amendments of license required to reflect the approval of a direct or indirect transfer of an NRC license,” *id.* at § 51.22(c)(21). Regarding license amendments, the regulation’s text makes clear that this categorical exclusion contemplates only those amendments “*required to reflect the approval of a direct or indirect transfer of an NRC license.*” *Id.* (emphasis added); Streamlined Hearing Process for NRC Approval of License Transfers, 63 Fed. Reg. 66,721, 66,728 (Dec. 3, 1998). In this case, however, the Applicants propose without even the slightest acknowledgement or justification in the application itself to delete the License’s current \$50 million allowance guarantee to cover payments for, among other things, decommissioning—an amendment that, unlike substituting Holtec for Entergy where Entergy’s name appears in the License, is undisputedly not *required* to reflect the requested approval. For that reason, the license transfer categorical exclusion by its own terms is inapplicable here and, therefore, the Commission cannot rely on it to satisfy its NEPA obligations.

44. Even if the license transfer categorical exclusion did apply, special circumstances exist that preclude NRC from relying on it in this case to comply with NEPA. *See* 10 C.F.R. § 51.22(b). The Commission purposefully chose not to define the term “special circumstances” in the regulations, *In re Pa’ina Hawaii, LLC*, 63 N.R.C. 99, 110 (Jan. 24, 2016), and it made that choice, as the ALSB has previously found, to preserve “flexibility” in determining when special circumstances exist that preclude reliance on a categorical exclusion based on the particular facts of each case. *Id.* at 110 (quoting 49 Fed. Reg. 9,352, 8,377 (Mar. 12, 1984)); *cf.* 40 C.F.R. § 1508.4 (agencies must “provide for extraordinary circumstances in which a normally excluded action may have a significant environmental effect.”). Indeed, here, as in *In re Pa’ina Hawaii, LLC*, the regulatory history for the license transfer categorical exclusion does not “even hint that

the Commission considered” the possibility of approving substantive license amendments like the one the Applicants have requested here—the elimination of a \$50 million contingency allowance to cover unanticipated decommissioning costs. 63 N.R.C. at 110. Instead, the regulatory history indicates that the NRC contemplated coverage only for “*administrative* amendments to licenses.” 63 Fed. Reg. at 66,728 (emphasis added). That fact, coupled with the fact that the Applicants’ have failed, as explained in detail above, to demonstrate that Holtec’s exclusive source of funding (Pilgrim’s Decommissioning Trust Fund) will provide adequate financial assurance constitute the type of “special circumstances” that require completion of at least an environmental assessment.

3. Decommissioning Trust Fund Exemption Request

45. Holtec claims that there will be no potential direct or indirect environmental consequences associated with an NRC decision to grant its request for an *unconditional* exemption from 10 C.F.R. § 50.82(a)(8)(i)(A) so that it may use money from Pilgrim’s Decommissioning Trust Fund for spent fuel management and site restoration costs. LTA, Encl. 2, at E-7 to E-9. The exemption request is unconditional because, to the surprise of at least one NRC official at the January 15, 2019 public meeting,⁵¹ the NRC’s regulations do not require Holtec to pay any money it recovers from DOE for spent fuel management costs back into the Trust Fund or into a separate account dedicated to covering costs at the site until DOE removes the spent fuel and the ISFSI license is terminated, and Holtec has not voluntarily agreed to do so to date. In support of its claim, Holtec states, among other things, that the potential environmental impacts would be the same with or without the requested exemption, that granting

⁵¹ Transcript of January 15, 2019 Public Meeting at 108, lines 3-13 (Adams Accession No. ML19029A025).

the exemption would not “increase the probability or consequences of radiological accidents,” and that the requested exemption “only involves a change in the source of funds allowed for managing spent fuel or restoring the site.” LTA, Encl. 2, at E-8 to E-9. But those assertions are demonstrably false.

46. First, if allowed, Holtec’s request for an unconditional exemption will drain the Decommissioning Trust Fund of all but \$3.615 million by the year 2063 and leave Holtec with no guaranteed or committed source of funds to cover spent fuel management costs after that year (the annual costs of which are at least twice what it will have left in the fund in 2063 even without accounting for the other possible contingencies discussed above). Without a committed source of funds to pay for the “very possible outcome” of the indefinite storage of spent fuel onsite, *In re Entergy Nuclear Vermont Yankee, LLC*, LBD-15-24, at 12, Holtec simply cannot plausibly claim that, for example, granting an unconditional exemption will not “increase the probability or consequences of radiological accidents” from the 61 dry casks that it will be responsible for securing onsite if it has no committed funds to pay for those costs. Nor, for that matter, can Holtec plausibly claim that that the requested exemption “involves a [mere] change in the source of funds allowed for managing spent fuel or restoring the site.” Holtec has identified only *one* source of funds—the Decommissioning Trust Fund—and, as explained above, Holtec fails to demonstrate that the existing fund is sufficient to cover all of the costs associated with decommissioning, site restoration, and spent fuel management.

47. Second, if allowed, the exemption request could also lead to yet-to-be analyzed potential non-radiological environmental consequences. *See* LTA, Encl. 2, at E-8. As the Commonwealth has explained, it is likely that large quantities of non-radiological hazardous materials have been released at the site, Locke Decl. ¶ 6; Howland Decl. ¶ 7, and Holtec will

thus also have to comply with the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, Mass. Gen. L. c. 21E, §§ 1-22 (Chapter 21E), and its regulations, the MCP, 310 C.M.R. §§ 40.0000 *et seq.*, among other state and federal non-radiological laws, to assess and remediate those releases, Locke Decl. ¶¶ 2-3. While Holtec's PSDAR acknowledges that it needs to address "state environmental response and remediation requirements . . . in a timely manner," Revised PSDAR, at 22, Holtec has yet to complete the type of site assessment that would allow it to understand both the extent of the non-radiological contamination at the site and the associated costs to remediate that contamination and, thus, has not properly accounted for these contingencies in its Site-Specific Cost Estimate. Locke Decl. ¶¶ 7-9; Howland Decl. ¶ 7. Pilgrim is located adjacent to and over several important natural resources (Cape Cod Bay, wetlands, and a Potentially Productive Aquifer). Locke Decl. ¶ 6. The exemption request, however, would permit Holtec to divert approximately \$500 million from the Trust Fund, leaving it with little or no money to address non-radiological contamination impacting these resources and causing detriment to public health, and Holtec has failed to address in its exemption request the environmental consequences caused by this contingency.

4. Holtec's Revised PSDAR and Site-Specific Cost Estimate

48. The Commission's regulations at 10 C.F.R. § 50.82(a)(4)(i) required Holtec to include in its PSDAR 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." *Id.* This requirement is included because, as courts have made clear, "[r]egardless of the label the [Nuclear Regulatory] Commission places on its decision," the act of "permitting [a licensee] to decommission the facility" requires NEPA review, "[a]n agency cannot skirt NEPA or other statutory commands by

essentially exempting a licensee from regulatory compliance, and then simply labelling its decision ‘mere oversight’ rather than a major federal action. To do so is manifestly arbitrary and capricious.”⁵² When a federal agency has a “mandatory obligation to review” plans, as is the case here, the agency’s “failure to disapprove” of those plans constitutes a “major federal action” that triggers NEPA review.⁵³

49. In this case, the proposed federal action is, as Holtec has conceded, the totality of the activities associated with “decommissioning, spent fuel management and site restoration.” *See* LTA, Encl. 1, at 16-17; *see* Revised PSDAR, at 5. The proposed license transfer and amendment expressly state that they are intended to facilitate a more rapid decommissioning of Pilgrim and are accompanied by a Revised PSDAR that is contingent upon the proposed license transfer and amendment. The NRC’s approval of this combined proposal thus constitutes a “major federal action.”⁵⁴

50. The NRC must conduct a comprehensive analysis to avoid unlawfully segmenting its analysis into discrete parts without ever looking at their full combined effects, an approach that NEPA prohibits.⁵⁵ Separate NRC environmental reviews of the proposed license transfer and

⁵² *Citizens Awareness Network, Inc. v. Nuclear Regulatory Comm’n*, 59 F.3d 284, 293 (1st Cir. 1995).

⁵³ *Ramsey v. Kantor*, 96 F.3d 434, 445 (9th Cir. 1996).

⁵⁴ 40 C.F.R. § 1508.18 (defining “major federal action” as “actions with effects that may be major and which are potentially subject to Federal control and responsibility,” including “[a]pproval of specific projects” or other instances where regulatory approval is necessary to a licensee’s actions).

⁵⁵ *See, e.g., Del. Riverkeeper Network v. FERC*, 753 F.3d 1304, 1314 (D.C. Cir. 2014) (“The justification for the rule against segmentation is obvious: it prevents agencies from dividing one project into multiple individual actions each of which individually has an insignificant environmental impact, but which collectively have a substantial impact.” (quotation and alteration marks omitted)); *see also, e.g., NRDC v. Callaway*, 524 F.2d 79, 88 (2d Cir. 1975) (NEPA is meant to provide “a more comprehensive approach so that *long term and cumulative effects of small and unrelated decisions could be recognized*, evaluated and either avoided,

amendment, exemption request, and the Revised PSDAR would improperly segment the environmental analysis, and fail to address cumulative impacts. All of Holtec's proposed uses of the Decommissioning Fund are "reasonably foreseeable" and thus must be considered together.⁵⁶

51. Contrary to Holtec's claim in the PSDAR, *see* Revised PSDAR, at 20, the potential environmental impacts of the proposed license transfer and amendment request, the exemption request, and the associated Revised PSDAR, are not all bounded by any previous EISs and there exists new and significant information that requires preparation of a site-specific supplemental EIS. *See Marsh v. Oregon Nat. Resources Council*, 490 U.S. 360, 374 (1989). The completion of an EIS for a proposed action does not end an agency's responsibility to weigh the environmental impacts of a proposed action. *Id.* at 371-72. As the Supreme Court recognized, it would be incongruous with NEPA's "action-forcing" purpose to allow an agency to put on "blinders to adverse environmental effects," just because the EIS has been completed. *Id.* Accordingly, up until the point when the agency is ready to take the proposed action, it must supplement the EIS if there is new information showing that the remaining federal action will affect the quality of the human environment "in a significant manner or to a significant extent not already considered." *Id.* at 374.

52. Holtec's Revised PSDAR environmental analysis fails to comply with 10 C.F.R. § 50.82(a)(4)(i) because it fails to address new and significant information regarding the reasonably foreseeable potential that the increasingly adverse effects of climate change will impact site decommissioning, site restoration, and spent fuel management activities. While Holtec rests on the fact that the NRC staff did not identify during the 2007 license renewal

mitigated, or accepted as the price to be paid for the major federal action under consideration" (emphasis added & citations omitted)).

⁵⁶ *Blue Mountains*, 161 F.3d at 1215.

environmental review “any new and significant information,” Revised PSDAR, at 36, recently released data and information reveal that the impacts of climate change have grown significantly since 2007 and are likely to increase in both intensity and frequency in the near term. In particular, the U.S. Global Change Research Program’s November 23, 2018 4th National Climate Assessment, which was prepared by over 300 federal and non-federal experts and peer reviewed by the National Academies of Sciences, Engineering, and Medicine, found that sea levels are rising in the Northeast at rates “three to four times higher than the global average rate.”⁵⁷ At the same time, impacts associated with rising sea levels are being exacerbated by an increase in the intensity and frequency of extreme weather events, like the January and March 2018 storms that caused substantial coastal flooding and resulted in the highest recorded high tides since tide level data began being collected in 1921.

53. Located on the shore of Cape Cod Bay, Pilgrim is at the forefront of rising sea levels, extreme snow storms, and powerful hurricanes. The increased intensity of these climate change-related events, coupled with Pilgrim’s unique close-proximity to the coast, places such potential environmental risks outside the scope of the 2002 GEIS and the 2007 Site-Specific SEIS. Rising sea levels, increased intensity and frequency of major storms, and the attendant storm surges, pose unique, previously unanalyzed potential environmental consequences for Holtec’s proposed decommissioning, site restoration, and spent fuel management activities. For example, the increased frequency of storm surges and their height could exacerbate existing non-radiological contamination on-site if not properly managed by causing the further dispersal of contaminants

⁵⁷ U.S. Global Change Research Program, *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment* 689 (Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart eds., U.S. GPO) (2018), https://nca2018.globalchange.gov/downloads/NCA4_2018_FullReport.pdf

into previously uncontaminated areas and increasing the likelihood through runoff of contaminant releases to Cape Cod Bay. These same events could cause significant, unaccounted for costs due to significant work delays and increased work necessitated by the need to manage on-site contamination during and after storm events.

54. Holtec's Revised PSDAR environmental analysis also fails to comply with 10 C.F.R. § 50.82(a)(4)(i) because it fails to address new and significant information regarding the reasonably foreseeable potential impacts of climate change and its significance to the potential for spent fuel pool fires or dry cask rupture. The generic environmental impact statement (GEIS) was published in 2002 and, in assessing offsite related accidents, only considered seismic events, aircraft crashes, tornados with high winds, and fuel related accidents, such as fuel drops and loss of water in spent nuclear fuel pools.⁵⁸ However, since 2002, Massachusetts, and the country as a whole, has experienced extreme, record-breaking weather-related effects of climate change. While NUREG-1437, Revision 1, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, June 2013, does acknowledge the significant impacts of climate change, it does not consider those impacts in the specific context of decommissioning and site restoration.

55. Holtec's Revised PSDAR environmental analysis also fails to comply with 10 C.F.R. § 50.82(a)(4)(i) because it fails to address new and significant information regarding the reasonably foreseeable potential impacts of the consequences of a mishap during the transfer of fuel to the spent fuel pool for cooling, transfer of spent fuel from the pool to dry casks, and the transfer of the dry casks to the ISFSI. Holtec, however, recently experienced a mishap at San Onofre during the transfer of dry casks to the dry cask storage area, *see infra* at 20-22. While a

⁵⁸ NUREG-0586, Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities: Supplement 1, Regarding the Decommissioning of Nuclear Power Reactors (2002), available at: <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0586/>.

catastrophic radiological event did not occur, it demonstrates that decommissioning accidents are certainly possible. If a decommissioning accident does occur at Pilgrim, a radiological event could result. For example, a 2013 NRC study found that a severe spent fuel pool accident could render an area *larger than the Commonwealth* uninhabitable for decades, displacing millions of people.⁵⁹ A 2006 Massachusetts study found that a major spent fuel pool fire at Pilgrim or Vermont Yankee Nuclear Power Station could cause \$488 billion in damage and render hundreds of miles uninhabitable.⁶⁰ While dry casks are more stable than spent nuclear fuel pools, a hole with an equivalent diameter of 2.3 millimeters could release radioactive gases and particles, resulting in an inhalation dose of 6.3 millirem to an individual 900 meters downwind.⁶¹ Thus, the possible likelihood of a repeat decommissioning accident by Holtec, coupled with the likelihood of a resulting radiological event, places the proposed license transfer and amendment, and Revised PSDAR outside the scope of the GEIS and requires, at minimum, completion of an environmental assessment.

⁵⁹ *Consequence Study of a Beyond Design-Basis Earthquake Affecting the Spent Fuel Pool for A U.S. Mark I Boiling Water Reactor*, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission 232 (Tbl. 62) & 162 (Tbl. 33) (October 2013) (ADAMS Accession No. ML13256A342).

⁶⁰ The Massachusetts Attorney General's Request for a Hearing and Petition for Leave to Intervene With respect to Entergy Nuclear Operations Inc.'s Application for Renewal of the Pilgrim Nuclear Power Plants Operating License and Petition for Backfit Order Requiring New Design features to Protect Against Spent Fuel Pool Accidents, Docket No. 50-293, May 26, 2006 includes a Report to The Massachusetts Attorney General On The Potential Consequences Of A Spent Fuel Pool Fire At The Pilgrim Or Vermont Yankee Nuclear Plant, Jan Beyea, PhD., May 25, 2006 (NRC RC Electronic Hearing Docket, Pilgrim 50-293-LR), 2—6 pleadings, MAAGO 05/26 (ML061640065) & Beyea (ML061640329).

⁶¹ Dr. Gordon R. Thompson *Environmental Impacts of storing Spent Nuclear Fuel and High-Level Waste from Commercial Nuclear Reactors: A Critique of NRC's Waste Confidence Decision and Environmental Impact Determination* (Cambridge, Massachusetts: Institute for Resource and Security Studies, February 2009).

56. Holtec's PSDAR environmental analysis also does not comply with 10 C.F.R. § 50.82(a)(4)(i) because it fails to address new and significant information regarding the reasonably foreseeable potential impacts of the consequences of the very real possibility of a shortfall in the Trust Fund before the site is radiologically decontaminated and restored. If that occurs, it would place public health, safety, and the environment at risk, and would likely have significant health, safety, environmental, and economic effects, none of which have been analyzed by the NRC. And the possibility of a shortfall in the Pilgrim Decommissioning Fund is likely, considering the potential unknown scenarios listed above and supported by the attached affidavits. NEPA requires an analysis of environmental impacts in the event of a shortfall in the Decommissioning Fund.

57. The NRC has not complied with NEPA or applicable NRC regulations because, to date, it has not done any environmental analysis of the proposed transfer and license amendment. The NRC has not analyzed the potential environmental impacts of the reasonably foreseeable possibility of a shortfall in the Decommissioning Fund. The NRC has not considered cumulative impacts resulting from the non-decommissioning expenses that Applicants propose to withdraw from the Decommissioning Fund. Nor has the NRC evaluated reasonable alternatives, such as imposing license conditions requiring additional financial assurance. At a minimum, if the NRC is going to allow the Applicants to engage in activities with environmental impacts without it first issuing a detailed environmental impact statement, the NRC must undertake an environmental analysis. 40 C.F.R. § 1501.4; *id.* § 1508.14.

58. NEPA requires an environmental impact statement, with a full list and analysis of alternatives, before the NRC can approve the proposed license transfer and amendment and the significant shift in decommissioning methods that Holtec proposes in the Revised PSDAR. An

environmental impact statement will “insure[] the integrity of the agency process by forcing it to face those stubborn, difficult-to-answer objections without ignoring them or sweeping them under the rug” and will enable “ the public [to] weigh [the] project’s benefits against its environmental costs.”⁶² NEPA’s procedures serve a “vital purpose” that “can be achieved only if the prescribed procedures are faithfully followed.”⁶³

CONCLUSION

The Commonwealth and its citizens have a direct and ongoing interest in all aspects of the decommissioning, spent fuel management, and site restoration of Pilgrim. While operations will cease on June 1, 2019, the Commonwealth will continue to be burdened by the legacy of the plant and spent nuclear fuel stored onsite for many decades, perhaps even centuries, to come. Until the spent nuclear fuel is removed, full site restoration will not occur. And unforeseen site complications can lead to cost overruns and long-term, yet unknown health, safety and environmental effects if not properly managed. As the host of this nuclear power plant, the Commonwealth and its citizens have ongoing financial health, safety, and environmental concerns.

Both of the Commonwealth’s contentions meet the requirements of 10 C.F.R. § 2.309(f) and are therefore admissible. Each contention identifies specific regulatory requirements for which Applicants have failed to present sufficient evidence of compliance. The Commonwealth has briefly explained the basis, with supporting facts and proposed expert opinions, for each contention. The Commonwealth has further demonstrated that these matters are within the scope

⁶² *Hoffman*, 132 F.3d at 12 (citing *Sierra Club v. United States Army Corps of Eng’rs*, 772 F.2d 1043, 1049 (2d Cir. 1985)).

⁶³ *Lathan v. Brinegar*, 506 F.2d 677, 693 (9th Cir. 1974).

of the proceeding and material to the findings the NRC must make to support the proposed license transfer and amendment.

For these reasons, the Board should grant this petition to intervene and the Commonwealth's associated hearing request.

Respectfully submitted,

COMMONWEALTH OF MASSACHUSETTS

By their attorneys,

MAURA HEALEY
ATTORNEY GENERAL

Signed (electronically) by

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Dated: February 20, 2019

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE SECRETARY

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC.,)
ENTERGY NUCLEAR GENERATION)
COMPANY, AND HOLTEC)
DECOMMISSIONING INTERNATIONAL,)
LLC; CONSIDERATION OF APPROVAL OF)
TRANSFER OF LICENSE AND)
CONFORMING AMENDMENT)

Docket Nos. 50-293 & 72-1044

(Pilgrim Nuclear Power Station)

CERTIFICATION OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I certify that copies of the Commonwealth of Massachusetts's Petition for Leave to Intervene and Hearing Request and the Five attached Declarations have been served upon the Electronic Information Exchange, the NRC's e-filing system, in the above-captioned proceeding this 20th day of February 2019.

Signed (electronically) by _____
Joseph Dorfler
Assistant Attorney General
Energy & Telecommunications Division
One Ashburton Place, 18th Floor
Boston, Massachusetts 02108
617-963-2086
Joseph.Dorfler@mass.gov

Dated: February 20, 2019

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Docket Nos. 50-293 & 72-1044

(Pilgrim Nuclear Power Station)

DECLARATION OF WARREN K. BREWER

I, Warren K. Brewer, declare and state as follows:

1. I am an Executive Consultant for Four Points Group, Incorporated, an engineering consulting firm providing services related to the nuclear industry, including decommissioning cost estimating and planning, and cost analysis with respect to spent fuel management and disposition. I have over 40 years of experience in the nuclear industry and have been involved in decommissioning cost estimating and planning since 1989. I submit this declaration in support of the Commonwealth of Massachusetts' petition for leave to intervene and hearing request in this matter.

2. I have a B.S. in electrical engineering from Louisiana Tech University and an M.S. in nuclear engineering from the Massachusetts Institute of Technology. I completed a graduate-level course of study in areas related to nuclear power and power plant design at the Bettis Reactor Engineering School. After obtaining my Master's degree, I worked for 10 years at the Division of Naval Reactors, the joint United States Department of Defense and Department of

Energy organization responsible for all aspects of design, construction, maintenance, and operation of nuclear reactors in U.S. Navy ships and training facilities. I left the Division of Naval Reactors in 1986 and accepted a position with Pickard, Lowe and Garrick, a nuclear industry engineering consulting company. In late 1986, two colleagues and I formed ABZ. I now work with both ABZ, Inc. and Four Points Group. I have previously provided expert witness testimony related to engineering and the nuclear industry before state regulatory bodies, the United States Tax Court, the United States Court of Federal Claims (numerous cases), and in an international arbitration proceeding. Additional information about my background and experience is included in my curriculum vitae, which I have attached to this declaration.

3. I have reviewed filings related to the transfer of the Pilgrim Nuclear Power Station (PNPS) from Entergy to Holtec, including the application to transfer, among other things, PNPS's Renewed Facility Operating License to Holtec and the Revised Post-Shutdown Decommissioning Activities Report (PSDAR) and Preliminary Decommissioning Cost Estimate (DCE) submitted by Holtec to the Nuclear Regulatory Commission (NRC) on November 16, 2018.¹

4. My testimony below is based on my experience in this field, and on information that is currently publicly available.

5. Based on publicly available information, the transfer of PNPS to Holtec and Holtec's request for an exemption to use PNPS's decommissioning trust fund for site restoration and spent fuel management costs, if approved, could lead to a shortfall in the amount of funding available to fully and safely decommission and radiologically decontaminate PNPS, restore the site, and

¹ Throughout this affidavit, I use the term Entergy to identify any of the Entergy entities, including Entergy, Entergy Nuclear Operations, Inc., and Entergy Nuclear Generating Company. Similarly, I use the term Holtec to refer to any of the Holtec entities, including Holtec, Holtec Decommissioning International, LLC (HDI), Holtec Pilgrim, and NamCo.

manage PNPS's spent nuclear fuel onsite. Any such shortfall could place public health, safety, and the environment at risk. Such a shortfall would also contradict Entergy's position that Holtec is financially qualified to hold the PNPS license because the decommissioning trust fund is sufficient to pay for license termination, site restoration, and spent fuel management costs. Holtec's Site-Specific Cost Estimate does not allow for virtually any cost-overrun since it projects that only \$3.615 million will remain in the fund by the year 2063. There has been no showing that the Holtec subsidiary that will be the PNPS licensee if the requested license transfer is allowed has the financial capability to handle any shortfall in decommissioning, site restoration, or spent fuel management funding. Without limitation to other statements I could attest to and affirm, I specifically attest to and affirm the following as support for this statement:

6. The amount of publicly available information is limited. This, in itself, raises a significant concern that, if approved, the transfer of PNPS to Holtec could lead to a shortfall in the funding available to fully and safely decommission and radiologically decontaminate PNPS, restore the site, and manage its spent nuclear fuel. Absent funding from some other unidentified source, this could leave PNPS in a state that puts public health, safety, and the environment at risk.

7. As explained in detail below, there are at least seven (7) ways Holtec could experience significant, unaccounted for, cost overruns that could lead to a shortfall in funding and place public health, safety, and the environment at risk:

(a) Delays in the work schedule leading to increased costs for overhead and project management;

(b) Unidentified State requirements or unanticipated site conditions could require greater expenditures for site restoration work, thus decreasing the amount of funds

available for the completion of license termination work. This is true because the Holtec plan includes spending funds on site restoration activities prior to the completion of license termination activities. Further, the Holtec plan results in a balance of less than \$4 million at the end of decommissioning even without unanticipated work scope changes or discovery that compliance with Massachusetts regulatory requirements result in needed actions beyond those assumed by Holtec in its cost estimate;

(c) The discovery of previously unknown radiological or non-radiological contamination;

(d) A radiological incident at the site (for instance, during the transfer of spent nuclear fuel into dry casks);

(e) Absent a change to the Standard Contract, Holtec will have to repackage spent nuclear fuel into new, DOE approved containers prior to transportation to an off-site storage facility or repository;

(f) A successful effort by DOE to recover all or some of the costs for the packaging of spent nuclear fuel into dry casks if DOE removes the spent fuel without prior-repackaging; or

(g) Holtec's obligation to maintain spent nuclear fuel onsite and to repackage the spent fuel one or more times as well as perform other NRC required maintenance activities if DOE fails to remove all spent nuclear fuel by 2062, as Holtec assumes in its Cost Estimate.

8. *Delays in the work schedule leading to increased costs for overhead and project management.* The Holtec cost estimate includes a 17% contingency allowance. As a general practice, decommissioning cost estimates, including the Entergy estimate for PNPS, include

contingency only for the types of routine events that are expected to happen in any project but cannot be attributed in advance to those events such as equipment failures or weather. As such, the contingency in the Entergy cost estimate is not intended to account for changes in scope from discrete events or project uncertainties in scope or regulations. Entergy defines these other risks under the broad label of financial risk and no allowance is included in the Entergy estimate for such risks. By way of contrast, the 17% contingency allowance included in the Holtec cost estimate is described as accounting for the traditional contingency as well as increased costs for discrete events and project uncertainties including changes in scope. Although the contingency included in the Holtec estimate is claimed to account for uncertainties and risks beyond the contingency allowance in the Entergy estimate, the total license termination costs for both estimates are essentially equal when the costs for SAFSTOR in the Entergy estimate are excluded.

9. The presently available information in Holtec's analysis does not quantify the amount included in the Holtec estimate to account for the types of risk not addressed in the Entergy estimate. Additionally, the presently available information in Holtec's analysis does not provide any basis or explanation for how the estimated cost does not increase from that of Entergy when allowance for other types of risk are included in the Holtec estimate. Further, the presently available information in Holtec's analysis does not provide detail on how the risk analysis was performed or how the confidence level was calculated. For example, unlike Entergy's PSDAR, Holtec's revised PSDAR does not describe how the 17% contingency allowance was applied in the cost estimate (e.g., whether it was applied to some or all of the line items or to the total cost estimate) or why the same 17% allowance was deemed reasonable across all activities to which it was applied (assuming it was applied to specific line-items, something again that cannot be

ascertained from Holtec's analysis). As such, the reasonableness of Holtec's analysis cannot be assessed. The analysis purported to have been performed by Holtec to arrive at the contingency amount would need to include costs for indirect work delays and added overhead costs. That is, if a specific activity takes longer than anticipated, then, even without any added direct costs for that activity, the overall decommissioning schedule would likely be delayed. Such delay would lead to increased, currently unaccounted for, costs for overhead and project staffing and management. These costs could be significant. For instance, at the Humboldt Bay facility, a 2006 TLG Report estimated the staff costs for that project at \$107.6 million in 2010 dollars. After the start of the project, the estimate for expected staff costs was increased to \$168 million in 2010 dollars. A post-project-start cost increase of even half of this amount at PNPS would increase Holtec's costs well beyond the \$3.615 million its site-specific cost estimate indicates will remain in the trust fund when Holtec estimates PNPS's operating and Independent Spent Fuel Storage Installation (ISFSI) licenses will be terminated and the site released. Finally, the presently available information in Holtec's analysis does not explain the basis for Holtec's decision to use an 85% confidence level or the cost-impact of basing the estimate on a higher confidence level.

10. *State-law requirements for site restoration decreasing the amount of funds available to pay for radiological decontamination.* Holtec's plan for decommissioning includes expenditures of funds for site restoration prior to the completion of license termination and thus, site restoration activities will be performed somewhat in parallel with radiological decontamination. Massachusetts site restoration requirements resulting in higher than estimated costs, could result in a shortfall of funds for radiological decontamination. Further, state-law requirements for site restoration may impact the duration or scheduling of license termination

activities given that site restoration activities are planned to be performed prior to completion of radiological decontamination. As a result, there could be increased costs for overhead and staffing. These increased costs could be in excess of the unspecified allowance Holtec states was included to satisfy an 85% confidence level. Holtec's site-specific cost estimate does not quantitatively identify any allowance to account for these costs or how it would cover cost increases consistent with risks outside the 85% confidence level.

11. *The discovery of previously unknown radiological or non-radiological contamination.* According to Holtec's PSDAR, Holtec plans to perform site characterization activities during decommissioning to identify, categorize, and quantify radiological and non-radiological contamination. Since such physical characterization has not yet been performed, including an assessment of the horizontal and vertical extent of all radiological and non-radiological contamination, the estimated cost for decommissioning and restoring PNPS is based on assumptions informed only by historical information. The actual levels and extent of contamination could be greater than assumed. Holtec appears to understand this uncertainty, as the PSDAR states that Holtec's characterization efforts will continue during decommissioning to ensure that decommissioning activities are adjusted as needed. If unknown radiological or non-radiological contamination is discovered, it could significantly increase the cost of decommissioning, including staffing, overhead, and waste disposal. These increased costs could be in excess of unspecified allowance Holtec states was included to satisfy an 85% confidence level. Holtec's site-specific cost estimate does not quantitatively identify specific allowances to account for these costs or how it will cover cost increases consistent with risks outside the 85% confidence level.

12. *A radiological incident at the site (for instance, during the transfer of spent nuclear fuel into dry casks).* Although the likelihood of a radiological incident decreases once fuel is removed from the reactor, there is still a risk of such an incident even at a decommissioning nuclear power plant. For instance, there is a risk of an incident during the transfer of spent fuel to the spent fuel pool and then from the spent fuel pool to dry casks. If such an incident were to occur, it would increase the costs of decommissioning and depending on the extent of such an incident it could greatly increase the costs of decommissioning. The effect on cost would be both direct and indirect by causing substantial delay in the decommissioning efforts. Although there was no radiological consequence, in August 2018 there was an incident at the Southern California Edison (SCE) San Onofre facility during the transfer of spent fuel to dry storage, which was being managed by Holtec. This incident involved a situation where a loaded spent fuel canister was nearly dropped. SCE has spent considerable time and resources evaluating this incident and taking actions to ensure that the transfer of spent fuel to dry storage can be completed safely. The San Onofre incident has yet to be fully resolved such that transfer of fuel to dry storage may be resumed. In addition, during such a similar delay, there will be delay costs for the fuel transfer personnel as well as added overhead and project management costs. It is not clear from presently available information if Holtec accounts for these risks or the costs associated with a substantial incident.

13. *Absent a change to the Standard Contract, Holtec will have to repackage spent nuclear fuel into new, DOE approved containers prior to transportation to an off-site storage facility or repository.* Holtec's cost estimate assumes that DOE will accept the canisters in the planned 61 dry casks at PNPS as packaged for dry storage, and not require repackaging for transportation. Entergy (and many other licensees) have argued in testimony and briefs before

the U.S. Court of Claims and the U.S. Court of Appeals for the Federal Circuit that DOE has the authority to mandate licensees to repackage spent fuel into DOE-approved transportation casks.² If Entergy is correct and DOE were to mandate fuel repackaging, this could cause Holtec to incur significant unaccounted-for expenses. The cost overrun for repackaging would be exacerbated by the fact that this would occur after the PNPS spent fuel pool had been dismantled. Without a spent fuel pool onsite, repackaging spent fuel might involve first transporting the fuel to another plant site, or building an onsite Dry Transfer Station (none of which currently exist in the United States). This could lead to cost overruns on the order of hundreds of millions of dollars as indicated by the Government Accountability Office estimate of \$150 to \$450 million for construction of a fuel transfer station.³ There is no indication in Holtec's currently available documentation that indicates that Holtec's site-specific cost estimate accounts for these potential costs.

14. *A successful effort by DOE to recover all or some of its past payments for the packaging of spent nuclear fuel into dry casks if DOE removes the spent fuel without prior-repackaging.* Even if DOE accepts the spent nuclear fuel for transportation without repackaging, DOE may then pursue recovery from Holtec for some or all past payments that DOE made for the original packaging of PNPS dry casks. Entergy has recovered those costs to date on the theory that DOE has as of yet been unwilling to agree to acceptance of the fuel without repackaging. If DOE pursues such recovery and is successful, this could lead to significant unaccounted for costs. To date, Entergy has recovered about \$6 million dollars for complete

² E.g., *System Fuels, Inc. v. United States*, 818 F.3d 1302, 1306-07 (Fed. Cir. 2016).

³ U.S. GOVERNMENT ACCOUNTABILITY OFFICE, GAO-10-48, NUCLEAR WASTE MANAGEMENT: KEY ATTRIBUTES, CHALLENGES, AND COSTS FOR THE YUCCA MOUNTAIN REPOSITORY AND TWO POTENTIAL ALTERNATIVES 55 (Nov. 2009), <https://www.gao.gov/assets/300/298028.pdf>.

loading of three casks and initial work on loading of five more casks at PNPS. Entergy or Holtec, if the NRC approves the application, will have to load over 60 casks to accommodate all of the spent fuel at PNPS. It is unclear from Holtec's presently available information if Holtec has included any type of risk allowance to account for such cost overrun or how it otherwise would compensate for the substantial cost increase from such a recovery by DOE.

15. *Holtec's obligation to maintain spent nuclear fuel onsite and to repackage the spent fuel one or more times as well as perform other NRC required maintenance activities if DOE fails to remove all spent nuclear fuel by 2062, as Holtec assumes in its Cost Estimate.* There is no certainty in the Holtec assumption that DOE will have removed all spent nuclear fuel from PNPS by 2062 since DOE has not yet started accepting spent fuel and the latest estimated DOE start date is still more than a decade in the future and DOE's ability to meet that estimated start date depends on preliminary actions that DOE does not control. If DOE fails to pick up all of the spent fuel by the end of 2062 (as Holtec assumes), then Holtec will begin incurring significant and ongoing cost overruns for spent fuel management. Generally speaking, these annual costs would be the approximately \$7 million per year that Holtec identifies for spent fuel management costs in the years 2025 through 2062 assuming those costs are accurate. In my experience, licensees have often underestimated their annual expenditures for spent fuel management. Such costs could go on for many decades if not indefinitely. This raises a significant risk of much greater cost overruns, on the order of hundreds of millions of dollars. The NRC's Continued Storage Rule (NUREG-2157), referenced in Holtec's PSDAR but then essentially ignored, explicitly recognizes that spent fuel may be stored indefinitely at each reactor site. In that indefinite storage scenario, the NRC assumes that each reactor operator will need a Dry Fuel Transfer Station to move spent fuel into new dry casks every 100 years. This is because, at sites

like PNPS, there would no longer be a spent fuel pool to effectuate the repackaging once the fuel is moved to dry storage, and the plant is decommissioned. The Holtec PSDAR and DCE do not presently account for how Holtec would address the very possible contingency of indefinite onsite storage, including all safety and environmental concerns regarding transferring fuel into new dry casks every 100 years. The PSDAR also does not identify any funding source for:

- (a) Construction of a Dry Fuel Transfer Station;
- (b) Purchase of 61 new casks and all the labor and material costs for transferring the fuel every 100 years; and
- (c) Costs of maintaining security at the site indefinitely. These currently unaccounted for costs, could easily run hundreds of millions of dollars.

16. Each of the cost overruns listed above could lead to a significant shortfall in PNPS's decommissioning trust fund. The shortfall could be even greater if more than one of the above cost overruns occurs, or if Holtec encounters other cost overruns not listed above. The only source of funding for decommissioning (radiological decontamination, spent fuel management and site restoration) identified by Holtec is PNPS's nuclear decommissioning trust fund. Because of this and the fact that the three categories of activities will be performed, at least in part, in parallel, a cost overrun or delay in any of these three categories has the potential to jeopardize funding for the other areas.

17. I, Warren K. Brewer, have read the above statement consisting of 11 pages, and I certify under penalty of perjury that the foregoing is true and correct. Executed on February 18, 2019.


WARREN K. BREWER
Executive Consultant
Four Points Group, Inc.

WARREN K. BREWER**EDUCATION**

Bettis Reactor Engineering School, 1976

M.S., Nuclear Engineering, Massachusetts Institute of Technology, 1976

B.S., Electrical Engineering, Louisiana Tech University, 1974

EXPERIENCE

**1986 - Present - ABZ, Incorporated and Four Points Group,
Incorporated starting 2017**

Executive Consultant specializing in nuclear power plant operations, decommissioning cost estimating and planning and severe accident analysis. This experience has included work related to regulatory compliance, inservice inspection and testing (ISI/IST), configuration management, procedure and technical specification reviews and design basis documentation.

More specifically, the experience in these areas has included:

Provided engineering and management services as part of an integrated team to validate and update the Southern California Edison San Onofre nuclear plant design basis documentation.

Managed the development of advanced computer systems for assisting nuclear plant staff in compliance with regulatory requirements. These systems assisted in scheduling of NRC required plant condition dependent surveillance testing, collecting and evaluating test data, managing of system operability information and plant license limiting conditions for operation, compliance with nuclear plant operator scheduling and overtime regulations, and compliance with NRC event reportability regulations. The surveillance test scheduling system was used by one utility for almost 20 years with no failures.

Developed methods for verification and validation of expert system computer codes based on industry guidelines and accepted criteria for conventional codes. Presented lecture to the NRC on methods of verification and validation as part of a lecture series on software quality assurance

Provided expert assistance to the programmers in developing a state-of-the-art desktop nuclear power plant simulator for training operators to learn and understand event-based Emergency Operating Procedures (EOPs).

Over 20 years experience in preparation and review of decommissioning plans and cost estimates. Participated in conferences and workshops on decommissioning costs and funding adequacy. Provided on-site monitoring of decommissioning activities.

Provided assistance concerning decommissioning costs, planning and progress as part of process to negotiate sale of a nuclear plant.

Conducted specific studies relative to projected costs of low-level waste disposal and spent fuel management providing the results to state agencies and companies in the nuclear industry.

Prepared reports for state regulators evaluating cost estimates for decommissioning, low-level waste disposal, and extended spent fuel storage. Provided training to state regulators on decommissioning technology and methodology of decommissioning cost estimating.

Developed methodology for evaluating costs for recovery from severe reactor accidents. This methodology has been used by the majority of the US nuclear industry, foreign utilities and nuclear insurers to advise them on potential losses and insurance recoveries as well as to assist risk managers in determining the coverage levels to obtain.

Performed evaluations of the liability claims that could arise from transportation of nuclear material. These evaluations included assessment of the technical conditions that might result from such events, the probability of such events, and all liability costs that might be incurred (cleanup, property damage, health effect, business interruption or losses, etc.).

Performed reviews of maintenance, operations, and quality assurance programs. Such reviews included comparison of the program elements with the regulations, evaluation of specific work packages and implementation of work in the field.

Provided DOE with expert assistance in evaluating the generic environmental impact statements for the New Production Reactor. This included verification and validation of offsite releases, environmental impacts, and the technical aspects of operation.

Managed and participated in the development of computer program for fluid flow analysis. The program is applicable to a wide range of facilities and industries. The program has been marketed world-wide since 1992 with an estimated 25,000 users.

Extensive experience in providing litigation support and expert witness services related to nuclear plant operation, decommissioning planning and costs, spent fuel management and general engineering. Expert testimony has been provided before the US Court of Federal Claims, US Tax Court, state regulatory agencies and arbitration tribunals.

This litigation support and expert witness experience has included:

Over 12 years experience in evaluation of claims resulting from the US Department of Energy's (DOE) breach of the contract with nuclear plant operators for the disposal of spent nuclear fuel. This has included evaluation of spent fuel storage options, dry storage facilities and cask designs, specific plant decisions, equipment, incurred costs and spent fuel transportation options. Prepared expert witness reports and provided expert testimony.

Provided rate case support in proceedings before state and federal regulators. Issues addressed included the adequacy of decommissioning cost estimates, as well as

prudence of operational actions, management effectiveness, technical soundness of operation, technical design basis and details, and regulatory compliance and adherence to industry standards. Work included testimony, as well as assisting in preparing data and information for testimony by others. Prepared reports for state regulators evaluating cost estimates for decommissioning, low-level waste disposal, and extended spent fuel storage. Provided training to state regulators on decommissioning technology and methodology of decommissioning cost estimating.

1986 - Pickard, Lowe and Garrick, Inc.

Consulting Engineer.

Conducted detailed review of technical specification surveillance test requirements for a nuclear power plant. This included detailed review of the implementing programs and procedures, and providing detailed comments for procedure revisions to ensure regulatory compliance.

Conducted detailed review of technical specification requirements, technical specification basis, regulatory background, industry practice, and implementing procedures at a nuclear power plant for required logic system functional testing and simulated automatic actuation testing of emergency core cooling systems and primary containment isolation.

Reviewed plant-specific probabilistic risk assessment (PRA). Along with general evaluation, provided assessment of operational considerations and/or lessons resulting from the PRA.

Participated in procedure review and upgrade project.

1982 - 1986 - United States Navy, Division of Naval Reactors

Head, Reactor Plant Systems - New Design Submarine.

Lead responsibility for reactor plant performance, safety, and quality.

Conducted various trade-off studies to establish overall design criteria for new design reactor and propulsion plant. This included evaluation of possible performance maintainability, survivability, constructability, and cost. Established general design characteristics for further development.

Evaluated various proposed core designs to determine optimum design to fit overall propulsion plant design goals. This included evaluation of thermal hydraulic performance, safety evaluation, normal plant response analysis, and reactor structural design assessment, including response under shock loading.

Reviewed and approved conceptual system designs, performance criteria, and detailed design bases. As design progressed, this included increasing levels of detail to system design descriptions, design calculations, component sizing, system schematics, and construction details.

Participated in design of major plant components to ensure structural soundness, compliance with overall design goals, and ability to interface with other systems and propulsion plant arrangement.

Reviewed and approved design of reactor plant structures, such as component foundations.

Reviewed and approved plant equipment and system arrangements.

Reviewed reactor and plant control system designs for compatibility with mechanical system designs and core performance and capabilities.

Reviewed and approved operating transient response predictions to be used in life-cycle evaluations of plant.

Developed life-cycle plant operating profile based on mission requirements and data from previous submarine classes.

Had lead responsibility for design initiatives to mitigate the consequences of complete loss of AC power and to ensure safety of surrounding population if this type event occurred near port.

Participated in extensive effort to reduce plant weight. Potential weight reduction concepts were each evaluated for its total effect on capability, constructability, life-cycle cost, and maintainability.

Participated in Naval Reactors crew quizzes for crews of operating submarines to test knowledge and ability of ship crew to safely and efficiently operate the propulsion plant. Responsibility was mainly for testing in the area of reactor plant mechanical system operation.

1980 - 1982 - United States Navy, Division of Naval Reactors

Head, Reactor Plant Systems - TRIDENT Submarines.

Supervised engineering group. Directed efforts concerning design, construction, operation, maintenance, testing, and configuration control of reactor plant fluid systems and structures for TRIDENT submarine. Similar duties in connection with land-based TRIDENT reactor plant prototype.

Responsible for shock design of shipboard reactor plant components and structures. Similarly, responsible for seismic design of structures, systems, and components unique to land-based prototype. Seismic design was done to the same criteria imposed on commercial nuclear power plants.

Developed IST/ISI program for land-based prototype conforming to ASME Code, Section XI. These programs were in compliance with the requirements imposed on commercial nuclear power plants.

Responsible for design, acceptance testing, operation and maintenance procedure for emergency core cooling system for the land-based prototype. This system was

designed to comply with NRC requirements imposed on commercial power plants for similar systems.

Responsible for preparation of reactor plant operating, maintenance, and test procedures.

Evaluated operation incidents and established corrective actions based on these evaluations.

Evaluated and resolved construction deviations from specified requirements.

Participated in examination of prototype operating crews to evaluate level of knowledge and capability to safely operate the reactor plant.

Responsible for design, construction, operation, and maintenance of support systems, such as process cooling water and associated cooling tower to support prototype operation.

1976 - 1980 - United States Navy, Division of Naval Reactors

Project Engineer, TRIDENT Class submarine propulsion plant design.

Coordinated government laboratory and shipyard work in all phases of design, construction, operation, testing, and maintenance of steam plant fluid systems for TRIDENT submarines and land-based TRIDENT submarine prototype.

Responsible for design of shipboard structures and piping systems in accordance with shock design criteria.

Responsible for preparation of verbatim compliance operating and maintenance procedures. This included performance of procedure verification and validation.

Responsible for design of safety systems unique to the land-based prototype, including compliance with NRC requirements for similar systems in commercial power plants.

Evaluated and resolved shipyard construction deviations for structures and systems.

Participated in the evaluation, analysis, and resolution of large-scale shipyard error resulting in unapproved material substitutions. This involved tracking and identifying where incorrect materials had been used, evaluating and testing the acceptability of the material as-built, and approving the as-built condition or specifying the required rework.

Testimony

State of New Hampshire Decommissioning Finance Committee hearing on the Seabrook Nuclear Power Plant decommissioning funding, 1994.

Mitsubishi Heavy Industries, Ltd (Japan) v. Finmeccanica S.p.A., Azienda Ansaldo (Italy), as successor in interest to Ansaldo S.p.A., International Court of Arbitration, Case Number 10269/OL/ESRT/TE, June 2001.

Tennessee Valley Authority v. United States of America, Case No. 01-249C, July 2005.

SFI Mississippi v. United States of America, Case No. 03-2624C, September 2006.

Boston Edison v. United States of America, Case No. 99-447C and 03-2626C, June 2007.

Wisconsin Electric v. United States of America, Case No. 00-697C, September 2007.

Dairyland Power Cooperative v. United States of America, Case No. 04-0106C, July 2008.

Entergy Corporation and Affiliated Subsidiary Companies v. Commissioner of Internal Revenue, Docket No. 10557-08, June 2008.

Consolidated Edison Company of New York, Inc. v. United States of America, Case No. 04-33C, June 2009.

Entergy Nuclear Indian Point 2, LLC v. United States of America, Case No. 03-2622C, June 2009.

Entergy Nuclear Generation Company v. United States of America, Case No. 03-2626C, September and October 2009.

Entergy Nuclear Vermont Yankee, LLC v. United States of America, Case No. 02-898C, March and April 2010.

Portland General Electric, the City of Eugene Oregon, and PacifiCorp v. United States of America, Case No. 04-0009C, November 2011.

System Fuels, Inc. and Entergy Arkansas, Inc. v. United States, Case No. 03-2623C, October and November, 2012.

State of Vermont Public Service Board, Docket No. 7862, Petition for Amendment of Certificate of Public Good for Vermont Yankee Nuclear Power Station.

System Fuels, Inc. and Entergy Arkansas, Inc. v. United States, Case No. 12-389C, July 2014.

System Fuels Inc., System Energy Resources, Inc., and South Mississippi Electric Power Association v. United States, Case No. 11-511C, October 2014.

Entergy Gulf States, Inc. and Entergy Gulf States Louisiana, LLC. V. United States, Case No. 03-2625C, May 2015.

Entergy Nuclear FitzPatrick, LLC., Entergy Nuclear Indian Point 3, LLC., and Entergy Nuclear Operations, Inc. v. United States, Case No. 03-2627C, August 2015.

Entergy Nuclear Indian Point 2, LLC v. United States, Case No. 13-19C, April 2016.

Sacramento Utility District v. United States, Case No. 15-577C, October 2016.

State of Vermont Public Utilities Commission, Docket No. 8880, Joint Petition to Transfer Ownership of Entergy Nuclear Vermont Yankee, May 2018.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE SECRETARY

In the Matter of)	
)	
)	
ENTERGY NUCLEAR OPERATIONS, INC.,)	
ENTERGY NUCLEAR GENERATION)	
COMPANY, AND HOLTEC)	Docket Nos. 50-293 & 72-1044
DECOMMISSIONING INTERNATIONAL,)	
LLC; CONSIDERATION OF APPROVAL OF)	
TRANSFER OF LICENSE AND)	
CONFORMING AMENDMENT)	
)	
(Pilgrim Nuclear Power Station))	
)	

DECLARATION OF DAVID E. HOWLAND

I, David E. Howland, declare and state as follows:

1. I am classified as an Environmental Engineer IV and serve as the Regional Engineer in the Western Regional Office for the Massachusetts Department of Environmental Protection (MassDEP). I joined the Massachusetts Department of Water Pollution Control, a precursor to MassDEP, in 1974. Since that time, I have held positions and roles with progressively increasing responsibility in multiple program areas such as Water Pollution Control, Air Pollution Control, Solid Waste Management, Hazardous Waste Management, Waste Site Clean-up, Drinking Water, and Wetlands until I reached my current position in 2000. I hold a Masters of Public Health from the University of Massachusetts – Amherst and a Bachelor of Science Degree from St. Lawrence University. Additional details about my background and experience are included in my resume, which is attached to this declaration. I submit this declaration in support of the Commonwealth of Massachusetts’ petition for leave to intervene and hearing request in this matter.

2. In my current position, I manage complex special projects for MassDEP such as the decommissioning of the Mt. Tom Coal Burning Power Station in Holyoke, Massachusetts (Mt. Tom). As the project lead for MassDEP, I drafted and helped negotiate an Administrative Consent Order (ACO) with Mt. Tom's owner that sets forth the Commonwealth's requirements for remediating soil contamination, closing coal ash disposal areas and demolishing structures. During the decommissioning process, I worked with MassDEP program staff and Mt. Tom's representatives to execute the ACO. This work draws on my extensive experience in environmental protection and hazardous material remediation and work-related training in such areas as asbestos abatement, wastewater treatment, drinking water protection, and risk assessment. My graduate education focused on environmental health and engineering, which provided me with foundations in ecology, chemistry, pollution control design, and policy development. I also managed or helped to manage the MassDEP oversight of the non-radiological decommissioning of the Yankee Nuclear Power Station in Rowe, Massachusetts (Yankee Rowe) between 2001 and 2007. This was the period of site assessment, remediation and demolition of Yankee Rowe. In that capacity, I supervised MassDEP employees in various environmental program areas such as groundwater contamination assessment, solid waste management, hazardous waste management, asbestos abatement, wetland protection and the Massachusetts Contingency Plan (MCP)—all programs that had regulatory authority over activities undertaken by Yankee Rowe to decommission the site. I also met with Yankee Rowe managers, engineers and scientists to review in detail decontamination plans and environmental permit requirements. I reviewed progress reports and visited the site regularly.

3. I have reviewed Entergy Nuclear Generation Company and Holtec International's application to transfer, among other things, Pilgrim Nuclear Power Station's (Pilgrim) Renewed

Facility Operating License to Holtec and Holtec's Revised Post-Shutdown Decommissioning Activities Report (Holtec PSDAR) and Revised Site-Specific Decommissioning Cost Estimate for Pilgrim (Cost Estimate). Based on my review of the application and Holtec's PSDAR and Cost Estimate, there exists a significant possibility that Pilgrim's Decommissioning Trust Fund does not, and will not, provide Holtec with sufficient funds to complete the work outlined in its PSDAR, including decommissioning and restoring the site, and also managing spent nuclear fuel onsite. As outlined more fully below, that conclusion is based on my experience with Yankee Rowe and the absence of a comprehensive site characterization (radiological surveys and a non-radiological assessment) for Pilgrim that would allow for the accurate and reliable cost estimate that is currently missing.

4. One of the most important lessons learned from the Yankee Rowe decommissioning process was the need and importance of a comprehensive (radiological and non-radiological) site characterization. A comprehensive site characterization is used to fully determine the scope of site contamination, the appropriate remediation method, and to estimate the cost to clean-up the site. Until a comprehensive site characterization is performed, radiation specialists, environmental engineers and other consultants simply cannot estimate with any reasonable certainty how much it will cost to perform all necessary work. At Yankee Rowe, for example, the licensee used the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM), modified to incorporate non-radiological assessment, as guidance to characterize site contamination. The MARSSIM uses an iterative process to characterize the scope of contamination that is much like site characterization process outlined in the MCP, *see, e.g.*, 310 C.M.R. § 40.830 (2014). For this reason, it formed the basis for using the MCP to conduct a combined risk assessment (radiological and non-radiological) to ascertain both human health risk

and ecological risk at the site after decommissioning. The environmental standards in the MCP were utilized as a guide to determine the level of remediation needed to dismantle the facility and remediate site contamination.

5. The site characterization conducted at Yankee Rowe led to the discovery of previously unaccounted for contamination that caused costs to escalate significantly above and well beyond the original, pre-characterization cost-estimates. At Yankee Rowe, for example, the discovery of polychlorinated biphenyl (PCB) contaminated soils and structures and the discovery of a tritium release from the spent fuel pool dramatically increased actual cleanup costs. The PCB contamination by itself caused significant cost increases because it is extraordinarily expensive to recover and treat PCB contaminated soils and sediment. The discovery of PCB-coated steel and concrete building components also proved costly, because the PCBs had to be removed prior to recycling, reusing, or local landfill disposal of non-PCB contaminated materials. Remaining PCB contaminated waste had to be transported to a PCB licensed disposal facility. In addition, the discovery of the tritium release necessitated an extensive and costly hydrological assessment to accurately depict the plume. Without a thorough facility characterization of potentially impacted areas, these types of issues and the associated cost increases cannot be quantified and decommissioning and site restoration costs cannot be estimated with any reasonable certainty.

6. The Yankee Rowe decommissioning process also reinforces the fact that one cannot isolate the costs associated with radiological decontamination work from the costs associated with the remediation of non-radiological contamination. At Yankee Rowe, for example, the comprehensive site characterization discovered that facility structures at the site would contain both radiological and chemical contamination. Because of this discovery, Yankee Rowe had to

work with both state and federal regulatory authorities to select appropriate abatement and disposal options for the debris. It was also difficult to isolate the radiological wastes from the non-radiological wastes, which caused the incurrence of costs that could not be attributed solely to radiological or non-radiological decontamination efforts. Holtec's plan recognizes this fact, as it proposes to conduct both radiological and non-radiological work at the same time and over a short eight-year period. Based on my experience, I do not believe radiological decontamination can be conducted independently from hazardous materials decontamination. For this reason, it is not possible to evaluate whether Pilgrim's Decommissioning Trust Fund contains sufficient funds by looking only at radiological decontamination costs.

7. In this case, Holtec's PSDAR also does not reference any site-based empirical data to support the work plan or its cost projections. For this reason, MassDEP is unable to determine if Holtec can perform the non-radiological clean up and restoration work outlined generally in its PSDAR without significant cost overruns. For example, as outlined above, the presence of PCBs can result in significant cost increases due to the need to assess and remediate contaminated soil, groundwater, and dispose of structural components. Given Pilgrim's age, it is likely that Holtec will discover PCBs in coatings, caulk and oils throughout the plant once it performs a comprehensive site assessment. As with PCBs, asbestos abatement of mastics, mortar mixes, caulk, flooring, wall board, ceiling tiles, roofing and insulation will be a significant and costly environmental clean-up obligation. Other materials such as lead and halogenated degreasers like trichloroethylene can require extensive work to remediate and are likely to be found at Pilgrim given its age and the activities conducted at the site.

8. I, David E. Howland, have read the above statement consisting of 6 pages, and I certify under penalty of perjury that the foregoing is true and correct. Executed on February 19, 2019.



DAVID E. HOWLAND
Regional Engineer
Western Regional Office
Massachusetts Department of
Environmental Protection

Professional Profile

As **Regional Engineer** (present) for the Massachusetts Department of Environmental Protection (DEP) - Western Regional Office in Springfield, Massachusetts I manage complex projects such as:

- Mt. Tom Power Station – decommissioning project under a MassDEP ACO
- Palmer Renewable Energy – licensing of wood fuel to energy project 35 MW
- NPDES Permit for PED/General Electric Co. – permit renewal for PCB contaminated flows
- June 2011 Tornado Response Team – disaster response action
- Yankee Nuclear Power Station in Rowe – decommissioning project under a MassDEP MOU
- Mormon Hollow Landfill – emergency response action to stabilize major slope failure,
- Clean Energy Results Program – initiative to encourage clean energy development

In addition, I serve on the Regional Enforcement Review Committee, the Coordinating Council of the Plan Progress Committee for the Pioneer Valley Planning Commission and the Independent Service Operators Environmental Advisory Committee.

Since joining the DEP I have worked in progressively more responsible roles from Field Engineer to Acting Regional Director. I have direct experience in water supply, water pollution control, hazardous and solid management, toxic use reduction, waste site clean up and air quality programs. I have a working knowledge of most environmental laws and regulations in the Commonwealth of Massachusetts.

As **Acting Deputy Regional Director** (1996 -2000) I supervised section chiefs (up to 6) and their reporting staff (up to 30) in the development of program plans, the issuance of permits and the initiation of enforcement actions. Major accomplishments include: the implementation of a multi-media inspection program for the industrial sector, the establishment of the watershed approach in regional water program decisions and the refinement of regional compliance and enforcement activities.

As **Acting Regional Director** (1993-1996) I directed all operational functions of the regional office. The regional office was staffed with 120 people at that time and responsible for enforcing the Commonwealth's environmental laws in 101 cities and towns. Major accomplishments included: the consolidation of programs into new office space with a local personal computer network system, the implementation of an enforcement review process, and the advancement of DEP affirmative action goals.

As **Air Quality Chief** (1980 -1988) I directed the Berkshire and Pioneer Valley Air Pollution Control Districts. The districts had a professional staff (up to 14) that enforced the State Implementation Plan of the Clean Air Act (CAA). Functions included the approval of new sources of air pollution, inspection of facilities for compliance CAA and the maintenance of an ambient air quality monitoring network.

As a **Water Pollution Control Engineer** I performed various duties such as stream sampling, water quality basin plans, POTW inspections and reviewed new industrial waste treatment permits.

Credentials and Professional Honors

- Massachusetts Registered Sanitation, Number 716 – 2019
- OSHA ACM Project Manager Certification (40 hr.) – 2015, (8 hr.) – 2019
- EPA Hazardous Waste Operations and Emergency Response (40 hr.) - 1993, (8 hr.) – 2019
- Manuel Carballo Governor's Award for Excellence in Public Service – 1993, 2012
- Legislative Citation for Service to DEP - 1996
- Performance Recognition – 1992 (W. Stockbridge Water Crisis), 1988 (Springfield Chemical Fire)

Education (highest level achieved)

- 1984 - University of Massachusetts, Masters Public Health (MPH), Amherst, Massachusetts

Papers

- Authored and presented a paper to the 77th APCA Annual Meeting entitled, "An Assessment of the Relative Source Impact of Residential Woodburning on the Ambient TSP Levels".

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE SECRETARY

In the Matter of)

ENTERGY NUCLEAR OPERATIONS, INC.,)

ENTERGY NUCLEAR GENERATION)

COMPANY, AND HOLTEC)

DECOMMISSIONING INTERNATIONAL,)

LLC; CONSIDERATION OF APPROVAL OF)

TRANSFER OF LICENSE AND)

CONFORMING AMENDMENT)

(Pilgrim Nuclear Power Station))

Docket Nos. 50-293 & 72-1044

DECLARATION OF PAUL W. LOCKE

I, Paul W. Locke, declare and state as follows:

1. I am the Assistant Commissioner of the Bureau of Waste Site Cleanup (BWSC) at the Massachusetts Department of Environmental Protection (MassDEP). I joined the agency in 1987, when it was known as the Massachusetts Department of Environmental Quality Engineering, as a human health and environmental risk assessor in the Office of Research and Standards (ORS). Before I became Assistant Commissioner in 2015, I was the Section Chief for Risk Analysis in ORS, Director of Policy & Program Development in BWSC, and Director of Response & Remediation in BWSC. I hold a Master of Science (MS) degree in Civil Engineering (Public Health Program) from Tufts University and a Bachelor of Arts (BA) in Chemistry from Harvard College. Additional details about my background and experience are included in my resume, which is attached to this declaration. I submit this declaration in support of the Commonwealth of Massachusetts' petition for leave to intervene and hearing request in this matter.

2. In my role at MassDEP, I have been involved in and supervised MassDEP employees who have been involved in the development, promulgation, and implementation of Massachusetts' regulations, known as the Massachusetts Contingency Plan (MCP), that govern the assessment, cleanup and closure of oil and hazardous material disposal sites (310 C.M.R. §§ 40.0000 *et seq.*). The Massachusetts Oil and Hazardous Material Release Prevention and Response Act, Mass. Gen. L. c. 21E, §§ 1-22 (Chapter 21E) authorizes MassDEP to issue the MCP. In this capacity, I have been involved in and supervised Department staff involved in the assessment and cleanup of numerous large and complex disposal sites subject to the MCP, including sites that are subject to multiple regulatory authorities, such as Federal Superfund sites, Resource Conservation and Recovery Act (RCRA) Corrective Action sites, and U.S. Department of Defense sites, and have included multiple sources of contamination, multiple contaminated media (such as soil, groundwater, surface water, sediment and indoor air), and multiple contaminants (such as oil, polychlorinated biphenyls (PCBs), metals, chlorinated solvents, and radioactive waste). These sites include manufacturing facilities, military bases, power plants, laboratories, and oil terminals. The requirement to assess and cleanup a facility under Chapter 21E and the MCP can arise while a facility is in operation, during decommissioning or after a facility has been abandoned.

3. The MCP specifies the requirements for site notification, assessment (similar to a site characterization in the nuclear power plant decommissioning context), cleanup (if necessary), and site closure. These requirements are applicable to any release of oil or hazardous material. For sites that are considered "Adequately Regulated" pursuant to 310 C.M.R. § 40.0110, the MCP requirements are narrowed to minimize duplicative regulation while maintaining consistent substantive results. There are no "Adequately Regulated" provisions in the MCP for

decommissioning activities under Nuclear Regulatory Commission oversight, therefore the Pilgrim Nuclear Power Plant (Pilgrim) does not qualify under this provision as Adequately Regulated. Specific categories of “Adequately Regulated” sites are listed in the MCP and currently include federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and RCRA sites, state regulated hazardous waste and solid waste landfill facilities, and spills addressed by the U.S. Coast Guard. Both Chapter 21E and the MCP, which, again, Chapter 21E authorizes MassDEP to issue, define the term “hazardous material” broadly to include “any material, in whatever form, which, because of its quantity, concentration, chemical, corrosive, flammable, reactive, toxic, infectious or radioactive characteristics, either separately or in combination with any substance or substances, constitutes a present or potential threat to human health, safety, welfare, or to the environment.” Mass. Gen. Laws c. 21E, § 2, 310 C.M.R. § 40.0006 (definitions). MassDEP has identified radioactive constituents as Contaminants of Concern, i.e., hazardous material, at several disposal sites addressed through the MCP.

4. The MCP allows for the site assessment and cleanup process to match the level of complexity of the contamination found at the site: simple releases can be addressed quickly with minimal cost and, conversely, multiple releases over several years with widespread or unknown contaminant levels can take years and the expenditure of large sums of money to address. To account for site differences, the MCP establishes a phased, seven step approach that is designed to begin and end in six years (a deadline that can be extended upon request), but that allows the responsible party to “close” the site at any point during that process if it can demonstrate that the site poses “No Significant Risk” of harm to health, safety, public welfare or the environment during any foreseeable period of time.

5. At a high level, the seven steps are: (i) notification to MassDEP of any release of oil or hazardous material that meet specified criteria, 310 C.M.R. § 40.0300; (ii) a Phase 1 Initial Site Investigation Report within 1 year of notification, which includes, among other things, site and release history and the nature and extent of the contamination, 310 C.M.R. § 40.0480; (iii) a Phase 2 Comprehensive Site Investigation if the Phase I Investigation does not allow the responsible party to close the site, which includes a comprehensive assessment of the nature and vertical and horizontal extent of contamination and risk characterization, 310 C.M.R. §§ 40.0800 and 40.0900; (iv) an evaluation in Phase 3 of remedial alternatives and the selection of a comprehensive remedial action if a site cannot be closed after Phase 2, 310 C.M.R. § 40.0850; (v) the design, construction, and implementation in Phase 4 of the selected comprehensive remedial action and development of the remedial action plan, 310 C.M.R. § 40.0870; (vi) operation, maintenance, and monitoring in Phase 5 of the selected comprehensive remedial action, 310 C.M.R. § 40.0890; and (vii) site closure when the responsible party can show that they have achieved either a Permanent Solution (i.e., a condition of No Significant Risk exists at the site) or a Temporary Solution (i.e., requires ongoing obligations until a Permanent Solution is achieved), 310 C.M.R. § 40.1000.

6. Pilgrim is located on Cape Cod Bay, adjacent to wetlands, and sits above a Potentially Productive Aquifer. A Potentially Productive Aquifer is an aquifer delineated by the U.S. Geological Survey (USGS) as a high or medium yield aquifer (310 C.M.R. § 40.0006) and such aquifers are protected for their potential future use as a public water supply source (310 C.M.R. § 40.0932). Any oil or hazardous material released to the environment at Pilgrim has the potential to affect both human and environmental receptors through direct contact with contaminated soil, use of the groundwater, and migration to adjacent surface waters and wetland

resources. Based on my experience at MassDEP, large industrial facilities, including power plants like Pilgrim, use a variety of oil and hazardous material as part of their operations and facilities. These include asbestos, transformer oils (including PCB-containing oils), and cleaning and/or degreasing solvents (including chlorinated volatile organic compounds, or cVOCs). Methods for handling, storing and disposing of oil and hazardous materials have evolved over time, and it is not uncommon for older facilities like Pilgrim to have released oil and hazardous materials to the environment following common past practices. The potential impact of any such release is unknown until a comprehensive site assessment is conducted. Both Chapter 21E and the MCP define a “site” to be the location where oil or hazardous material has come to be located. A comprehensive site assessment includes the identification of releases of oil or hazardous material on a property and delineation of the extent of those release – including the investigation of off-property migration that may have occurred.

7. I have reviewed the November 16, 2018 Revised Post-Shutdown Decommissioning Activities Report and DECON Site-Specific Decommissioning Cost Estimate prepared by Comprehensive Decommissioning International, LLC for Holtec Decommissioning International, LLC (HDI). The Revised Post-Shutdown Decommissioning Report notes that Holtec will perform site characterization activities during the decommissioning process to supplement what is currently known about the nature and extent of radiological and non-radiological contamination at the site. Holtec will then use that information to establish contamination levels throughout the plant and adjust activities accordingly. On its face, the Report is, in my opinion, deficient because it (i) does not include an inventory of oil and hazardous materials that have been used at the facility and which may have been released to the surrounding environment and (ii) does not describe assessment activities that would occur

outside the plant that would identify past releases of oil or hazardous materials and any contaminated media that Holtec legally needs to address.

8. I have also reviewed the release notifications and site cleanup activities that have occurred at Pilgrim pursuant to the MCP. As noted above, both Chapter 21E and the MCP require a site owner or operator to notify MassDEP when a release of hazardous material occurs that meets certain specified criteria. MassDEP's records indicate that work was conducted under fourteen (14) distinct Release Tracking Numbers (RTNs) for release notifications that occurred from November 16, 1994 through December 20, 2016. An RTN is the unique file number assigned by MassDEP to a release or threat of release reported in accordance with 310 C.M.R. § 40.0300. The following briefly summarizes those RTNs:

(a) Nine (9) RTNs were assigned for releases of hydrogen gas, and no analysis of impacts to groundwater or soil was performed.

(b) One (1) RTN addressed a release of hydraulic oil to pavement, and no analysis of impacts to groundwater or soil was performed.

(c) One (1) RTN addressed a heating fuel release at a former residential property distant from the facility itself and was not related to plant operation.

(d) One (1) RTN addressed an exothermic reaction of an epoxy/hardener mixture that occurred within a 55-gallon drum and liner, and no analysis of impacts to groundwater or soil was performed.

(e) Two (2) RTNs addressed releases of transformer oil at the Main Transformer system, which included soil and groundwater characterization in the immediate vicinity of the releases.

As noted, eleven (11) of the releases required no investigation of underlying soil or groundwater. The remaining three (3) releases involved limited (localized) soil and groundwater sampling. The results of these investigations provide little insight as to any potential environmental contamination that may be present throughout the site.

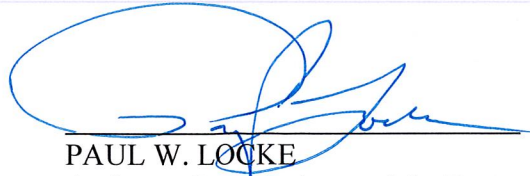
9. Based upon my review of this material and my experience at MassDEP, it is my opinion that Holtec has not adequately evaluated and included in its cost estimate the costs of environmental site assessment, remediation, and restoration and that it is likely that Holtec's cost estimate significantly underestimates what it will actual cost to perform that work. My opinion is also informed by the following facts:

(a) Past environmental site assessments conducted for releases of oil and hazardous material at Pilgrim have been limited in nature and are not indicative of potential contamination present.

(b) The Revised Post-Shutdown Decommissioning Activities Report does not specifically address any environmental assessment of the site soil, groundwater, wetlands and surface water resources that would be implemented as part of the decommissioning.

(c) The costs of environmental remediation and site restoration depend upon the nature and extent of contamination and, ultimately, the risk posed to potentially affected human and environmental receptors. These costs are best estimated following a comprehensive site assessment. The cost estimates for the work at the Pilgrim plant appear to be based on expectations rather than even a Preliminary (Phase 1) Site Assessment that is required under the MCP.

10. I, Paul W. Locke, have read the above statement consisting of 8 pages, and I certify under penalty of perjury that the foregoing is true and correct. Executed on February 19, 2019.



PAUL W. LOCKE

Assistant Commissioner of the Bureau of
Waste Site Cleanup
Massachusetts Department of
Environmental Protection

PAUL W. LOCKE

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 Melrose, Massachusetts 02108
 (781) 662-0844
Paul@Locke.net

EDUCATION

MS in Civil Engineering/Program in Public Health Tufts University, Medford, MA	1987
AB in Chemistry Harvard College, Cambridge, MA	1982

EMPLOYMENT HISTORY

2015-present 2011 (Acting)	Assistant Commissioner Bureau of Waste Site Cleanup Massachusetts Department of Environmental Protection (MassDEP)
2006-2015	Division Director – Response & Remediation Bureau of Waste Site Cleanup Massachusetts Department of Environmental Protection (MassDEP)
2004-2006	Acting Division Director – Policy & Program Development Bureau of Waste Site Cleanup Massachusetts Department of Environmental Protection (MassDEP)
2003-2004	Acting Deputy Division Director Policy & Program Development Bureau of Waste Site Cleanup Massachusetts Department of Environmental Protection (MassDEP)
1992-2002	Chief, Risk Analysis Group Office of Research and Standards Massachusetts Department of Environmental Protection (MassDEP)
1987-1992	Environmental Analyst (Human Health Risk Assessment) Office of Research and Standards Massachusetts Department of Environmental Protection (MassDEP)
1985-1987	Darkroom Technician (weekend supervisor) Ferranti-Dege, Inc., Cambridge MA
1985-1986, 1980-1983	Blood Transfusion Laboratory Technician Massachusetts General Hospital, Boston MA
1983-1985	High School Physics and Chemistry Teacher U.S. Peace Corps - Lycée de Niamtougou, Togo
1982-1983	Research laboratory technician Children's Hospital, Boston MA

EXPERIENCE

Program & Project Management

- Currently manages the MassDEP Bureau of Waste Site Cleanup, comprised of approximately 80 staff in three major programs:
 - Massachusetts Oil Spill Prevention & Response Act (MOSPRA) Program,
 - Massachusetts Natural Resource Damage (NRD) Program
 - Massachusetts Waste Site Cleanup ProgramTogether, the three programs ensure that releases of oil and hazardous material to the environment are reported, assessed, cleaned up, and where applicable, restoration activities are implemented.
- Directed the Waste Site Cleanup Division of Response and Remediation, comprised of approximately 25 technical staff in four areas:
 - Federal Sites Program
 - Information/Communications
 - Compliance & Enforcement
 - Audit Coordination

The Division is responsible for the implementation of the Massachusetts Contingency Plan; co-ordination of Bureau operations across four Regional Offices; development, and implementation of the 21E Site Audit Program; coordination of BWSC compliance and enforcement activities; development of information systems integral to the operation of the cleanup program; development of stakeholder and municipal outreach; development of technical and regulatory training for DEP BWSC staff and Licensed Site Professionals; and coordination with USEPA on federal sites under CERCLA, Federal Facilities; FUDs, Federal Brownfields, and RCRA Corrective Action programs.

- Provides technical oversight and senior review for professional staff preparing enforcement cases, managing state and federal sites, conducting audits, conducting human health and environmental risk assessments, developing policy and writing guidance.
- Lead external Advisory Committees and Workgroups of private-sector risk assessors, environmental consultants, site managers, lawyers and other stakeholders that provide input on DEP regulatory and policy initiatives.
- Prepares project budgets and manage technical assignments including schedule and budget compliance.
- Directs technical and policy staff developing regulations, policies and guidance in all areas of hazardous waste site assessment and remediation.
- Oversees the development of the BWSC Program Plan and the BWSC input to the DEP/EPA Performance Partnership Agreement, coordinating Bureau efforts in Boston and the Regional Offices.

Environmental Regulations, Policies and Guidance

- Directed the development of policy and regulations for the [privatized Waste Site Cleanup Program](#) (2003-2004).
- Authored the risk characterization requirements (Subpart I) of the [Massachusetts Contingency Plan, 310 CMR 40.0000](#).
 - Developed and documented [cleanup standards](#) and Reportable Concentrations for over 100 chemicals in 3 groundwater and 3 soil categories.
 - Supervised and co-authored the [DEP's Guidance for Disposal Site Risk Characterization](#).
 - Periodically reviewed and revised the regulations and standards, including the "Wave 2" revisions to the MCP and BWSC regulations specific to perchlorate in the environment.
- Authored or participated in the development of numerous DEP policies, including policies for the management of soil (e.g., [quarry reclamation activities](#), asbestos-contaminated soil, and "[Similar Soil](#)"), implementing [Best Management Practices for Gardening](#), determining the [feasibility of approaching or achieving background](#), implementing [Best Management Practices for the construction of Rail Trails](#), identifying background conditions, the identification and evaluation of imminent hazards, the implementation of Activity and Use Limitations, and development of audit protocols.

- Participated as a Subject Matter Expert in the development of the examination for [Licensed Site Professionals](#).
- Represent DEP in policy discussions with outside stakeholders, other state regulators and U.S. EPA staff at advisory committee meetings, workshops and other venues.
- Participated in the development of the Hazardous Waste regulations allowing assessment and remediation of RCRA Corrective Action sites under the Waste Site Cleanup privatized program.
 - Promulgated 2007, effective March 2008.
 - Authored DEP policy and developed protocols for Licensed Site Professionals to make [“Contained-In” determinations pursuant to RCRA](#) for the efficient management of soil containing low levels of hazardous waste;
- Participated in the development of regulations to address Cumulative Impacts in the siting of solid waste facilities
 - Drafted and revised regulatory language.
 - Co-authored the *Interim Risk-Evaluation Guidance Document for Solid Waste Facility Site Assignment and Permitting in Support of 310 CMR 16 & 19.000* (2001).

Synthesis, Analysis, and Presentation of Environmental Data

Characterize risks to receptors at hazardous waste sites, solid waste landfills, RCRA facilities and public and private water supplies.

- Development of sampling designs and direction field investigations.
- Evaluation/analysis of chemical analytical data.
- Screening and quantification of potential exposures.
- Evaluation of literature-based and site-specific toxicological data.
- Risk characterization, including probabilistic analysis.
- Documentation of uncertainties and limitations of risk assessments.
- Presentation of results to DEP staff, Potentially Responsible Parties and their consultants, and at public meetings.

Technical Review of Human Health and Ecological Risk Characterizations

- Acted as liaison with the Waste Site Cleanup Audit Group.
- Reviewed Phase II Risk Characterization Reports, Phase II Scopes of Work and Final Remedial Response Plans submitted under the state's 21E program.
- Reviewed landfill closures and evaluations of alternative use under the Solid Waste program.
- Reviewed RCRA Closure and Corrective Action documents submitted under the Massachusetts Hazardous Waste Program.
- Reviewed RI/FS Reports and RODs submitted for Federal Superfund sites in Massachusetts.
- Reviewed monitoring data from contaminated public drinking water supplies under the Massachusetts Drinking Water Program.
- Provided technical assistance to DEP Regional staff.

Environmental Education, Presentations and Community Involvement

- Developed and produced MassDEP's first live, online streaming public meetings, which are also [archived on YouTube](#) for broader outreach.
- Represented DEP at site-specific public meetings to present regulatory, policy, and health and environmental risk assessment information.
- Develops/presents [training courses on technical, regulatory and policy issues](#), for DEP employees and private-sector consultants.
- Developed/presented graduate and undergraduate courses on risk assessment and the Massachusetts Contingency Plan as guest lecturer (Tufts University, Boston University, and Northeastern University).
- Develops/delivers technical and policy presentations at national and regional conferences (including the [Society for Risk Analysis, Association of State and Territorial Solid Waste Management Officials](#), and U.S. EPA workshops).
- Melrose Conservation Commissioner, 1995-2007. Administered the Massachusetts Wetlands Protection Act.
- Recycler, composter and former Little League coach.

COMPUTER WORK SKILLS AND EXPERIENCE

- Advanced skills in word processing, spreadsheet, photography, graphic and web development programs.
- Developed/programmed the *Risk Assessment ShortForm* (semi-finalist, Innovations in American Government Awards)
- Founder and former manager of the [Massachusetts DEP World Wide Web](#) site and the [Society for Risk Analysis – New England](#) site. Currently manager for the [Melrose Incarnation Youth Baseball League](#) and the [Harvard 1982 – 25th Reunion](#) websites.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE SECRETARY

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC.,)
ENTERGY NUCLEAR GENERATION)
COMPANY, AND HOLTEC)
DECOMMISSIONING INTERNATIONAL,)
LLC; CONSIDERATION OF APPROVAL OF)
TRANSFER OF LICENSE AND)
CONFORMING AMENDMENT)

Docket Nos. 50-293 & 72-1044

(Pilgrim Nuclear Power Station)

DECLARATION OF JOHN M. PRIEST, JR.

I, John M. Priest, Jr., declare and state as follows:

1. I am the Director of the Radiation Control Program at the Massachusetts Department of Public Health (DPH). I have held that position since 2014 when I joined the agency. Prior to my employment at DPH, I worked for 26 years in varying capacities at multiple nuclear power plants, including Pilgrim Nuclear Power Station (Pilgrim). During that time, for example, I was responsible for oversight of radiological plant surveys to support power plant operations, the radiological monitoring of the station staff and members of the public, and emergency planning activities with federal, state and local agencies. I hold a Bachelor of Science degree in Radiological Health Physics from the University of Lowell. A copy of my curriculum vitae, which includes a complete list of my experience, is attached to this declaration. I submit this declaration in support of the Commonwealth of Massachusetts' petition for leave to intervene and hearing request in this matter.

2. In my role at DPH, I have implemented a comprehensive environmental laboratory monitoring program, including a real-time monitoring system in the vicinity of Pilgrim. Additionally, the Radiation Control Program conducts environmental radiation monitoring outside the Pilgrim fence line (Mass. Gen. Laws c. 111, § 5k), collecting food samples such as milk, vegetables, fish, etc. In this role, I am also responsible for reviewing and approving applications for Massachusetts Radioactive Material Licenses, including oversight of low-level radioactive waste generation, and for overseeing the decommissioning of Massachusetts-licensed facilities pursuant to 105 C.M.R. §§ 120.244-120.258. Under Massachusetts' facility decommissioning regulations, sites are acceptable for unrestricted use where residual radioactivity is equal to or less than 0.10 mSv per year (10 millirems/yr.). In addition, I have also been involved in emergency planning and response activities at Pilgrim.

3. I am familiar with the proposed sale of Pilgrim from Entergy to Holtec, Inc. I have reviewed documents filed with the Nuclear Regulatory Commission (NRC) by Holtec International, including Holtec's Revised Post-Shutdown Decommissioning Activities Report and Revised Site-Specific Decommissioning Cost Estimate (Holtec PSDAR) for Pilgrim and the License Transfer application. Based on my review of the Holtec PSDAR, my knowledge of Pilgrim, gained both through my work at the plant and industry experience related to reactor decommissioning, and my role as Director of Massachusetts' Radiation Control Program, I do not believe that Holtec has reasonably accounted for all site-specific factors in its decommissioning cost estimate. I reached this conclusion for the following reasons.

SITE-SPECIFIC INVESTIGATION AND ENVIRONMENTAL ASSESSMENTS

4. Holtec has not done and has not indicated to DPH that it plans to do, a full site investigation (radiological and non-radiological) before acquiring Pilgrim from Entergy. A full

site investigation is necessary to accurately determine the ultimate anticipated cost of decommissioning, spent fuel management, and site restoration. Instead, Holtec relied on a series of NRC Generic Environmental Impact Statements for nuclear power plant decommissioning and license termination and renewal, including:

- (a) NUREG-0586, Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities: Supplement 1, Regarding the Decommissioning of Nuclear Power Reactors (2002);
- (b) NUREG-1496, Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities (1997);
- (c) NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 29, Regarding Pilgrim Nuclear Power Station, Final Report, July 2007; and
- (d) NUREG-1437, Revision 1, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, June 2013.

5. The National Environmental Policy Act (NEPA) requires the NRC to prepare a detailed statement assessing the environmental impact of and alternatives to major federal actions, which includes decommissioning of nuclear power plants.

6. In their PSDAR, Holtec relied on previously filed Generic Environmental Impact Statements related to Pilgrim in evaluating whether the environmental impacts associated with decommissioning activities will be constrained by those previous statements and in estimating the costs associated with decommissioning, spent fuel management, and site restoration. NUREG-1437, Revision 1, Generic Environmental Impact Statement for License Renewal of

Nuclear Plants, June 2013, briefly discusses climate change. However, the PSDAR does not discuss the potential future impact of changes to the coastline or water table due to climate change, including the ability to adequately survey below ground components or structures and the discovery of contaminants in previously unassessed areas.

7. NUREG-1437, Revision 1, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, June 2013, Section S.5, discusses the environmental significance of tritium in groundwater and its potential for moderate impact. In 2006, the Nuclear Energy Institute proposed that nuclear power plants begin a voluntary groundwater protection initiative aimed at monitoring for tritium in groundwater. In response, Entergy began monitoring for tritium in groundwater in 6 monitoring wells at Pilgrim Station. In 2007, Entergy voluntarily began reporting its results to DPH; those reports can be found here:

<https://www.mass.gov/lists/environmental-monitoring-data-for-tritium-in-groundwater-at-pilgrim-nuclear-power-station#summaries>.

8. In 2010, Entergy reported increased tritium measured at one well. In response to recommendations from DPH, Entergy has installed additional wells and continued to monitor for tritium and investigate possible sources. To date, the cause of the tritium contamination has not been definitively identified. Entergy reported to DPH that it believed the contaminant was released from cracks in the basement of the condenser bay and into the adjacent seismic gaps between the buildings. To the extent tritium is discovered in groundwater in excess of the drinking water maximum contaminant levels (MCL) set by the U.S. Environmental Protection Agency (EPA), Holtec will have to ensure remediation. It is unknown whether the potential cost of having to remediate tritium in the groundwater was considered in Holtec's PSDAR.

9. Based on my site knowledge, contamination has previously been identified by the utilities in the soil in the vicinity of the condensate water storage tank, the reactor truck lock and radioactive waste building. Further, there were other releases into the environment associated with a former condenser tube refurbishment building east of the radioactive waste truck lock. Historically, contaminated soil from previous site remediation has been “stockpiled” on a small hill along the east protected area fence. DPH does not know whether these sites and others were captured as part of decommissioning records required by 10 C.F.R. § 50.75(g), communicated to Holtec and evaluated by Holtec in its decommissioning cost estimate. Based on my knowledge of this site and experience at other nuclear power plants, it is reasonable to assume based on this site’s history that other contaminants will be identified once excavation and demolition begins.

10. Long-lived radionuclides are likely to be found in soils and groundwater far from the small excavation made to repair the leaks that likely allowed reactor condensate to enter into the site soils for many years. In addition, these same long-lived radionuclides are likely to be found in many other structures, systems, and components, which may also have unknowingly leaked over the decades into soils and the groundwater at the Pilgrim property.

INDUSTRY EXPERIENCE

11. During radiological surveys that occurred prior to decommissioning of the Vermont Yankee Nuclear Power Plant, the Vermont Department of Health found cesium-137, strontium-90, and other long half-life radioactive materials in soil samples. In addition to Vermont Yankee, other New England decommissioning projects at Maine Yankee and Connecticut Yankee uncovered long half-life radioactive materials and hard-to-detect radionuclides in soils. Similar contaminants can be expected at the Pilgrim property, including carbon-14, nickel-63, strontium-

90, cesium-137 and transuranics, which include radioisotopes of plutonium, curium, neptunium, and americium.

12. Discussions with the New England Compact, Health Department staff in Vermont and Maine and Department of Energy and Environmental Protection staff in Connecticut indicate that decommissioning activities commonly reveal previously unidentified and unknown radiologically contaminated media that must be addressed and remediated during decommissioning and prior to license termination. For example, highly contaminated pockets of groundwater were discovered dammed up by existing subsurface structures at Maine Yankee and caused significant cost increases. In addition, the licensee at Connecticut Yankee had to excavate a large trench in soil around the reactor and its components that was not identified or accounted for in Connecticut Yankee's initial planning and cost estimates.

13. The Holtec PSDAR neither identifies nor reasonably accounts for the challenges of remediating contaminants encountered during decommissioning, including but not limited to tritium, radioactive "hard to detect" or other long-lived radionuclides in the soil and in structures, systems, and components. These considerations should be factored into the planning and funding for the decommissioning of Pilgrim, but it is not apparent from the PSDAR that Holtec did so.

14. The discovery of additional contamination not accounted for in previous site investigations or previously filed Generic and Site-Specific Environmental Impact Statements will result in additional costs to Holtec. A complete site characterization (i.e., an assessment of the vertical and horizontal extent of all radiological and non-radiological contamination at the site) and a Supplemental Environmental Impact Statement that considers the information yielded by such a site-specific characterization and considers climate change effects is necessary to provide a more accurate basis on which to estimate costs of decommissioning.

EXCAVATION / DEMOLITION

15. During discussions with DPH, Holtec has stated that previous remediation of Pilgrim eliminates the need to excavate deeper than three feet below grade. Consistent with this, Holtec's PSDAR states that "During demolition, above-ground structures will be removed to a nominal depth of three (3) feet below the surrounding grade level. Characterization surveys will then be performed in the remainder of the below ground structures and any areas with activity exceeding established [Derived Concentration Guideline Levels (DCGLs)] will be removed."

16. Industry experience regarding the presence of "hard to detect" and long-lived radionuclides at other nuclear decommissioning sites, as discussed above, creates doubt that Holtec will not need to excavate deeper than three feet below grade.

17. The Holtec PSDAR does not detail their plan to address soils outside the structures and components and how they would be characterized and remediated. As written, Holtec does not account for the costs or evaluate the health and safety effects of such a contamination. It is not clear from the Holtec PSDAR that Holtec addressed these issues in the contingency analysis in its cost estimate or, if it did so, whether it properly accounted from them. A detailed analysis of the likelihood of further excavation and associated costs is necessary to accurately estimate those contingencies.

ENVIRONMENTAL RADIATION MONITORING

18. The Holtec PSDAR does not describe the planned radiological environmental monitoring program, including both continuation of "real time" monitoring, direct radiation exposure dosimetry and environmental land use analysis (monitoring power plant by-product radionuclides in milk, vegetation, seafood, etc.). These activities should be conducted through the decommissioning timeframe, including spent fuel pool cleanout, dry fuel storage cask

loading, reactor building and associated structure demolition, and finally site restoration. The values in table 3-1 of the cost estimate included in the PSDAR represent a small fraction of costs needed to continue the current level of environmental monitoring. These considerations should be factored into the planning and funding for the decommissioning of the Pilgrim property.

19. The radiological environmental monitoring program should include a plan to submit all legacy and NRC-filed site assessments and surveys to Massachusetts, conduct radiological and non-radiological groundwater contamination sampling, report results to Massachusetts, and provide split samples as requested.

EMERGENCY PLANNING

20. The PSDAR does not adequately address preparedness in the event of a radiological emergency during decommissioning or the transfer of spent fuel to the spent fuel pool or from the spent fuel pool to dry casks or consider the cost of such an incident. An adequate radiological emergency preparedness plan would include specific protocols for both “small scale” host community events and “larger scale” state resource scenarios.

21. Holtec does not adequately address their capabilities to monitor and respond to the following:

- (a) Leaks of large quantities of radioactive materials in solid or liquid form into the environment;
- (b) Deficiencies in the structures, systems, and components containing stored radioactive materials;
- (c) Response plan for emergent scenarios including combustible fires containing either low level radioactive contaminants or spent fuel, and hostile actions that destroy key structures that store radioactive materials;

- (d) Security measures surrounding the dry fuel pad, which should include substantial physical barriers, especially once it is relocated closer to a nearby road;
- (e) Details on remote and onsite radiation monitoring of the facility and spent fuel storage; or
- (f) Adequate routine physical inspection of dry casks and detailed contingency for damaged/degraded dry fuel storage containers.

22. All of these items represent discrete, foreseeable risks that Holtec did not provide sufficient detail that they have considered and accounted for in the PSDAR.

RADIOACTIVE WASTE TRANSPORTATION

23. The Holtec PSDAR addresses the transportation approach for Class A, Low Specific Activity, or Surface Contaminated Object classes of waste. It states Holtec will use a combination of truck, rail and potentially barge to support bulk quantity removal of waste. Since there is no active rail line at the site, Holtec states that a truck will be used to deliver the waste to a transload facility in Massachusetts. However, no such transload facility is licensed by the Massachusetts Radiation Control Program to perform such waste processing or repackaging for waste transfer. A more specific waste removal plan would be necessary to provide an accurate cost estimate.

24. Additionally, regarding the safety of transfer and storage of radioactive materials, the Holtec PSDAR does not include details describing state review for removal and transportation of all radioactive waste, and does not describe provision of funding to agencies that will expend resources on plan review, approval and implementation, such as the Massachusetts State Police for route planning and escort of high level waste.

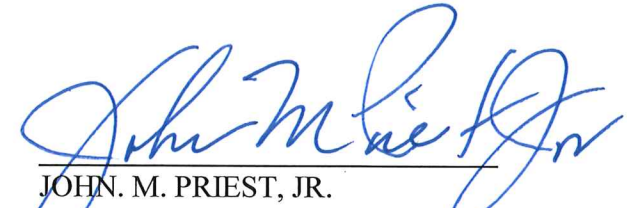
RADIOLOGICAL STANDARDS

25. The Holtec PSDAR only references the NRC Final Status limit of 25 millirems per year for unrestricted release from all pathways. The Massachusetts standard for unrestricted release of residual radioactivity (cleanup) is no more than 10 millirems per year (105 C.M.R. § 120.245). In addition, EPA has established a drinking water MCL of no more than 4 millirems per year. The Holtec PSDAR does not include details describing Holtec's plan for testing and demonstration for meeting the Massachusetts cleanup standard or the EPA drinking water MCL for all property transferred from Entergy to Holtec.

26. In order to apply a consistent clean up standard for all sites containing radioactive materials in Massachusetts, DPH issued a formal request that Holtec submit a proposed compliance document detailing the methods and protocols for compliance with the Massachusetts clean-up and EPA drinking water MCL prior to the unrestricted release of all or any part of the property transferred from Entergy to Holtec. DPH additionally requested these clean-up standards be incorporated into Holtec's PSDAR.

27. Holtec's PSDAR neither incorporated the Massachusetts cleanup standard nor the EPA groundwater standard, but noted that they are "actively engaged in discussions with the Commonwealth of Massachusetts related to the establishment of an independent voluntary agreement regarding radiological release standards." Holtec has expressed a willingness to sign an agreement with the Commonwealth on the radiological release standard.

28. I, John. M. Priest, Jr., have read the above statement consisting of 11 pages, and I certify under penalty of perjury that the foregoing is true and correct. Executed on February 19, 2019.



JOHN. M. PRIEST, JR.
Radiation Control Program, Director
Massachusetts Department of Public Health

CURRICULUM VITAE

JOHN M. PRIEST, JR.

EDUCATION - PROFESSIONAL EXPERIENCE

BS- Radiological Health Physics, University of Lowell, 1986.
ANSI N45.2.23 Certified Lead Quality Assurance Auditor

Director Radiation Control Program – Commonwealth of Massachusetts

March 2014-present

Areas of responsibility are: license users of ionizing radiation producing equipment and radioactive materials; register owners of non-ionizing radiation producing equipment; maintain emergency planning and response capabilities; implement a comprehensive environmental laboratory monitoring program, including a real-time monitoring system in the vicinity of an operating nuclear power plant; regulate mammography facilities; direct a radioactive materials licensing and inspection program, including the maintenance of the Agreement State Program.

Manager Emergency Preparedness

Pilgrim Nuclear Station, Entergy

Accountable to facilitate emergency operations and recovery activities in accordance with Nureg-0654. Responsible manager for utility first Hostile Action Based Exercise Preparations. No Findings and positive comments from regulators on the performance of the drill and exercise. Responsible for managing the budget including grants and contract management to support the emergency preparedness program.

Project Manager Entergy

Pilgrim Nuclear Station, Entergy

Project Manager for the Entergy, Pilgrim Nuclear Station Fukushima Flex response. This included the sourcing, procurement and testing for the Pilgrim Flex Strategy equipment. I was responsible for the management of a \$1.2M annual operating O&M and capital budget to support this project.

Radiation Protection Manager

Pilgrim Nuclear Station, Entergy

Oversight and development of the Entergy, Pilgrim Nuclear Station Radiation Protection program. I was responsible for the management of an annual operating O&M and capital budget to support plant operations. No NRC findings or INPO Significant RP events during my tenure.

Radiation Protection Manager

Fermi Nuclear Station, Detroit Edison

Fermi 2 BWR, decommissioning of the Fermi 1 plant and the non-nuclear (fossil and gas) Detroit Edison radioactive material licenses. Detroit Edison has an operating staff of 70+ technicians, scientific professionals and contract support staff. In addition, Detroit Edison provides contract NVLAP dosimeter processing services to the industry.

**Health Physicist/ Radiological Engineer
First Energy/Detroit Edison**

ALARA planning and shielding analyses for both BWR and PWR facilities, implementation of various teledosimetry / remote monitoring systems including the oversight of programs for internal / external dosimetry, instrument calibrations, air sampling, environmental releases; Preparation and submission of the Offsite Dose Calculation Manual, write environmental operating reports, examining multiple waste streams, and submission of other technical reports for demonstration of current program status, or to seek regulatory modifications; responsibilities included the development of plans, procedures and drill scenarios for offsite radiological monitoring.

**Lead Quality Assurance Auditor (ANSI N45.2.23)
Detroit Edison**

Completion of routine audits and self-assessments relating to all areas of power plant functions including Operations, Maintenance, Radiation Protection, Security and industrial safety programs; Performance of vendor quality related audits and surveillances to support both NUPIC and utility procurement programs; Radiation Protection/ Environmental specialist for licensee peer audits.

EMPLOYERS

Entergy, Pilgrim Nuclear Power Station	6/2008 – 3/2014
Detroit Edison, Fermi 2 Nuclear Power Station	7/2000 – 6/2008
First Energy, Davis Besse Nuclear Power Station, Perry Nuclear Power Station	3/1988 - 6/2000
Westinghouse Hanford, Hanford Reservation Richland, WA	9/1987 - 3/1988
United Nuclear Corp., N-Reactor, Richland, WA	7/1986 - 9/1987

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE SECRETARY

In the Matter of)	
)	
)	
ENTERGY NUCLEAR OPERATIONS, INC.,)	
ENTERGY NUCLEAR GENERATION)	
COMPANY, AND HOLTEC)	Docket Nos. 50-293 & 72-1044
DECOMMISSIONING INTERNATIONAL,)	
LLC; CONSIDERATION OF APPROVAL OF)	
TRANSFER OF LICENSE AND)	
CONFORMING AMENDMENT)	
)	
(Pilgrim Nuclear Power Station))	
)	

DECLARATION OF TIMOTHY NEWHARD

I, Timothy Newhard, declare and state as follows:

1. I am a financial analyst with the Massachusetts Office of the Attorney General (“OAG”) working in the Energy and Telecommunications Division of the Energy and Environment Bureau. I have held that position since 1981 when I joined the Office. I hold a Master’s Degree in Business Administration from Northeastern University and a Bachelor’s of Science Degree in Engineering Physics from the University of Maine. A copy of my curriculum vitae, which includes a complete list of my experience, is attached to this declaration. I submit this declaration in support of the Commonwealth of Massachusetts’ petition for leave to intervene and hearing request in this matter.

2. In my role at the OAG, my responsibilities include reviewing utilities’ requests for the recovery of costs of providing rate regulated utility service. The costs that the utilities request for recovery include a return of and on their investment in their generation plants as well as the decommissioning costs of those plants. During my time at the OAG, I have reviewed at

various times the reasonableness of the decommissioning costs of all of the nuclear power plants in New England, including Yankee Rowe, Maine Yankee, Connecticut Yankee, Millstones 1, 2 and 3, Seabrook, and Pilgrim.

3. I am familiar with the proposed transfer of Pilgrim Nuclear Power Plant (Pilgrim) from Entergy to Holtec, Inc. In particular, I have reviewed: (i) Entergy Nuclear Generation Company and Holtec International's application to transfer, among other things, Pilgrim's Renewed Facility Operating License to Holtec and (ii) Holtec's Revised Post-Shutdown Decommissioning Activities Report and Revised Site-Specific Decommissioning Cost Estimate (Revised PSDAR) for Pilgrim. Based on my review of the license transfer application and Revised PSDAR and my knowledge and understanding of nuclear power plant decommissioning costs, I do not believe that Holtec has sufficient funds in the Nuclear Decommissioning Trust Fund as described in the application (including Holtec's request for an exemption to use the Pilgrim Decommissioning Trust Fund to cover site restoration and spent fuel management costs) to guarantee covering the reasonably expected costs of decommissioning Pilgrim, restoring the site, and managing the spent nuclear fuel until it has been removed from the site.

4. Holtec's application provides for only one source of funds to decommission Pilgrim and restore the site and manage spent fuel onsite until it is removed, Pilgrim's Decommissioning Trust Fund and the expected earnings from investing the funds in that account.

5. Holtec indicates that the entity that will own Pilgrim after the transfer will be a limited liability company with no other significant resources to cover all of the costs of the activities discussed in the Revised PSDAR other than the Decommissioning Trust Fund. Thus, unlike rate regulated utility owners of generation plants, Holtec will not be able to recover from ratepayers any additional money to cover any possible shortfall. Additionally, Holtec's parent

has not supplied any assurance or guarantee to cover those costs, if there is a shortfall in the Fund.

6. Holtec did not provide the workpapers, calculations, formulas, assumptions, and other supporting documentation for its Cost Estimate for Pilgrim, and therefore the reasonableness of the Cost Estimate (including particular line items) cannot be determined.

7. Holtec's PSDAR contains its decommissioning cost estimates, which includes as one of the most significant costs of decommissioning—the cost of disposal of radioactive materials. Holtec estimates the disposal cost to be \$152 million, stated in 2018 dollars, assuming that it has full access to the Andrews County, Texas facility. Holtec does not indicate that it is affiliated with or has contracted with the Texas facility or with any other particular disposal facility.

8. The United States Nuclear Regulatory Commission ("NRC") issued its "Report on Waste Burial Charges: Changes in Decommissioning Waste Disposal Costs at Low-Level Waste Burial Facilities, Final Report" in February 2019. That Report estimates the costs for Boiling Water Reactors ("BWRs") like Pilgrim that expect to use the Andrews County, Texas ("Texas") disposal facility. In the February 2019 Report, the NRC estimates that the disposal cost for a BWR, using the Texas facility, is \$199 million in 2018 dollars. The NRC estimate would be approximately \$47 million more than Holtec's estimate for disposal. In the February 2019 Report, the NRC estimates that the disposal cost for a BWR, using a non-compact disposal facility and the Texas facility is \$257 million in 2018 dollars. This estimate is approximately \$105 million more than Holtec's estimate for disposal. In the February 2019 Report, the NRC estimates that the disposal cost for a BWR, using a non-compact disposal facility is \$322 million in 2018 dollars. This estimate is approximately \$170 million more than Holtec's estimate for disposal. Holtec has not provided the workpapers, calculations, formulas, assumptions, and

other supporting documentation for its disposal cost estimates for Pilgrim. Without having that documentation, there is no basis for which to determine the reasons that Holtec's disposal cost estimate is so much lower than the NRC's estimate and whether that difference is reasonable or justified.

9. The entity prepared to decommission Vermont Yankee Nuclear Power Station ("Vermont Yankee") has provided much more in financial assurances, beyond the nuclear decommissioning trust fund, towards the decommissioning of that plant than has been provided for Pilgrim. These financial assurances include, among others, approximately \$400 million for bonding of major subcontracted work on decommissioning to provide some assurance that subcontractors complete work in a cost effective and timely manner, \$25 million in the form of a letter of credit tied to the start and/or completion date milestones to assure that decommissioning activities overall occur in a reasonable timeframe to minimize costs, a support agreement from the affiliated services company for \$140 million payable to the decommissioning trust fund, an escrow account with a minimum balance of \$55 million for a Site Restoration Trust to insure that some designated funds are available for site restoration and the retention of proceeds from the Department of Energy Standard Contract litigation for spent fuel management to cover the other costs of decommissioning. None of these financial assurances are present or being offered by Holtec here.

10. Holtec's assumption regarding the earnings on the decommissioning trust fund is also overly optimistic. The Revised PSDAR assumes a real rate of return of two percent per year on the investments in the trust fund each and every year over the 44-year life of the trust with the earnings being reinvested in the trust to be used to cover the decommissioning costs.¹ However,

¹ The real rate of return is that return on an investment adjusted for inflation.

under Holtec's analysis, a significant amount of the earnings occurs during the first seven years of decommissioning when Holtec is incurring substantially all of its License Termination Costs. If there is a recession and/or significant inflation in the U.S. markets during that seven-year period, the return on the decommissioning trust fund assets could be significantly less than the two percent real rate of return that Holtec assumes during that period. Indeed, the return could be negative, meaning that Holtec's Pilgrim Cash Flow Analysis would create an overall shortfall in the trust fund well before the 44-year term of decommissioning.

11. I, Timothy Newhard, have read the above statement consisting of 5 pages, and I certify under penalty of perjury that the foregoing is true and correct. Executed on February 19, 2019.



TIMOTHY NEWHARD
Energy and Telecommunications Division
Energy and Environment Bureau
Massachusetts Attorney General's Office

TIMOTHY NEWHARD**Energy and Telecommunications Division
Massachusetts Office of the Attorney General****EXPERIENCE:**

1981-Present *Massachusetts Office of the Attorney General*, Boston MA

Financial Analyst - Regulated Industries Division

- Created policy and procedures to restructure the electric utility industry in Massachusetts including the deregulation of the electric generation business;
- Analyzed the depreciation and decommissioning costs of distribution, transmission, and generation plant, including nuclear power plants;
- Created policy and procedures to restructure the gas utility industry in Massachusetts including the deregulation of the gas supply business;
- Created policy and procedures to restructure the telephone industry in Massachusetts including the deregulation of the long distance and the local exchange businesses;
- Trained attorneys and other office staff on finance, accounting, economics, and ratemaking principles;
- Provided expert testimony on the costs of capital for investments in electric, gas, and telephone utility common stock;
- Provided expert testimony on various ratemaking principles and accounting issues that were being litigated before the Massachusetts Department of Public Utilities;
- Audited utilities' costs of providing service and advised attorneys on Generally Accepted Accounting Principles and regulatory accounting issues;
- Analyzed proposed utility financings for cost/benefit to ratepayers;
- Analyzed the economics of capital investment projects including nuclear power versus coal power and coal conversion of oil-fired plants;
- Analyzed and formed policy regarding utility mergers and acquisitions;
- Analyzed utilities' diversification efforts and reviewed methods of cost allocation and isolation of risk from the regulated utility;

EXPERIENCE (continued):

- Formed policies on various pricing, cost allocation, finance, accounting, and revenue requirement issues for case litigation and settlement;
- Prepared discovery, cross-examination, motions and briefs for proceedings before the Massachusetts Department of Public Utilities and the Federal Energy Regulatory Commission.

EDUCATION:

1989-1991 *Chartered Financial Analyst's Examination*

Successfully completed Levels One, Two and Three of the Chartered Financial Analyst Examinations

1985 *Certified Public Accountant's Examination*

Successfully completed all parts of the May 1985 Certified Public Accountant's Examination

1979-1981 *Northeastern University*

Received a Master's degree in Business Administration with concentration in Finance and Economics

1975-1979 *University of Maine at Orono*

Received a Bachelor of Science degree in Engineering Physics with honors;
Member of the Physics Honor Society

OTHER EDUCATION:

Attended Various Training Sessions including:

- Securitizing Stranded Utility Assets
- Price Cap Regulation
- Regulatory Policies and Ratemaking at Michigan State University

No. 19-1198

Federal Respondents' Combined Motion to Dismiss
and Response to Petitioner's Stay Motion

Exhibit 3

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)	
)	
Entergy Nuclear Generation Company)	
Entergy Nuclear Operations, Inc.)	Docket Nos.: 50-293 and 72-1044
)	License No.: DPR-35
Pilgrim Nuclear Power Station)	
EA-19-084)	

**ORDER APPROVING DIRECT AND INDIRECT TRANSFER OF LICENSE AND
CONFORMING AMENDMENT**

I.

Entergy Nuclear Operations, Inc. (ENOI) and Entergy Nuclear Generation Company (ENGCO) are the holders of Renewed Facility Operating License No. DPR-35, for the Pilgrim Nuclear Power Station (Pilgrim), and the general license for the Pilgrim Independent Spent Fuel Storage Installation (ISFSI). Pilgrim permanently ceased operations on May 31, 2019. Pursuant to Sections 50.82(a)(1)(i) and (a)(1)(ii) of Title 10 of the *Code of Federal Regulations* (10 CFR), by letter dated June 10, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19161A033), ENOI certified to the U.S. Nuclear Regulatory Commission (NRC) that it had permanently ceased operations at Pilgrim and that all fuel had been permanently removed from the reactor. Therefore, pursuant to 10 CFR 50.82(a)(2), operations at Pilgrim are no longer authorized under the license issued under 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," and ENOI and ENGCO are licensed to possess, but not use or operate, Pilgrim under Renewed Facility Operating License No. DPR-35, subject to the conditions specified therein. The Pilgrim site is located in the town of Plymouth, Massachusetts, in Plymouth County on Cape Cod Bay.

II.

By letter dated November 16, 2018 (ADAMS Accession No. ML18320A031), and as supplemented by letters dated November 16, 2018, April 17, 2019, and July 29, 2019 (ADAMS Accession Nos. ML18320A040, ML19109A177, and ML19210E470, respectively), ENOI, on behalf of itself and ENGC (to be known as Holtec Pilgrim, LLC), Holtec International (Holtec), and Holtec Decommissioning International, LLC (HDI) (together, the Applicants), requested that the NRC consent to the proposed direct and indirect transfer of the Pilgrim Renewed Facility Operating License No. DPR-35 and the general license for the Pilgrim ISFSI (collectively referred to as the facility). Specifically, the Applicants requested that the NRC consent to the direct transfer of ENOI's currently licensed authority (licensed operator for decommissioning) to HDI. In addition, the Applicants requested the indirect transfer of control of ENGC's ownership interests in the facility licenses to Holtec. The Applicants also requested that the NRC approve a conforming administrative amendment to the facility licenses to reflect the proposed direct transfer of the license from ENOI to HDI, as well as a planned name change from ENGC to Holtec Pilgrim. The Applicants submitted these direct and indirect transfer requests to the NRC for approval under Section 184, "Inalienability of Licenses," of the Atomic Energy Act of 1954, as amended (AEA); 10 CFR 50.80, "Transfer of Licenses"; 10 CFR 72.50, "Transfer of Licenses"; and 10 CFR 50.90, "Application for Amendment of License, Construction Permit, or Early Site Permit."

ENOI and ENGC intend to transfer the licensed possession, maintenance, and decommissioning authorities to HDI to implement expedited decommissioning at Pilgrim. Following approval and implementation of the proposed direct transfer of control of the license, HDI would assume licensed responsibility for Pilgrim through the direct transfer of ENOI's responsibility for licensed activities at Pilgrim to HDI. If the proposed indirect transfer of control is approved, ENGC would change its name to Holtec Pilgrim, LLC (Holtec Pilgrim), but

the same legal entity would continue to exist before and after the proposed transfer. Holtec Pilgrim would also enter into an operating agreement with HDI, which provides for HDI to act as Holtec Pilgrim's agent and for HDI to pay Holtec Pilgrim's costs of operation, including all decommissioning costs. Holtec Pilgrim would own the Pilgrim facility as well as its associated assets and real estate, including its nuclear decommissioning trust fund, title to spent nuclear fuel, and rights pursuant to the terms of its Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste with the U.S. Department of Energy. Upon the proposed license transfer, HDI would assume responsibility for compliance with the current licensing basis, including regulatory commitments that exist at the closing of the transaction between the Applicants, and would implement any changes under applicable regulatory requirements and practices. HDI's licensed activities will involve possessing and disposing of radioactive material, maintaining the facility in a safe condition (including handling, storing, controlling, and protecting the spent fuel), decommissioning and decontaminating the facility, and maintaining the ISFSI until it can be decommissioned, each in accordance with the license and NRC regulations.

The NRC published the notice of NRC consideration of the license transfer application in the *Federal Register* (FR) on January 31, 2019 (84 FR 816), and included an opportunity to comment, request a hearing, and petition for leave to intervene. On February 20, 2019 (ADAMS Accession No. ML19051A114), the Commonwealth of Massachusetts filed a request for a hearing and petition for leave to intervene, submitting two contentions challenging the proposed license transfer. On February 20, 2019 (ADAMS Accession No. ML19051A019), Pilgrim Watch also filed a request for a hearing and petition for leave to intervene with two contentions challenging the proposed license transfer. On April 24, 2019 (ADAMS Accession No. ML19114A519), the Commonwealth of Massachusetts filed a motion to supplement its motion to intervene and request for hearing with new information. On April 26, 2019 (ADAMS Accession No. ML19116A162) and May 9, 2019 (ADAMS Accession No. ML19129A473),

Pilgrim Watch filed motions to supplement its motion to intervene and request for hearing with new information. On July 16, 2019 (ADAMS Accession No. ML19197A330), Pilgrim Watch submitted a motion to file a new contention. On August 1, 2019 (ADAMS Accession No. ML19213A313), the Commonwealth of Massachusetts filed a motion to stay the license transfer proceeding for 90 days to permit the completion of settlement negotiations. These requests are currently pending before the Commission. The NRC also received public comments on this application for license transfer, which are summarized in the safety evaluation for this license transfer request.

The NRC staff notes, in Enclosure 2 of the application dated November 16, 2018, in support of the license transfer request, that the Applicants submitted a request for an exemption to 10 CFR 50.82(a)(8)(i)(A) to allow Holtec Pilgrim and HDI to make withdrawals from the Pilgrim decommissioning trust fund for spent fuel management and site restoration activities. The staff approved the exemption request on August 22, 2019 (ADAMS Accession No. ML19192A083). The NRC is issuing the exemption to Holtec Pilgrim and HDI simultaneously with this Order.

Pursuant to 10 CFR 50.80, no license for a production or utilization facility, or any right thereunder, shall be transferred, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to any person, unless the Commission gives its consent in writing. Upon review of the information in the application and other information before the Commission, and relying upon the representations and agreements contained in the application, the NRC staff has determined that Holtec Pilgrim and HDI are qualified to be the holders of the licenses, and that the direct and indirect transfer of the licenses, as described in the application, is otherwise consistent with the applicable provisions of law, regulations, and orders issued by the Commission pursuant thereto, subject to the condition set forth below.

Upon review of the application for a conforming amendment to the Pilgrim license to reflect the direct and indirect transfer of the Pilgrim licenses, the NRC staff determined the following:

- (1) The application for the proposed license amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended, and the Commission's rules and regulations set forth in 10 CFR Chapter I, "Nuclear Regulatory Commission."
- (2) There is reasonable assurance that the activities authorized by the proposed license amendment can be conducted without endangering public health and safety and that such activities will be conducted in compliance with the Commission's regulations.
- (3) The issuance of the proposed license amendment will not be inimical to the common defense and security or to public health and safety.
- (4) The issuance of the proposed license amendment is in accordance with 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," of the Commission's regulations, and all applicable requirements have been satisfied.

The findings set forth above are supported by an NRC safety evaluation dated August 22, 2019, which is available at ADAMS Accession No. ML19170A250.

III.

Accordingly, pursuant to Sections 161b, 161i, 161o, and 184 of the Atomic Energy Act of 1954, as amended; 42 U.S.C. Sections 2201(b), 2201(i), 2201(o), and 2234; and 10 CFR 50.80, 10 CFR 72.50, and 10 CFR 50.90, IT IS HEREBY ORDERED that the application for the direct and indirect transfer of the licenses, as described herein, is approved for Pilgrim and the ISFSI, subject to the following conditions:

- (1) Prior to the closing of the license transfer, Holtec Pilgrim and HDI shall provide the Directors of NRC's Office of Nuclear Material Safety and Safeguards (NMSS) and Office of Nuclear Reactor Regulation (NRR) satisfactory documentary evidence that they have obtained the appropriate amount of insurance required of a licensee under 10 CFR 140.11(a)(4) and 10 CFR 50.54(w) of the Commission's regulations.
- (2) The NRC staff's approval of this license transfer is subject to the Commission's authority to rescind, modify, or condition the approved transfer based on the outcome of any post-effectiveness hearing on the license transfer application. For example, if the Commission overturns the NRC staff's approval of this license transfer, this Order and any conforming amendments reflecting this transfer, will be rescinded, and the Applicants must return the plant ownership to the status quo ante and revert to the conditions existing before the transfer.

IT IS FURTHER ORDERED that, consistent with 10 CFR 2.1315(b), the license amendment that makes changes, as indicated in Enclosure 2 to the cover letter forwarding this Order, to conform the license to reflect the subject direct and indirect license transfer, is approved. The amendment shall be issued and made effective within 30 days of the date when the proposed direct and indirect license transfer action is completed.

IT IS FURTHER ORDERED that Holtec Pilgrim and HDI shall, at least 2 business days prior to closing, inform the Directors of NMSS and NRR in writing of the date of closing of the license transfer for Pilgrim and the ISFSI. Should the transfer of the license not be completed within 1 year of this Order's date of issuance, this Order shall become null and void; provided, however, that upon written application and for good cause shown, such date may be extended by order.

This Order is effective upon issuance.

For further details with respect to this Order, see the initial application dated November 16, 2018, as supplemented by letters dated November 16, 2018, April 17, and July 29, 2019, and the associated NRC safety evaluation dated August 22, 2019, which are available for public inspection at the Commission's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available documents are accessible electronically through ADAMS in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. Persons who encounter problems with ADAMS should contact the NRC's Public Document Room reference staff by telephone at 1-800-397-4209 or 301-415-4737 or by e-mail to pdr.resource@nrc.gov.

Dated at Rockville, Maryland this 22nd day of August, 2019.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Ho K. Nieh, Director,
Office of Nuclear Reactor Regulation.

No. 19-1198

Federal Respondents' Combined Motion to Dismiss
and Response to Petitioner's Stay Motion

Exhibit 4



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

August 27, 2019

Mr. Pierre Paul Oneid
Senior Vice President
and Chief Nuclear Officer
Holtec International
Krishna P. Singh Technology Campus
1 Holtec Blvd.
Camden NJ 08104

Ms. Pamela B. Cowan
Senior Vice President
and Chief Operating Officer
Holtec Decommissioning International, LLC
Krishna P. Singh Technology Campus
1 Holtec Blvd.
Camden NJ 08104

**SUBJECT: PILGRIM NUCLEAR POWER STATION – ISSUANCE OF AMENDMENT
NO. 249 RE: ORDER APPROVING DIRECT TRANSFER OF RENEWED
FACILITY OPERATING LICENSE AND INDEPENDENT SPENT FUEL
STORAGE INSTALLATION GENERAL LICENSE AND CONFORMING
AMENDMENT (EPID L-2018-LLO-0003)**

Dear Mr. Oneid and Ms. Cowan:

By Order dated August 22, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19170A265), the U.S. Nuclear Regulatory Commission (NRC) staff approved the direct and indirect transfer of Pilgrim Nuclear Power Station (Pilgrim) Renewed Facility Operating License No. DPR-35 and the general license for the Pilgrim Independent Spent Fuel Storage Installation (ISFSI). Specifically, the Order approved the direct transfer of Entergy Nuclear Operations, Inc.'s (ENOI) licensed authority (licensed operator for decommissioning) to Holtec Decommissioning International, LLC (HDI) and the indirect transfer of control of Entergy Nuclear Generation Company's (ENGCO) (to be known as Holtec Pilgrim, LLC) ownership interests in the facility licenses to Holtec International (Holtec).

The Order also approved a draft conforming administrative amendment to the facility license to reflect the proposed transfer. The amendment revises the Pilgrim Renewed Facility Operating License No. DPR-35 to reflect the direct transfer of the renewed operating license, and the general license for the ISFSI from ENOI to HDI, and the planned name change for ENGCO, from ENGCO to Holtec Pilgrim, LLC.

On August 22, 2019, HDI provided satisfactory documentary evidence (ADAMS Accession No. ML19234A357) to the Directors of NRC's Office of Nuclear Material Safety and Safeguards (NMSS) and Office of Nuclear Reactor Regulation (NRR) that Holtec Pilgrim and HDI have obtained the appropriate amount of insurance required of a licensee under Title 10 of the Code

P. Oneid and P. Bowan

-2-

of *Federal Regulations* (10 CFR) Section 140.11(a)(4) and 10 CFR 50.54(w) of the NRC's regulations.

In addition, on August 22, 2019, HDI informed the Directors of NMSS and NRR in writing of the expected date of closing (August 26, 2019) of the license transfer for Pilgrim and the ISFSI (ADAMS Accession No. ML19234A357). On August 26, 2019, ENOI informed the NRC that the transaction closed on August 26, 2019 (ADAMS Accession No. ML19239A037).

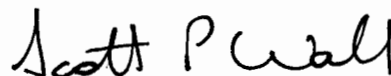
Accordingly, the NRC staff is issuing Amendment No. 249 to Renewed Facility Operating License No. DPR-35 for Pilgrim (Enclosure 1). A copy of the related Safety Evaluation (ADAMS Accession No. ML19170A250) was provided with the letter dated August 22, 2019 (ADAMS Accession No. ML19170A101), approving the license transfer and the conforming amendment. Notice of Issuance of the conforming amendment will be included in the NRC's biweekly *Federal Register* notice.

Enclosure 2 to this letter contains four signed original copies of Amendment No. 249 to Indemnity Agreement No B-37 for Holtec Pilgrim's, HDI's, and ENOI's signatures. We request you ensure that all parties sign the four originals and then return one of the signed originals to the NRC's Document Control Desk as proof of acceptance. Please keep the other signed original copies for each party's records.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions concerning this action, please contact me at (301) 415-2855 or by e-mail to Scott.Wall@nrc.gov.

Sincerely,



Scott P. Wall, Senior Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-293 and 72-15

Enclosures:

1. Amendment No. 249 to DPR-35
2. Four Signed Original Copies of Amendment No. 13 to Indemnity Amendment B-48

cc/without enclosures:

C. Bakken, ENOI
B. Sullivan, ENOI
Pilgrim Listserv

ENCLOSURE 1
Amendment No. 249 To DPR-35



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

HOLTEC DECOMMISSIONING INTERNATIONAL, LLC

HOLTEC PILGRIM, LLC

PILGRIM NUCLEAR POWER STATION

DOCKET NO. 50-293

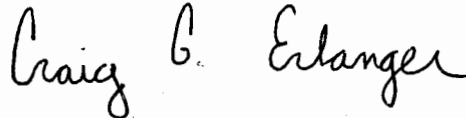
AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 249
Renewed License No. DPR-35

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by Entergy Nuclear Operations, Inc. (ENOI), on behalf of itself and Entergy Nuclear Generation Company (ENGCO) (to be known as Holtec Pilgrim, LLC), Holtec International (Holtec), and Holtec Decommissioning International, LLC (HDI), dated November 16, 2018, as supplemented by letters dated November 16, 2018; April 17, 2019; and July 29, 2019, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. 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;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, Renewed Facility Operating License No. DPR-35 is amended as indicated in the attachment to this license amendment.
3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days from that date.

FOR THE NUCLEAR REGULATORY COMMISSION



Craig G. Erlanger, Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed Facility
Operating License No. DPR-35,
Technical Specifications, and
Appendix B, Additional Conditions

Date of Issuance: August 27, 2019

ATTACHMENT TO LICENSE AMENDMENT NO. 249PILGRIM NUCLEAR POWER STATIONRENEWED FACILITY OPERATING LICENSE NO. DPR-35DOCKET NO. 50-293

Replace the following pages of the Renewed Facility Operating License; Appendix A, Technical Specifications; and Appendix B, Additional Conditions, with the attached revised pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Renewed Facility Operating License No. DPR-35REMOVE

1
2
3
4
5

INSERT

1
2
3
4
5

Appendix A, Technical SpecificationsREMOVE

Title page
4.0-1

INSERT

Title page
4.0-1

Appendix B, Additional ConditionsREMOVE

1

INSERT

1

HOLTEC PILGRIM, LLC
And HOLTEC DECOMMISSIONING INTERNATIONAL
(PILGRIM NUCLEAR POWER STATION)
DOCKET NO. 50-293
RENEWED FACILITY OPERATING LICENSE
Renewed License No. DPR-35

The Nuclear Regulatory Commission (the Commission) has found that:

- a. Except as stated in condition 5, construction of the Pilgrim Nuclear Power Station (the facility) has been substantially completed in conformity with the application, as amended, the Provisional Construction Permit No. CPPR-49, the provisions of the Atomic Energy Act of 1954, as amended (the Act), and the rules and regulations of the Commission as set forth in Title 10, Chapter 1, CFR; and
- b. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission; and
- c. There is reasonable assurance (i) that the activities authorized by the renewed operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission; and
- d. Holtec Pilgrim, LLC (Holtec Pilgrim) is financially qualified and Holtec Decommissioning International, LLC (HDI) is technically and financially qualified to engage in the activities authorized by this renewed operating license, in accordance with the rules and regulations of the Commission; and
- e. Holtec Pilgrim and HDI have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements" of the Commission's regulations; and
- f. The issuance of this renewed operating license will not be inimical to the common defense and security or to the health and safety of the public; and
- g. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs and considering available alternatives, the issuance of this renewed operating license (subject to the condition for protection of the environment set forth herein) is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements of said regulations have been satisfied; and
- h. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under

- 2 -

10 CFR 54.21(a)(1); and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by the renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations.

Facility Operating License No. DPR-35, dated June 8, 1972, issued to the Boston Edison Company (Boston Edison) is hereby amended in its entirety, pursuant to an Initial Decision dated September 13, 1972, by the Atomic Safety and Licensing Board, to read as follows:

1. This renewed operating license applies to the Pilgrim Nuclear Power Station, a single cycle, forced circulation, boiling water nuclear reactor and associated electric generating equipment (the facility), owned by Holtec Pilgrim and maintained and operated for decommissioning by HDI. The facility is located on the western shore of Cape Cod Bay in the town of Plymouth on the Holtec Pilgrim site in Plymouth County, Massachusetts, and is described in the "Final Safety Analysis Report," as supplemented and amended.
2. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - A. Pursuant to the Section 104b of the Atomic Energy Act of 1954, as amended (the Act) and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," a) Holtec Pilgrim to possess, and b) HDI to possess, maintain, and decommission the facility at the designated location on the Pilgrim site;
 - B. HDI, pursuant to the Act and 10 CFR 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
 - C. HDI, pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source or special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
 - D. HDI, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
 - E. HDI, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
3. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations; 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Sections 50.54 and 50.59 of 10 CFR Part 50 and Section 70.32 of 10 CFR Part 70; and is subject to all applicable

- 3 -

provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

A. Maximum Power Level

HDI is authorized to operate the facility at steady state power levels not to exceed 2028 megawatts thermal.

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 249, are hereby incorporated in the renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Records

HDI shall keep facility operating records in accordance with the requirements of the Technical Specifications.

D. Equalizer Valve Restriction - DELETED

E. Recirculation Loop Inoperable - DELETED

F. Fire Protection

HDI shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility and as approved in the SER dated December 21, 1978 as supplemented subject to the following provision:

HDI may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

G. Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Pilgrim Nuclear Power Station Physical Security, Training and Qualification, and Safeguards Contingency Plan, Revision 0" submitted by letter dated October 13, 2004, as supplemented by letter dated May 15, 2006.

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The licensee's CSP was approved by License Amendment No. 236, as supplemented by changes approved by Amendment Nos. 238, 241, 244, and 247.

- 4 -

H. Post-Accident Sampling System, NUREG-0737, Item II.B.3. and
Containment Atmospheric Monitoring System, NUREG-0737, Item II.F.1(6)

The licensee shall complete the installation of a post-accident sampling system and a containment atmospheric monitoring system as soon as practicable, but no later than June 30, 1985.

I. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 249, are hereby incorporated into this renewed operating license. HDI shall operate the facility in accordance with the Additional Conditions.

J. Conditions Related to the Sale and Transfer

(1) Deleted

(2) Deleted

(3) Deleted

(4) Deleted

- 5 -

- (5) The Decommissioning Trust agreement(s) shall be in a form which is acceptable to the NRC and shall provide, in addition to any other clauses, that:

- a) Investments in the securities or other obligations of Holtec Pilgrim, Holtec International, their affiliates, subsidiaries or associates, or their successors or assigns shall be prohibited. In addition, except for investments tied to market indexes or other non-nuclear sector mutual funds, investments in any entity owning one or more nuclear power plants is prohibited.
- b) The Director, Office of Nuclear Reactor Regulation, shall be given 30 days prior written notice of any material amendment to the trust agreement(s).

K. Mitigation Strategy License Condition

Develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

- (a) Fire fighting response strategy with the following elements:
 - 1. Pre-defined coordinated fire response strategy and guidance
 - 2. Assessment of mutual aid fire fighting assets
 - 3. Designated staging areas for equipment and materials
 - 4. Command and control
 - 5. Training of response personnel
- (b) Operations to mitigate fuel damage considering the following:
 - 1. Protection and use of personnel assets
 - 2. Communications
 - 3. Minimizing fire spread
 - 4. Procedures for implementing integrated fire response strategy
 - 5. Identification of readily-available pre-staged equipment
 - 6. Training on integrated fire response strategy
 - 7. Spent fuel pool mitigation measures
- (c) Actions to minimize release to include consideration of:
 - 1. Water spray scrubbing
 - 2. Dose to onsite responders

- L. The licensee shall implement and maintain all Actions required by Attachment 2 to NRC Order EA-06-137, issued June 20, 2006, except the last action that requires incorporation of the strategies into the site security plan, contingency plan, emergency plan and/or guard training and qualification plan, as appropriate.

- M. Upon Implementation of Amendment No. 231 adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air leakage required by SR 4.7.6.2.e in accordance with TS 5.5.8.c.(i), the assessment of CRE habitability as required by Specification 5.5.8.c.(ii), and the measurement

APPENDIX A
TO
FACILITY OPERATING LICENSE DPR-35
TECHNICAL SPECIFICATION AND BASES
FOR
PILGRIM NUCLEAR POWER STATION
PLYMOUTH, MASSACHUSETTS
Holtec Pilgrim, LLC and Holtec Decommissioning International, LLC

4.0 DESIGN FEATURES

4.1 Site Location

Pilgrim Nuclear Power Station is located on the western shore of Cape Cod Bay in the Town of Plymouth, Plymouth County, Massachusetts and contains approximately 517 acres owned by Holtec Pilgrim as shown on FSAR Figures 2.2-1 and 2.2-2. The site boundary is posted and a perimeter security fence provides a distinct security boundary for the protected area of the station.

The reactor (center line) is located approximately 1800 feet from the nearest property boundary.

4.2 Deleted

4.3 Fuel Storage

4.3.1 Criticality

4.3.1.1 The spent fuel storage racks are designed and shall be maintained with:

- a. Fuel assemblies having a maximum k-infinity of 1.32 for standard core geometry, calculated at the burn up of maximum bundle reactivity, and an average U-235 enrichment of 4.6 % averaged over the axial planar zone of highest average enrichment; and
- b. $K_{eff} \leq 0.95$ if fully flooded with unborated water, which includes an allowance for uncertainties as described in Section 10.3.5 of the FSAR.

(continued)

APPENDIX B

ADDITIONAL CONDITIONS

OPERATING LICENSE NO. DPR-35

Holtec Decommissioning International, LLC shall comply with the following conditions on the schedules noted below:

<u>Amendment Number</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
177	The licensee is authorized to relocate certain Technical Specifications requirements to licensee-controlled documents. Implementation of this amendment shall include relocation of various sections of the technical specifications to the appropriate documents as described in the licensee's application dated September 19, 1997, and in the staff's safety evaluation attached to this amendment.	The amendment shall be implemented within 30 days from July 31, 1998, except that the licensee shall have until the next scheduled Updated Final Safety Analysis Report (UFSAR) update to incorporate the UFSAR relocations.

ENCLOSURE 2
Four Original Signed Copies of Amendment No. 13
to Indemnity Amendment B-48



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

Docket Nos. 50-293
72-1044

AMENDMENT TO INDEMNITY AGREEMENT NO. B-48
AMENDMENT NO. 13

Effective August 26, 2019, Indemnity Agreement No. B-48 between Entergy Nuclear Generation Company, Entergy Nuclear Operations, Inc., and the United States Nuclear Regulatory Commission, dated November 20, 1970, as amended, is hereby further amended as follows:

The names "Entergy Nuclear Operations, Inc., and Entergy Nuclear Generation Company" are deleted wherever they appear in the indemnity agreement.

Item 1 of the Attachment to the indemnity agreement is modified by adding:

Item 1 – Licensee(s) Holtec Decommissioning International, LLC
Holtec Pilgrim, LLC

Address Krishna P. Singh Technology Campus
1 Holtec Boulevard
Camden, NJ 08104

In light of the above, Indemnity Agreement No. B-48 is between "Holtec Decommissioning International, LLC," "Holtec Pilgrim, LLC," and the United States Nuclear Regulatory Commission.

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Fred R. Miller", is written over a horizontal line.

Fred R. Miller, Chief
Financial Projects Branch
Division of Licensing Projects
Office of Nuclear Reactor Regulation

Accepted _____, 2019

By _____
Entergy Nuclear Operations, Inc.

By _____
Holtec Decommissioning International, LLC

By _____
Holtec Pilgrim, LLC



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

Docket Nos. 50-293
72-1044

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FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

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Fred R. Miller, Chief
Financial Projects Branch
Division of Licensing Projects
Office of Nuclear Reactor Regulation

Accepted _____, 2019

By _____
Entergy Nuclear Operations, Inc.

By _____
Holtec Decommissioning International, LLC

By _____
Holtec Pilgrim, LLC



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

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Fred R. Miller, Chief
Financial Projects Branch
Division of Licensing Projects
Office of Nuclear Reactor Regulation

Accepted _____, 2019

By _____
Entergy Nuclear Operations, Inc.

By _____
Holtec Decommissioning International, LLC

By _____
Holtec Pilgrim, LLC



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

Docket Nos. 50-293
72-1044

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FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Fred R. Miller", is written over a horizontal line.

Fred R. Miller, Chief
Financial Projects Branch
Division of Licensing Projects
Office of Nuclear Reactor Regulation

Accepted _____, 2019

By _____
Entergy Nuclear Operations, Inc.

By _____
Holtec Decommissioning International, LLC

By _____
Holtec Pilgrim, LLC

SUBJECT: PILGRIM NUCLEAR POWER STATION – ISSUANCE OF AMENDMENT NO. 249 RE: ORDER APPROVING DIRECT TRANSFER OF RENEWED FACILITY OPERATING LICENSE AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION GENERAL LICENSE AND CONFORMING AMENDMENT (EPID L-2018-LLO-0003) DATED AUGUST 27, 2019

DISTRIBUTION:

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 ASnyder, NMSS
 SBurnell, OPA
 DDodgon, OEDO
 ABilloch, OEDO
 VHuckabay, NRR
 RTurtil, NRR

ADAMS Accession No.: ML19235A050 EA-19-084

***by e-mail**

OFFICE	NRR/DORL/LPL3/PM	NRR/DORL/LSPB/LA	NMSS/DUWP/RDB/BC*	OGC – NLO*
NAME	SWall	JBurkhardt (LRonewicz for)	BWatson	A. Ghosh Naber
DATE	08/23/2019	08/23/2019	08/26/2019	08/26/2019
OFFICE	NRR/DORL/LPL3/BC(A)	NRR/DORL/D	NRR/DORL/LPL3-1/PM	
NAME	LRegner	CErlanger	SWall	
DATE	08/26/2019	08/26/2019	08/27/2019	

OFFICIAL RECORD COPY

No. 19-1198

Federal Respondents' Combined Motion to Dismiss
and Response to Petitioner's Stay Motion

Exhibit 5

NUCLEAR REGULATORY COMMISSION**Docket No. 50-293****Holtec Decommissioning International, LLC****Pilgrim Nuclear Power Station****Exemption****I. Background.**

By letter dated November 10, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15328A053), Entergy Nuclear Operations, Inc. (ENOI), submitted a notification to the U.S. Nuclear Regulatory Commission (NRC) indicating that it would permanently shut down Pilgrim Nuclear Power Station (Pilgrim) no later than June 1, 2019. By letter dated June 10, 2019 (ADAMS Accession No. ML19161A033), ENOI submitted to the NRC a certification in accordance with § 50.82(a)(1) of Title 10 of the *Code of Federal Regulations* (10 CFR), stating that Pilgrim permanently ceased power operations on May 31, 2019, and that as of June 9, 2019, all fuel had been permanently removed from the Pilgrim reactor vessel and placed in the spent fuel pool. Accordingly, pursuant to 10 CFR 50.82(a)(2), the Pilgrim renewed facility operating license no longer authorizes operation of the reactor or emplacement or retention of fuel in the reactor vessel. By letter dated November 16, 2018 (ADAMS Accession No. ML18320A036), ENOI submitted the updated Pilgrim spent fuel management plan (SFMP) pursuant to 10 CFR 50.54(bb) and preliminary decommissioning cost estimate (DCE). By letter dated November 16, 2018 (ADAMS Accession No. ML18320A034), as supplemented by letter dated January 9, 2019 (ADAMS Accession No. ML19015A020) and letter dated July 29, 2019 (ADAMS Accession No. ML19210E470), ENOI submitted a post-shutdown decommissioning activities report (PSDAR) and the site-specific DCE for Pilgrim.

By letter dated November 16, 2018 (ADAMS Accession No. ML18320A031), ENOI, on behalf of itself and Entergy Nuclear Generation Company (ENGCO) (to be known as Holtec Pilgrim, LLC (Holtec Pilgrim)), Holtec International (Holtec), and Holtec Decommissioning International (HDI) submitted a license transfer application (LTA) requesting that the NRC consent to the direct transfer of ENOI's operating authority to HDI and the indirect transfer of control of the Pilgrim Renewed Facility Operating License and the General License for the Pilgrim Independent Spent Fuel Storage Installation (ISFSI) to Holtec. By letter dated November 16, 2018 (ADAMS Accession No. ML18320A040), HDI submitted a "Notification of Revised Post-Shutdown Decommissioning Activities Report and Revised Site-Specific Decommissioning Cost Estimate for Pilgrim Nuclear Power Station" (revised PSDAR), to notify the NRC of changes to accelerate the schedule for the prompt decommissioning (i.e., the DECON method for decommissioning) of Pilgrim and unrestricted release of all portions of the site (excluding the ISFSI) within 8 years after the license transfer.

Under the proposed transfers, Holtec Pilgrim will own the Pilgrim nuclear facility and will have responsibility for Pilgrim as its licensed owner. Holtec Pilgrim will enter into an agreement for decommissioning services with HDI, with HDI acting as Holtec Pilgrim's agent and with Holtec Pilgrim paying for all HDI expenses related to decommissioning, spent fuel management, and site restoration. Accordingly, HDI will become the licensed operator for decommissioning.

II. Request/Action.

The requested exemption from 10 CFR 50.82(a)(8)(i)(A) would permit Holtec Pilgrim and HDI to use funds from the Pilgrim Decommissioning Trust Fund (DTF) for spent fuel management and site restoration activities in accordance with HDI's site-specific DCE for Pilgrim. HDI submitted a revised site-specific DCE for Pilgrim by letter dated November 16, 2018, as part of the revised PSDAR. A similar exemption request from Entergy

was approved by the NRC for Pilgrim by letter dated July 22, 2019 (ADAMS Accession No. ML19162A334).

The 10 CFR 50.82(a)(8)(i)(A) requirement restricts the use of DTF withdrawals to expenses for legitimate decommissioning activities consistent with the definition of decommissioning that appears in 10 CFR 50.2. The definition of “decommission” in 10 CFR 50.2 reads as follows:

to remove a facility or site safely from service and reduce residual radioactivity to a level that permits—

(1) Release of the property for unrestricted use and termination of the license;

or

(2) Release of the property under restricted conditions and termination of the license.

This definition does not include activities associated with spent fuel management or site restoration activities. Therefore, an exemption from 10 CFR 50.82(a)(8)(i)(A) is needed to allow Holtec Pilgrim and HDI to use funds from the DTF for spent fuel management and site restoration activities.

Similar to 10 CFR 50.82(a)(8)(i)(A), provisions of 10 CFR 50.75(h)(1)(iv) and (h)(2) dictate that with certain exceptions, disbursements from nuclear decommissioning trusts “are restricted to decommissioning expenses.” However, in accordance with 10 CFR 50.75(h)(5), these provisions do not apply to “any licensee that as of December 24, 2003, has existing license conditions relating to decommissioning trust agreements, so long as the licensee does not elect to amend those license conditions.” The operating license for Pilgrim included “existing license conditions relating to decommissioning trust agreements” on December 24, 2003, and as such, Pilgrim is exempt from the provisions of sections (h)(1) through (h)(3) of 10 CFR 50.75, pursuant to the terms of 10 CFR 50.75(h)(5).

III. Discussion.

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 50 (1) when the exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security; and (2) when any of the special circumstances listed in 10 CFR 50.12(a)(2) are present. These special circumstances include, among other things:

(a) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule; and

(b) Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated.

A. Authorized by Law

The requested exemption from 10 CFR 50.82(a)(8)(i)(A) would allow Holtec Pilgrim and HDI to use a portion of the funds from the DTF for spent fuel management and site restoration activities at Pilgrim in the same manner that withdrawals are made under 10 CFR 50.82(a)(8) for radiological decommissioning activities. As stated above, 10 CFR 50.12 allows the NRC to grant exemptions from the requirements of 10 CFR Part 50 when the exemptions are authorized by law. The NRC staff has determined, as explained further below, that there is reasonable assurance of adequate funding for radiological decommissioning because the Applicants' use of the DTF for activities associated with spent fuel management and site restoration will not negatively impact the availability of funding for radiological decommissioning. Accordingly, the exemption is authorized by law because granting the licensee's proposed exemption will not

result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations.

B. No Undue Risk to Public Health and Safety

The underlying purpose of 10 CFR 50.82(a)(8)(i)(A) is to provide reasonable assurance that adequate funds will be available for the radiological decommissioning of power reactors and license termination. As explained in further detail in Section D below, based on NRC staff's review of HDI's revised site-specific DCE and the staff's independent cash flow analysis contained in Attachment 1 to the NRC staff's safety evaluation for the associated LTA (ADAMS Accession No. ML19170A250), the NRC staff finds that the use of the Pilgrim DTF for spent fuel management and site restoration activities at Pilgrim will not adversely impact Holtec Pilgrim and HDI's ability to terminate the Pilgrim license (*i.e.*, complete radiological decommissioning) as planned, consistent with the schedule and costs contained in the revised PSDAR.

Furthermore, withdrawals from the DTF for spent fuel management and site restoration are still constrained by the provisions of 10 CFR 50.82(a)(8)(i)(B) – (C) and are reviewable under the annual reporting requirements of 10 CFR 50.82(a)(8)(v) – (vii).

There are no new accident precursors created by using the DTF in the proposed manner. Thus, the probability of postulated accidents is not increased. Also, based on the above, the consequences of postulated accidents are not increased. No changes are being made in the types or amounts of effluents that may be released offsite. There is no significant increase in occupational or public radiation exposure. Therefore, the requested exemption will not present an undue risk to the public health and safety.

C. Consistent with the Common Defense and Security

The requested exemption would allow Holtec Pilgrim and HDI to use funds from the Pilgrim DTF for spent fuel management and site restoration activities at Pilgrim. Spent fuel management under 10 CFR 50.54(bb) is an integral part of the planned decommissioning and

license termination process and will not adversely affect Holtec Pilgrim and HDI's ability to physically secure the site or protect special nuclear material. This change to enable the use of a portion of the funds from the DTF for spent fuel management and site restoration activities has no relation to security issues. Therefore, the common defense and security is not impacted by the requested exemption.

D. Special Circumstances

Special circumstances, in accordance with 10 CFR 50.12(a)(2)(ii), are present whenever application of the regulation in the particular circumstances is not necessary to achieve the underlying purpose of the regulation.

The underlying purpose of 10 CFR 50.82(a)(8)(i)(A), which restricts withdrawals from DTFs to expenses for radiological decommissioning activities, is to provide reasonable assurance that adequate funds will be available for radiological decommissioning of power reactors and license termination. Strict application of this requirement would prohibit the withdrawal of funds from the Pilgrim DTF for spent fuel management and site restoration activities, until final radiological decommissioning at Pilgrim has been completed.

ENOI's March 28, 2019, annual report (ADAMS Accession No. ML19087A318) on the status of decommissioning funding for Pilgrim reports a DTF balance of approximately \$1.028 billion as of December 31, 2018, and approximately \$1.043 billion as of February 28, 2019. The cash flow analysis in Table 1 of the November 16, 2018, application is based on a beginning DTF balance of \$1.030 billion (following closure of the equity sale in 2019).¹ HDI states that this beginning DTF balance reflects the fund value post-closure of the asset sale. Furthermore, the application states that the 2019 costs include estimated pre-closure and post-closure costs. In the NRC staff's analysis provided in its safety evaluation for

¹ The terms of the Equity Purchase and Sales Agreement describes the after-tax market value of the DTF must be no less than \$1.030 billion at time of transaction closing.

the LTA, the staff used the opening DTF balance of \$1.030 billion as the money available to cover radiological decommissioning, spent fuel management, and site restoration costs.

The analysis in the November 16, 2018 revised PSDAR, projects the total radiological decommissioning cost of Pilgrim to be approximately \$593 million in 2018 dollars which is lower than the 10 CFR 50.75(c) minimum formula amount of approximately \$633 million. The revised PSDAR estimated decommissioning costs are consistent with the estimated costs for radiological decommissioning, including ISFSI decommissioning costs, provided in the November 16, 2018 request for exemptions. However, the LTA and the exemption request did not provide any explanation for the difference in funding levels for radiological decommissioning costs between the site-specific DCE and the 10 CFR 50.75(c) minimum formula amount. Therefore, the staff sought supplemental information from the Applicants in a request for additional information (RAI) dated July 26, 2019, (ADAMS Accession No. ML19207B366). The RAI requested, among other things, that the Applicants provide justification for using a radiological decommissioning cost estimate value that is less than the 10 CFR 50.75(c) minimum formula amount.

On July 29, 2019 (ADAMS Accession No. ML19210E470), HDI provided its justification, stating that the HDI site-specific DCE is a more reliable and precise estimate of decommissioning cost because it is based on Pilgrim-specific plant data and historical information, actual site conditions, regulatory requirements applicable to Pilgrim, and actual pricing information, as compared to the 10 CFR 50.75(c) minimum formula amount, which is based on generic inputs. Additionally, in both the November 16, 2018 application and the July 29, 2019 supplement, HDI states that its site-specific DCE was reviewed against the estimates of costs associated with license termination (radiological decommissioning) in NUREG/CR-6174, "Revised Analyses of Decommissioning for the Reference Boiling Water Reactor Power Station" (ADAMS Accession No. ML14008A186), benchmarked against nine comparable decommissioning projects, and compared with costs from similar activities at seven

boiling water reactors. Accordingly, as part of its review, the NRC staff compared the Pilgrim site-specific radiological decommissioning costs with the estimated activities of the four periods associated with the DECON decommissioning method as outlined in NUREG/CR-6174:

- 1) Pre-shutdown planning/engineering and regulatory reviews,
- 2) Plant deactivation and preparation for storage,
- 3) A period of plant safe storage with concurrent operations in the spent fuel pool until the pool inventory is zero, and
- 4) Decontamination and dismantlement of the radioactive portions of the plant, leading to license termination.

The NRC staff also compared the Pilgrim site-specific estimated radiological decommissioning costs of approximately \$593 million with the site-specific costs of similar decommissioning projects.

Based on the review of the Pilgrim site-specific radiological decommissioning costs of approximately \$593 million, as compared to NUREG/CR-6174, the staff concludes that HDI's method for developing the Pilgrim site-specific radiological decommissioning cost estimate is reasonable. Further, when compared to radiological decommissioning costs associated with similar decommissioning projects, the staff finds that the HDI's Pilgrim site-specific radiological decommissioning costs of approximately \$593 million is reasonable.

As such, the staff used the value of approximately \$593 million for radiological decommissioning costs when it conducted its independent cash flow analysis. As allowed by 10 CFR 50.75(e)(1)(ii), the staff began its cost analysis using a 2% real rate of return on annual balances. In its application dated November 16, 2018, HDI states they also used a 2% real rate of return. However, in Table 1 of the November 16, 2018, application, HDI noted that the Year Ending DTF Balance is after-taxes. Therefore, in its cost analysis, the staff found that Table 1 reflects an actual annual real rate of return of 1.42%. The staff notes that this is conservative to the 2% annual real rate of return allowed by 10 CFR 50.75(e)(1)(ii). To be consistent in

validating HDI's site-specific DCE, the staff used the more conservative 1.42% annual real rate of return. The staff's independent cash flow analysis is contained in Attachment 1 to the NRC staff's safety evaluation for the associated LTA.

As noted above, HDI's site-specific DCE relies on estimated radiological decommissioning costs of approximately \$593 million, which is lower than the 10 CFR 50.75(c) minimum formula amount of approximately \$633 million. In its RAI dated July 26, 2019, the staff requested a justification for this lower amount and, in case the Applicants' failed to provide sufficient justification, the staff also requested that the Applicants provide a revised decommissioning cash flow analysis using the higher minimum formula amount of \$633,267,558. In Attachment 1 of the July 29, 2019, supplement, HDI provided the requested revised cash flow analysis. Although the staff completed a separate, independent cash flow analysis to validate this revised cash flow analysis, ultimately, as noted above, the staff determined that HDI's site-specific DCE, which uses \$592,553,000 for the estimated site-specific radiological decommissioning costs for Pilgrim, is reasonable and sufficiently justified.

Based on its evaluation above and the cash flow analysis contained in Attachment 1 to the NRC staff's safety evaluation for the associated LTA, the staff finds that the funds in the DTF are expected to be available and sufficient to cover the estimated costs of approximately \$593 million for the radiological decommissioning of the facility (including the ISFSI). Therefore, the NRC staff finds that HDI has provided reasonable assurance that adequate funds will be available for the radiological decommissioning of Pilgrim, even with the disbursement of funds from the DTF for spent fuel management and site restoration activities. Consequently, the NRC staff concludes that application of the 10 CFR 50.82(a)(8)(i)(A) requirement that funds from the DTF only be used for radiological decommissioning activities and not for spent fuel management and site restoration activities is not necessary to achieve the underlying purpose of the rule; thus, special circumstances are present supporting approval of the exemption request.

By granting the exemption to 10 CFR 50.82(a)(8)(i)(A), withdrawals from the DTF for spent fuel management and site restoration activities, consistent with the licensee's submittal dated November 16, 2018, are authorized. As stated previously, the NRC staff has determined that there are sufficient funds in the DTF to complete radiological decommissioning activities as well as to conduct spent fuel management and site restoration activities consistent with the revised PSDAR, DCE, SFMP, and the November 16, 2018, exemption request. Pursuant to the requirements in 10 CFR 50.82(a)(8)(v) and (vii), licensees are required to monitor and annually report to the NRC the status of the DTF and the licensee's funding for managing spent fuel. These reports provide the NRC staff with awareness of, and the ability to take action on, any actual or potential funding deficiencies. Additionally, 10 CFR 50.82(a)(8)(vi) requires that the annual financial assurance status report must include additional financial assurance to cover the estimated cost of completion if the sum of the balance of any remaining decommissioning funds, plus earnings on such funds calculated at not greater than a 2% real rate of return, together with the amount provided by other financial assurance methods being relied upon, does not cover the estimated cost to complete the decommissioning. The requested exemption would not allow the withdrawal of funds from the DTF for any other purpose that is not currently authorized in the regulations without prior approval from the NRC.

Special circumstances, in accordance with 10 CFR 50.12(a)(2)(iii), are present whenever compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated. HDI states that the DTF contains funds in excess of the estimated costs of radiological decommissioning and that these excess funds are needed for spent fuel management and site restoration activities. The NRC does not preclude the use of funds from the decommissioning trust in excess of those needed for radiological decommissioning for other purposes, such as spent fuel management or site restoration activities (see NRC Regulatory Issue Summary 2001-07, Rev. 1, "10 CFR 50.75 Reporting and

Recordkeeping for Decommissioning Planning,” dated January 8, 2009 (ADAMS Accession No. ML083440158), and Regulatory Guide 1.184, Revision 1, “Decommissioning of Nuclear Power Reactors,” dated October 2013 (ADAMS Accession No. ML13144A840)). Preventing access to those excess funds in the DTF because spent fuel management and site restoration activities are not associated with radiological decommissioning would create an unnecessary financial burden without any corresponding safety benefit. The adequacy of the DTF to cover the cost of activities associated with spent fuel management and site restoration, in addition to radiological decommissioning, is supported by the site-specific DCE. If the licensee cannot use its DTF for spent fuel management and site restoration activities, it would need to obtain additional funding that would not be recoverable from the DTF, or the licensee would have to modify its decommissioning approach and methods. The NRC staff concludes that either outcome would impose an unnecessary and undue burden significantly in excess of that contemplated when 10 CFR 50.82(a)(8)(i)(A) was adopted.

The underlying purposes of 10 CFR 50.82(a)(8)(i)(A) would be achieved by allowing Holtec Pilgrim and HDI to use a portion of the Pilgrim DTF for spent fuel management and site restoration activities, and compliance with the regulation would result in an undue hardship or other costs that are significantly in excess of those contemplated when the regulations were adopted. Thus, the special circumstances required by 10 CFR 50.12(a)(2)(ii) and 10 CFR 50.12(a)(2)(iii) exist and support the approval of the requested exemption.

E. Environmental Considerations

In accordance with 10 CFR 51.31(a), the Commission has determined that the granting of the exemption will not have a significant effect on the quality of the human environment (see Environmental Assessment and Finding of No Significant Impact published in the Federal Register on August 20, 2019 (84 FR 43186)).

IV. Conclusions.

In consideration of the above, the NRC staff finds that the proposed exemption confirms the adequacy of funding in the Pilgrim DTF to complete radiological decommissioning of the site and to terminate the license and also to cover estimated spent fuel management and site restoration activities. The NRC staff also finds that there is reasonable assurance that adequate funds are available in the DTF to complete all activities associated with radiological decommissioning.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), the exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. Also, special circumstances are present. Therefore, the Commission hereby grants Holtec Pilgrim and HDI an exemption from 10 CFR 50.82(a)(8)(i)(A) to allow them to use of a portion of the funds from the Pilgrim DTF for spent fuel management and site restoration activities consistent with the revised PSDAR and site-specific DCE dated November 16, 2018.

These exemptions are effective upon the NRC's issuance of a conforming license amendment reflecting HDI and Holtec Pilgrim as the licensees for Pilgrim, following NRC approval of the license transfer application and the Applicants' completion of the transaction.

Dated at Rockville, Maryland, this 22nd day of August, 2019.

For the Nuclear Regulatory Commission.

/RA/

Gregory F. Suber, Deputy Director,
Division of Operating Reactor Licensing,
Office of Nuclear Reactor Regulation.

No. 19-1198

Federal Respondents' Combined Motion to Dismiss
and Response to Petitioner's Stay Motion

Exhibit 6



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO REQUEST FOR DIRECT AND INDIRECT TRANSFERS OF CONTROL OF
RENEWED FACILITY OPERATING LICENSE NO. DPR-35 AND THE GENERAL LICENSE
FOR THE INDEPENDENT SPENT FUEL STORAGE INSTALLATION
FROM ENTERGY NUCLEAR GENERATION COMPANY AND
ENTERGY NUCLEAR OPERATIONS, INC.
TO HOLTEC PILGRIM, LLC AND HOLTEC DECOMMISSIONING INTERNATIONAL, LLC
PILGRIM NUCLEAR POWER STATION
DOCKET NOS. 50-293 AND 72-1044

1.0 INTRODUCTION

By application dated November 16, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18320A031), as supplemented by letters dated November 16, 2018, April 17, and July 29, 2019 (ADAMS Accession Nos. ML18320A040, ML19109A177, and ML19210E470, respectively), Entergy Nuclear Operations, Inc. (ENOI), on behalf of itself and Entergy Nuclear Generation Company (ENGCO) (to be known as Holtec Pilgrim, LLC), Holtec International (Holtec), and Holtec Decommissioning International, LLC (HDI), (hereinafter referred to as "Applicants"), requested that the U.S. Nuclear Regulatory Commission (NRC) consent to the following actions:

- (1) the direct transfer of ENOI's operating authority to HDI, and
- (2) the indirect transfer of control of the Renewed Facility Operating License No. DPR-35 for the Pilgrim Nuclear Power Station (Pilgrim), as well as the general license for the Pilgrim Independent Spent Fuel Storage Installation (ISFSI), to Holtec.

The Applicants also requested that the NRC approve a conforming administrative amendment to the facility licenses, to reflect the proposed direct transfer of the licenses from ENOI to HDI and the planned name change for ENGCO, from ENGCO to Holtec Pilgrim, LLC (Holtec Pilgrim). The supplements dated April 17, and July 29, 2019, provided additional information that clarified the application and did not expand the scope of the application as originally noticed in the *Federal Register* (FR) on January 31, 2019 (84 FR 816).

2.0 REGULATORY EVALUATION

2.1 Background

By letter dated November 10, 2015 (ADAMS Accession No. ML15328A053), ENOI notified the NRC of its intent to permanently cease operations at Pilgrim no later than June 1, 2019. By letter dated June 10, 2019 (ADAMS Accession No. ML19161A033), ENOI certified to the NRC that power operations ceased at Pilgrim on May 31, 2019, and fuel was permanently removed from the reactor vessel and placed in the spent fuel pool (SFP) on June 9, 2019. Pursuant to 10 CFR 50.82(a)(2), upon docketing of the certifications of permanent cessation of power operations and permanent removal of fuel from the reactor vessel in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 50.82(a)(1)(i) and (ii), and the license under 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," no longer authorizes operation of the reactor or emplacement or retention of fuel in the reactor vessel.

By letter dated November 16, 2018, ENOI submitted the Pilgrim Post-Shutdown Decommissioning Activities Report (PSDAR) (ADAMS Accession No. ML18320A034), which describes ENOI's plan to utilize the SAFSTOR method for decommissioning. In accordance with ENOI's SAFSTOR decommissioning approach, license termination would occur in 2079 and site restoration would be completed by 2080. The Applicants stated that the license transfer is being sought to effectuate a transaction under which Holtec Pilgrim will own the Pilgrim facility, including the ISFSI, pursuant to the terms of the Equity Purchase and Sale Agreement (EPSA), and HDI will assume the licensed responsibility for maintaining and decommissioning the facility, as the decommissioning operator of Pilgrim. The Applicants further stated that the transfer is desirable, because it will result in the prompt decommissioning of Pilgrim, consistent with the DECON method for decommissioning, as described in HDI's revised PSDAR, dated November 16, 2018 (ADAMS Accession No. ML18320A040). In accordance with HDI's DECON decommissioning approach, the release of all portions of the site other than the ISFSI will occur on an accelerated schedule, within approximately 8 years of the license transfer.

2.2 Pilgrim License Transfer and Equity Sale

According to the Applicants, approval of both the direct and indirect transfers is being sought pursuant to a transaction under which 100 percent of the equity interests in ENGCO will be transferred to Holtec based upon the terms of an EPSA, dated July 30, 2018 (the nonproprietary, publicly available version can be found as Attachment B at ADAMS Accession No. ML18320A031). Holtec Pilgrim will own the Pilgrim nuclear facility pursuant to the terms of the EPSA, and will have responsibility for Pilgrim as its licensed owner. Holtec Pilgrim will enter into an agreement for decommissioning services with HDI, with HDI acting as Holtec Pilgrim's agent and with Holtec Pilgrim paying for all HDI expenses related to decommissioning, spent fuel management, and site restoration. Accordingly, HDI will become the licensed operator for decommissioning.

HDI will contract with Comprehensive Decommissioning International, LLC (CDI), a company jointly formed and owned by Holtec and SNC-Lavalin Group, as the decommissioning general contractor. CDI will perform day-to-day activities at the site, including decommissioning activities, subject to HDI's direct oversight and control as the licensed decommissioning operator. Pursuant to the terms of the EPSA, closing of the transaction cannot occur until the satisfaction of several conditions, including ENOI's certification pursuant to 10 CFR 50.82(a)(1)(ii) that fuel has been permanently removed from the reactor vessel, which,

as noted above, was submitted to the NRC on June 10, 2019, shortly after permanent cessation of operations. Attachments 1A and 1B, "Corporate Structure - Pilgrim License Transfer and Equity Sale," of the application include simplified organization charts reflecting the current and post-transfer organizations.

2.3 Revised Post-Shutdown Decommissioning Activities Report

In support of its license transfer application, Holtec submitted to the NRC a revised PSDAR for Pilgrim on November 16, 2018 (ADAMS Accession No. ML18320A040), to notify the NRC of changes in the actions and schedules previously described in the ENOI PSDAR. The revised PSDAR updates the information previously provided by ENOI on November 16, 2018 (ADAMS Accession No. ML18320A034), as required by 10 CFR 50.82(a)(7). The revised PSDAR is based and contingent upon NRC approval of this license transfer, and ENGCO being acquired by Holtec, pursuant to the terms of the EPSA. On December 17, 2018 (ADAMS Accession No. ML18333A240), the NRC notified ENOI that the staff is treating the revised PSDAR submittal, dated November 16, 2018, as a supplement to the Pilgrim license transfer application, also dated November 16, 2018, until such time as the NRC makes a regulatory decision on the Pilgrim license transfer application. The NRC staff reviewed the revised PSDAR only to determine whether Holtec Pilgrim and HDI are financially and technically qualified to hold the license for Pilgrim and the general license for the Pilgrim ISFSI, as described in the application, and to engage in the proposed maintenance and decommissioning activities associated with the Pilgrim site.

2.4 Regulations and Guidance

As described in the application, the proposed transaction constitutes a direct transfer of authority to conduct licensed activities at Pilgrim to HDI and the indirect transfer of control of the Renewed Facility Operating License No. DPR-35 for Pilgrim as well as the general license for the Pilgrim ISFSI, to Holtec, which requires prior NRC approval. For transfers of control of a license, the NRC must find that the transfer of the license is otherwise consistent with the applicable provisions of the law, NRC regulations, and orders issued by the Commission.

The request for approval of the transfers of the Pilgrim licenses was made pursuant to 10 CFR 50.80(a), which states, in part:

No license for a production or utilization facility..., or any right thereunder, shall be transferred, assigned, or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to any person, unless the Commission gives its consent in writing.

In addition, the regulations in 10 CFR 50.80(b) and (c) apply. The regulation at 10 CFR 50.80(b) states, in part:

- (1) An application for transfer of a license shall include:
 - (i) For a construction permit or operating license under this part, as much of the information described in §§ 50.33 and 50.34 of this part with respect to the identity and technical and financial qualifications of the proposed transferee as would be required by those sections if the application were for an initial license.

In addition, 10 CFR 50.80(c) states, in part:

...the Commission will approve an application for the transfer of a license, if the Commission determines: (1) That the proposed transferee is qualified to be the holder of the license; and (2) That transfer of the license is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission pursuant thereto.

In 10 CFR 50.40, "Common Standards," the NRC states, in part:

In determining that a construction permit or operating license in this part...will be issued to an applicant, the Commission will be guided by the following considerations:

...

(b) The applicant for a construction permit, operating license...is technically and financially qualified to engage in the proposed activities in accordance with the regulations in this chapter.

In 10 CFR 50.34(b)(6), the NRC requires that applicants provide certain information on facility operation. It requires, in part, that the information provided by the applicants include the following:

(i) The applicant's organizational structure, allocations or responsibilities and authorities, and personnel qualification requirements.

(ii) Managerial and administrative controls to be used to assure safe operation.

In 10 CFR 50.34(b)(7), the NRC requires applicants for an operating license to provide the following information in the final safety analysis report:

The technical qualifications of the applicant to engage in the proposed activities in accordance with the regulations in this chapter.

With respect to the requested conforming amendment, 10 CFR 50.90, "Application for Amendment of License, Construction Permit, or Early Site Permit," states, in part:

Whenever a holder of a license, including a construction permit and operating license under this part..., desires to amend the license or permit, application for an amendment must be filed with the Commission..., fully describing the changes desired, and following as far as applicable, the form prescribed for original applications.

Furthermore, 10 CFR 2.1315 states the following, in part:

(a) 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 the license of an Independent Spent Fuel Storage Installation which does no more than conform the license to reflect the transfer action, involves respectively, "no significant hazards consideration"

- (b) Where administrative license amendments are necessary to reflect an approved transfer, such amendments will be included in the order that approves the transfer.

In 10 CFR 50.33(a) through (d), the NRC requires applicants to provide information including the name of the applicant, address of the applicant, description of the business or occupation, corporate structure of the applicant, citizenship of the applicant, and foreign ownership and control of the applicant, as applicable.

In addition, 10 CFR 50.33(f) states, in part:

Except for an electric utility applicant for a license to operate a utilization facility of the type described in § 50.21(b) or § 50.22, [each application shall state] information sufficient to demonstrate to the Commission the financial qualification of the applicant to carry out, in accordance with regulations in this chapter, the activities for which the permit or license is sought.

The NRC staff applies guidance in NUREG-1577, Revision 1, "Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance," issued February 1999 (ADAMS Accession No. ML013330264), to evaluate the financial qualifications of applicants to carry out the activities for which the permit or license is sought.

In 10 CFR 50.54(bb), the NRC requires, in part, that a licensee submit, for NRC review and preliminary approval, the program by which the licensee intends to manage and provide funding for the management of all irradiated fuel, also known as spent fuel, at the reactor following permanent cessation of operation of the reactor until title to the spent fuel and possession of the fuel is transferred to the Secretary of Energy for its ultimate disposal in a repository.

In accordance with 10 CFR 50.2, "Definitions," the term "decommission" means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits (1) release of the property for unrestricted use and termination of the license, or (2) release of the property under restricted conditions and termination of the license.

In 10 CFR 50.33(k)(1), the NRC requires that applicants provide information, in the form of a report, as described in 10 CFR 50.75, "Reporting and Recordkeeping for Decommissioning Planning," indicating how reasonable assurance will be provided that funds will be available to decommission the facility.

10 CFR 50.75 specifies how a licensee will provide reasonable assurance that funds will be available for the decommissioning process. Specifically, 10 CFR 50.75(b) requires that each power reactor applicant for an operating license submit a decommissioning report, as required by 10 CFR 50.33(k). 10 CFR 50.75(b) also requires decommissioning financial assurance be provided in an amount not less than the minimum formula amount in 50.75(c). In 10 CFR 50.75(e), the NRC includes the methods acceptable to the agency for providing decommissioning financial assurance. Finally, 10 CFR 50.75(h) provides additional requirements on the management of decommissioning trust funds (DTFs).

In 10 CFR 50.82(a)(8)(i), the NRC states that licensees may use DTFs under the following conditions:

- (A) The withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in § 50.2;
- (B) The expenditure would not reduce the value of the decommissioning trust below an amount necessary to place and maintain the reactor in a safe storage condition if unforeseen conditions or expenses arise and;
- (C) The withdrawals would not inhibit the ability of the licensee to complete funding of any shortfalls in the decommissioning trust needed to ensure the availability of funds to ultimately release the site and terminate the license.

In 10 CFR 50.82(a)(8)(v), the NRC requires power reactor licensees that have permanently ceased operations to provide to the NRC annually, by March 31, a decommissioning financial assurance status report.

In addition, 10 CFR 50.82(a)(8)(vii) provides, in part, for the licensee's annual submittal to the NRC, a report on the status of its funding for managing spent fuel.

In addressing foreign ownership, control, or domination (FOCD) issues, Section 103d of the Atomic Energy Act of 1954, as amended (AEA), provides for the following, in relevant part:

No license may be issued to...any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government.

The NRC's regulation in 10 CFR 50.38, "Ineligibility of Certain Applicants," is the regulatory provision that implements the FOCD provision of the AEA. Specifically, 10 CFR 50.38 states, in part:

[A]ny corporation, or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, shall be ineligible to apply for and obtain a license.

The NRC staff evaluates license transfer applications in a manner consistent with the guidance provided in the "Final Standard Review Plan on Foreign Ownership, Control, or Domination," as published in the *Federal Register* on September 28, 1999 (64 FR 52357), to determine whether the applicant is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government.

The NRC staff also reviews information that relates to nuclear onsite property damage insurance requirements under 10 CFR 50.54(w) and the Price-Anderson insurance and indemnity requirements under Section 170 of the AEA and 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements."

With respect to the transfer of control of a license for an ISFSI, 10 CFR 72.50(a) states as follows:

No license or any part included in a license issued under this part for an ISFSI or MRS [monitored retrievable storage facility] shall be transferred, assigned, or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to any person, unless the Commission gives its consent in writing.

The NRC staff considered the following regulatory guidance in its review of the proposed transfer:

- NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," Chapter 13, "Conduct of Operations," Section 13.1.1, "Management and Technical Support Organization," Revision 6, issued August 2016 (ADAMS Accession No. ML15005A449), provides guidance for the review of changes to the technical organization or personnel qualifications proposed as a result of an operating license transfer. Specifically, Section I.4, "Review of Operating License Transfers," states that the applicant for transfer of an operating license should provide a description of the organization to support plant operations, which should include (1) organizational charts of the corporate-level management and technical support organizations, emphasizing the changes to be made as a result of the transfer, (2) the relationship of the nuclear-oriented parts of the organization to the rest of the corporate organization, and (3) description of the specific provisions which have been made for uninterrupted technical support for operations.
- NUREG-0800, Chapter 13, Section 13.1.2–13.1.3, "Operating Organization," Revision 7, issued August 2017 (ADAMS Accession No. ML15007A296), provides guidance for the review of a changes to the operating organization proposed as a result of an operating license transfer.
- NUREG-1713, "Standard Review Plan for Decommissioning Cost Estimates for Nuclear Power Reactors" (ADAMS Accession No. ML043510113), provides a list of items for which decommissioning trust funds can be used. The bases for NUREG-1713 can be found in two NUREGs that reference decommissioning at a pressurized water reactor and a boiling water reactor: NUREG/CR-5884, "Revised Analyses of Decommissioning for the Reference Pressurized Water Reactor Power Station (ADAMS Accession No. ML14008A187) and NUREG/CR-6174, "Revised Analyses of Decommissioning for the Reference Boiling Water Reactor Power Station" (ADAMS Accession No. ML14008A186). The Pilgrim facility employed a General Electric boiling-water reactor nuclear steam supply system. As such, NUREG/CR-6174 applies.

3.0 TECHNICAL EVALUATION

3.1 Financial Qualifications

In complying with the general corporate information requirements of 10 CFR 50.33, "Contents of Applications; General Information" (sections a through d), the Applicants state that Holtec Pilgrim (the proposed licensed owner after the license transfer and equity sale) will be a direct, wholly owned subsidiary of Nuclear Asset Management Company, LLC, (NAMCo), which will be a direct, wholly owned subsidiary of Holtec Power, Inc. (Holtec Power). HDI will be a direct,

wholly owned subsidiary of Holtec Power, and Holtec Power will be a direct, wholly owned subsidiary of Holtec. CDI, although jointly formed and owned by Holtec and SNC-Lavalin Group as previously discussed, will be the decommissioning general manager after the license transfer and equity sale and will have no direct or indirect ownership or licensing authority at Pilgrim.

Figures 1 and 2 of the application dated November 16, 2018, reflect the corporate ownership structure, including identification of the licensed owner and licensed operator, before and after the license transfer and equity sale. In summary, upon completion of the license transfer and equity sale transaction, Holtec Pilgrim will be the licensed owner of Pilgrim and HDI will be the licensed operator of Pilgrim.

The general corporate information required by 10 CFR 50.33(d)(3) includes identification of principal officers and directors of the Applicants, including those of Holtec, Holtec Power, NAMCo, Holtec Pilgrim, and HDI. Holtec will be the ultimate parent company of the proposed licensed entities. Holtec is a privately held corporation and is controlled by its Board of Directors, all of whom are U.S. citizens. It is owned by its shareholders as follows: (1) The Great Banyan Trust, 36.33-percent ownership interest, and (2) Multi-Decades Trust, 63.67-percent ownership interest. Dr. Krishna Singh of Holtec controls these trusts. As previously noted, by letter dated November 10, 2015, in accordance with 10 CFR 50.82(a)(1)(i) and (ii), the current licensee, ENOI, stated that Pilgrim will permanently cease operations no later than June 1, 2019. On May 31, 2019, ENOI permanently ceased operations at Pilgrim. The current licensee, ENOI, submitted a letter dated June 10, 2019 (ADAMS Accession No. ML19161A033), certifying the permanent cessation of operations and permanent removal of fuel from the reactor vessel.

HDI (proposed licensed operator for decommissioning) will not be authorized under the facility license to operate or load fuel in the reactor pursuant to the terms of 10 CFR 50.82(a)(2) and will not conduct reactor operations contemplated by the financial qualifications provisions of 10 CFR 50.33(f)(2). Rather, all of HDI's licensed activities will involve possession of radioactive material in connection with maintaining the safe condition of the plant, radiological decommissioning of the Pilgrim site (including the ISFSI), license termination, and operational responsibilities associated with spent fuel management. Thus, following the proposed direct and indirect transfers, Holtec Pilgrim (the proposed licensed owner) will maintain the existing DTF and will be responsible for funding all the expenses associated with radiological decommissioning and operational costs for spent fuel management. Accordingly, as described in this safety evaluation, the NRC staff's review of HDI and Holtec Pilgrim's financial qualifications and decommissioning financial assurance pursuant to 10 CFR 50.33(f), 10 CFR 50.33(k)(1), 10 CFR 50.75, and 10 CFR 50.82(a), includes an analysis of the projected costs for decommissioning the facility and terminating the license, and managing spent fuel until the U.S. Department of Energy (DOE) takes title and possession of the fuel.

For a facility in decommissioning, a licensee is required to execute financial plans for spent fuel management under 10 CFR 50.54(bb) and report annually on the status of funding dedicated towards radiological decommissioning and spent fuel management under 10 CFR 50.82(a)(8)(v) to (vii).

As stated in the application, Holtec Pilgrim will provide the financial assurance required by 10 CFR 50.75, 10 CFR 50.82(a)(8)(vi), and 10 CFR 72.30(b) and (c) for decommissioning Pilgrim, including the ISFSI, using the prepayment method in accordance with 10 CFR 50.75(e)(1)(i) and 10 CFR 72.30, "Financial Assurance and Recordkeeping for Decommissioning." Holtec Pilgrim will retain the Pilgrim DTF, which, as of October 31, 2018,

contained \$1,051,722,466 (as documented in the Pilgrim Updated Spent Fuel Management Plan submitted by ENOI on November 16, 2018). Under the terms of the EPSA, the after-tax market value of the DTF must be no less than \$1.030 billion at closing, subject to an adjustment that will not impact Holtec Pilgrim's or HDI's financial qualifications, as discussed in the EPSA. Accordingly, staff's evaluation of the adequacy of the Applicants' financial qualifications considered the more conservative value of \$1.030 billion. Further analysis of the Applicants' decommissioning funding resources is provided in the next section.

3.2 Radiological Decommissioning

As noted above, pursuant to 10 CFR 50.2, "decommission" means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits (1) release of the property for unrestricted use and termination of the license, or (2) release of the property under restricted conditions and termination of the license. The existing DTF for Pilgrim was created in compliance with 10 CFR 50.75, and the funds within the trust were collected while the facility was operating. As described below, the NRC staff's review of decommissioning financial assurance assesses whether the Applicants have provided reasonable assurance that funds will be available to cover estimated costs for radiological decommissioning of Pilgrim and its ISFSI.

Separate from and in parallel with this application, the Applicants submitted the HDI revised PSDAR¹ reflecting plans for decommissioning and spent fuel management following the proposed transfer of the licenses. Specifically, the HDI revised PSDAR contains the following:

- a description of the planned decommissioning activities along with a schedule for their accomplishment;
- a discussion that provides the reasons for concluding that the environmental impacts associated with site-specific decommissioning activities will be bounded by previously issued environmental impact statements; and
- a site-specific decommissioning cost estimate (DCE), including the costs for projected spent fuel management, license termination, and site restoration.

The HDI revised PSDAR reflects HDI's plan to complete the immediate and accelerated decommissioning of the non-ISFSI portions of the Pilgrim site within approximately 8 years after the proposed transfer is approved. The ENOI PSDAR reflected the current licensee's decommissioning plan for Pilgrim to be completed by ENOI and ENGC within a 60-year period using the SAFSTOR method. The HDI revised PSDAR also contains the most recent decommissioning cost estimate and spent fuel management plans pursuant to 10 CFR 50.82, "Termination of License."

Under the HDI revised PSDAR, as compared to the ENOI PSDAR, the proposed change in decommissioning method from SAFSTOR to DECON results in an approximate 50-year acceleration of the site closure, and a site-specific DCE that reflects reductions in license termination costs of approximately \$595 million, and an increase in spent fuel management costs of approximately \$81 million.

¹ The staff notes that the NRC does not review the PSDAR for approval; however, for the purpose of this license transfer request, the staff relied on the revised PSDAR as a reference for the HDI's decommissioning plans and site-specific decommissioning cost estimate.

Following partial site release scheduled for 2025, and removal of spent fuel and GTCC waste from the site, HDI plans to decommission the ISFSI, terminate its NRC license, and release the site for unrestricted use in 2063. In accordance with the specific requirements of 10 CFR 72.30 for ISFSI decommissioning, the cost estimate for decommissioning the ISFSI reflects: 1) the cost of HDI's decommissioning contractor performing the decommissioning activities; 2) a contingency allowance of 25%; and 3) the cost of meeting the criteria for unrestricted use. The cost summary for decommissioning the ISFSI is presented in Appendix A of the HDI revised PSDAR.

As part of its review of the application, the staff reviewed the revised site-specific DCE for Pilgrim included with the HDI revised PSDAR to ensure that it contains the appropriate information. Pursuant to NUREG-1713, "Standard Review Plan for Decommissioning Cost Estimates for Nuclear Power Reactors," for decommissioning planning purposes, this information includes:

- A description of the decommissioning cost estimating methodology
- A description of the overall decommissioning project annual expenses
- A summary decommissioning cost estimate by major activity and phase
- A schedule of the major decommissioning activities
- A summary of the radiological D&D management with support staff levels
- An estimate of the radioactive waste volume

NUREG-1713 also states that if the amount of the site-specific cost estimate is less than the certification formula amount, a licensee must provide adequate justification for the difference.

In its evaluation of HDI's site-specific DCE, the staff noted that the DCE relies on estimated Pilgrim site-specific radiological decommissioning costs of \$592,553,000, which is lower than the 10 CFR 50.75(c) minimum formula amount of \$633,267,558, as reported by ENOI in its March 28, 2019, decommissioning funding status report (ADAMS Accession No. ML19087A318). The application dated November 16, 2018, states that the required DTF value at closing (\$1.030 billion) exceeds the minimum financial assurance required by 10 CFR 50.75(b)—which, in turn, requires decommissioning financial assurance be provided in an amount not less than the minimum formula amount in 50.75(c).² However, the application did not provide any explanation for the difference in funding levels for radiological decommissioning costs between the site-specific DCE and the 10 CFR 50.75(c) minimum formula amount. Therefore, the staff sought supplemental information from the Applicants in a request for additional information (RAI) dated July 26, 2019, (ADAMS Accession No. ML19207B366). The RAI requested, among other things, that the Applicants provide justification for using a site-specific radiological decommissioning cost estimate value of \$592,553,000 that is less than the 10 CFR 50.75(c) minimum formula amount of \$633,267,558.

By letter dated July 29, 2019 (ADAMS Accession No. ML19210E470), the Applicants provided their justification for using a total site-specific radiological decommissioning cost estimate value that is less than the minimum formula amount. Specifically, HDI stated that the HDI site-specific DCE is a more reliable and precise estimate of decommissioning costs because it is based on

² Throughout this SE, the staff refers to the amount specified in the table of minimum amounts in 10 CFR 50.75(c) as the 10 CFR 50.75(c) minimum formula amount.

Pilgrim site-specific plant data and historical information, actual site conditions, regulatory requirements applicable to Pilgrim, and actual pricing information, as compared to the 10 CFR 50.75(c) formula amount, which is based on generic inputs. Additionally, in both the November 16, 2018, application and the July 29, 2019, supplement, the Applicants stated that the HDI Pilgrim site-specific DCE was reviewed against the estimates of costs associated with license termination (radiological decommissioning) in NUREG/CR-6174, benchmarked against nine comparable decommissioning projects, and compared with costs for similar radioactive decommissioning activities at seven boiling water reactors.

As part of its review of the Applicants' justification for relying on estimated site-specific radiological decommissioning costs of \$592,553,000, the staff compared the Pilgrim site-specific radiological decommissioning costs with the estimated activities of the four periods associated with the DECON decommissioning method as outlined in NUREG/CR-6174, "Revised Analyses of Decommissioning for the Reference Boiling Water Reactor Power Station":

- 1) Pre-shutdown planning/engineering and regulatory reviews,
- 2) Plant deactivation and preparation for storage,
- 3) A period of plant safe storage with concurrent operations in the spent fuel pool until the pool inventory is zero, and
- 4) Decontamination and dismantlement of the radioactive portions of the plant, leading to license termination.

The NRC staff also compared the Pilgrim site-specific estimated radiological decommissioning costs of \$592,553,000 with the site-specific costs of comparable decommissioning projects.

Based on the review of the Pilgrim site-specific radiological decommissioning costs of \$592,553,000, as compared to NUREG/CR-6174, the staff concludes that the Applicants' method for developing the Pilgrim site-specific radiological decommissioning cost estimate is reasonable. Further, when compared to radiological decommissioning costs associated with similar decommissioning projects, the staff finds that the Applicants' Pilgrim site-specific radiological decommissioning costs of \$592,553,000 is reasonable.

Therefore, based on (1) its review of the Applicants' justification for relying on a site-specific DCE that is less than the minimum formula amount, (2) its review of the HDI site-specific DCE, in accordance with NUREG-1713 and NUREG/CR-6174, and (3) a comparison to the original ENOI PSDAR and site-specific DCE, the staff finds that HDI's site-specific DCE, which uses \$592,553,000 for the estimated site-specific radiological decommissioning costs for Pilgrim, is reasonable. As such, the staff used the value of \$592,553,000 for radiological decommissioning costs when it conducted its independent cash flow analysis, as described below.

3.2.1 Decommissioning Funding Assurance

ENOI's March 28, 2019, annual report on the status of decommissioning funding for Pilgrim reports a DTF balance of approximately \$1.028 billion as of December 31, 2018, and approximately \$1.043 billion as of February 28, 2019. The cash flow analysis in Table 1 of the November 16, 2018, application is based on a beginning DTF balance of \$1.030 billion

(following closure of the equity sale in 2019),³ as well as estimated costs for radiological decommissioning, spent fuel management, and site restoration of Pilgrim, all to be funded using the DTF. HDI stated that this beginning DTF balance reflects the fund value post-closure of the asset sale. Furthermore, the application states that the 2019 HDI costs include estimated pre-closure and post-closure costs.

In their application dated November 16, 2018, the Applicants provided financial projections for the duration of the Pilgrim decommissioning project, including the amount of the decommissioning trust funds in the DTF. The application also included a cash flow analysis that assumes a DTF balance of approximately \$1.030 billion, as well as estimated costs for radiological decommissioning, including the Pilgrim ISFSI (~\$592 million), spent fuel management (~\$501 million), and site restoration of Pilgrim (~\$40 million), all to be funded using the DTF. With respect to the adequacy of funding for the radiological decommissioning of Pilgrim and the Pilgrim ISFSI, the staff reviewed the application, including the HDI site-specific DCE for the facility, planned decommissioning activities, the opening DTF balance of \$1.030 billion, and projected trust growth. The staff used the opening DTF balance of \$1.030 billion based on the terms of the EPSA, which states that the after-tax market value of the DTF must be no less than \$1.030 billion at time of transaction closing. As discussed above, the staff used \$592,553,000 for radiological decommissioning costs. As allowed by 10 CFR 50.75(e)(1)(ii), the staff began its cost analysis using a 2% real-rate of return on annual balances. In its application dated November 16, 2018, the Applicants stated they also used a 2% real-rate of return. However, in Table 1 of the November 16, 2018, application, the Applicants noted that the Year Ending DTF Balance is after-taxes. Therefore, in its cost analysis, the staff found that Table 1 reflects an actual real-rate of return of 1.42%. The staff notes that this is conservative to the 2% annual real rate of return allowed by 10 CFR 50.75(e)(1)(ii). To be consistent in validating the HDI's site-specific DCE, the staff used the more conservative 1.42% real-rate of return. These considerations were included in the staff's independent cash flow analysis, which is contained in Attachment 1 to this safety evaluation.

As noted above, HDI's site-specific DCE relies on estimated radiological decommissioning costs of \$592,553,000, which is lower than the 10 CFR 50.75(c) minimum formula amount of \$633,267,558. In its RAI dated July 26, 2019, the staff requested a justification for this lower amount and, in case the Applicants' failed to provide sufficient justification, the staff also requested that the Applicants provide a revised decommissioning cash flow analysis using the minimum formula amount of \$633,267,558. In Attachment 1 of the July 29, 2019, supplement, the Applicants provided the requested revised cash flow analysis. Although the staff completed a separate, independent cash flow analysis to validate this revised cash flow analysis, ultimately, as noted above, the staff determined that HDI's site-specific DCE, which uses \$592,553,000 for the estimated site-specific radiological decommissioning costs for Pilgrim, is reasonable and sufficiently justified. Therefore, for purposes of this safety evaluation, the staff relies on the cash flow analysis in Attachment 1 to support its finding that the funds in the DTF are expected to be available and sufficient to cover the estimated costs of \$592,553,000 for the radiological decommissioning of the facility (including the ISFSI).

In Enclosure 2 of the November 16, 2018 application, pursuant to 10 CFR 50.12, "Specific exemptions," the Applicants requested an exemption from 10 CFR 50.82(a)(8)(i)(A) to allow Holtec Pilgrim and HDI to use of a portion of the funds from the Pilgrim DTF for the management of spent fuel and site restoration activities. The staff's analysis of this regulatory

³ The terms of the Equity Purchase and Sales Agreement describes the after-tax market value of the DTF must be no less than \$1.030 billion at time of transaction closing.

exemption (ADAMS Accession No. ML19192A083) was performed separate from this safety evaluation and, on August 22, 2019, the staff approved the exemption request. This exemption is being issued simultaneously with this license transfer; it will only apply to Holtec Pilgrim and HDI after the Applicants have completed the license transfer transaction and the NRC has issued the conforming amendment reflecting the license transfers.

In its review of the exemption, the NRC staff concluded that reasonable assurance exists that adequate funds will be available in the DTF to complete radiological decommissioning. The NRC staff considered its findings from its evaluation of the exemption in its analysis of this proposed license transfer, which supports the NRC staff's conclusion that the Applicants' use of the DTF for activities associated with spent fuel management and site restoration, will not negatively impact availability of funding for radiological decommissioning. The NRC staff's independent cash flow analysis, as contained in Attachment 1 to this safety evaluation, supports these findings.

3.2.2 Radiological Decommissioning Conclusion

Based on this review, in consideration of the above analysis and the NRC staff's independent cash flow analysis in the Attachment 1 to this safety evaluation, the NRC staff finds that the Applicants have provided reasonable assurance of obtaining the funds necessary to cover estimated costs for decommissioning Pilgrim and its ISFSI in accordance with the requirements of 10 CFR 50.33(f), 10 CFR 50.33(k)(1), 10 CFR 50.75, and 10 CFR 50.82(a).

3.3 Spent Fuel Management

After the closing of the proposed transaction, Holtec Pilgrim will continue to hold title to the spent nuclear fuel at Pilgrim and will continue to maintain the DOE Standard Contract, including all rights and obligations under that contract (see Section 3.5, "Standard Contract for Disposal of Spent Nuclear Fuel," of this safety evaluation, for further discussion on this topic).

With regard to spent fuel removal from the Pilgrim site, HDI indicated in its PSDAR that its plan for spent fuel removal is consistent with ENOI's previously submitted spent fuel management plan (ADAMS Accession No. ML18320A036), as approved by the NRC staff (ADAMS Accession No. ML19122A199), in that fuel is expected to be removed beginning in 2030. This plan remains dependent upon the DOE's ability to remove spent fuel from the site in a timely manner. According to the Pilgrim spent fuel management plan, assuming the DOE's generator allocation/receipt schedules are based upon the oldest fuel receiving the highest priority and that the DOE begins removing spent fuel from commercial facilities in 2025 with an annual capacity of 3,000 metric tons of uranium, spent fuel is projected to remain at the Pilgrim site for approximately 43 years after the termination of operations in 2019. Any delay in transfer of fuel to DOE or decrease in the rate of acceptance will correspondingly prolong the transfer process and result in spent fuel remaining at the site longer than anticipated. Accordingly, in Section 3.2 of Enclosure 1, "PNPS Site-Specific Decommissioning Cost Estimate," of HDI's Pilgrim PSDAR, HDI based its cost assumptions on fuel removal from Pilgrim in 2030 through 2062. The NRC staff accepts these assumptions with regard to the final disposition of Pilgrim spent fuel as DOE, according to the Nuclear Waste Policy Act of 1982, is authorized to ultimately enter into contracts with owners and generators of commercial spent nuclear fuel to begin taking title to (legal ownership of) spent nuclear fuel. Spent fuel storage operations will continue at the site, independent of decommissioning operations, until the transfer of the fuel to DOE is complete.

In its license transfer application, the Applicants provided their funding plan for spent fuel management costs, which included using excess DTFs for spent fuel management. The NRC staff discusses its review of the Applicants' funding plan for spent fuel management costs below.

3.3.1 Exemption To Use Decommissioning Trust Fund for Spent Fuel Management

Because Holtec Pilgrim and HDI will rely on the DTF to provide funding for spent fuel management and site restoration costs, the Applicants requested an exemption from 10 CFR 50.82(a)(8)(i)(A) to allow Holtec Pilgrim and HDI to use funds from the DTF for these activities. As mentioned above, the staff's analysis of this regulatory exemption was performed separate from this safety evaluation and, on August 22, 2019 (ADAMS Accession No. ML19192A083), the NRC approved this exemption for Holtec Pilgrim and HDI. This exemption is being issued simultaneously with this license transfer; it will only apply to Holtec Pilgrim and HDI after the Applicants have completed the license transfer transaction and the NRC has issued the conforming amendment reflecting the license transfers.

In its review of the exemption, the NRC staff concluded that reasonable assurance exists that adequate funds will be available in the DTF to complete radiological decommissioning. The NRC staff considered its findings from its evaluation of the exemption in its analysis of this proposed license transfer, which supports the NRC staff's conclusion that the use of the DTF for activities associated with spent fuel management will not negatively impact availability of funding for radiological decommissioning. The NRC staff's independent cash flow analysis, as shown in Attachment 1 to this safety evaluation, supports these findings.

Therefore, based on its evaluation, the staff finds that the use of excess funds from the DTF for spent fuel management provides a reasonable source of funding to cover the costs associated with spent fuel management.

3.3.2 Spent Fuel Management Conclusion

The staff reviewed estimates for major spent fuel management activities and funding requirements. Based on its review, the staff concludes that the activities and associated costs of the Pilgrim spent fuel management plan appear reasonable, and as noted above, the staff accepts the assumptions in the Pilgrim spent fuel management plan with regard to the final disposition of Pilgrim's spent fuel by DOE. In addition, the staff does not have new information that challenges the preliminary approval of the Pilgrim spent fuel management plan previously granted by the NRC.

Pertaining to the HDI's plan to fund spent fuel management activities from the DTF, the NRC staff reviewed HDI's site-specific DCE for the facility, planned decommissioning activities and funding associated with those activities, and use of the DTF for spent fuel management (about \$501 million) through 2063. With an opening DTF balance of \$1.030 billion (2019\$), and a projected DTF growth rate of 1.42-percent real rate of return on annual balances as assumed by HDI, the NRC staff finds that funds are expected to be available to pay for the radiological decommissioning of the facility (including the ISFSI), spent fuel management, and site restoration, as allowed by the approval of the regulatory exemption. Attachment 1 to this safety evaluation report contains the NRC staff's independent cash flow analysis.

The NRC staff notes that Holtec Pilgrim expects to recover spent fuel management costs it will incur from the DOE through litigation or settlement of its claims. Holtec Pilgrim did not declare

DOE reimbursements for consideration in this license application. As such, the staff did not factor in potential DOE reimbursements as part of its independent cash flow analysis.

Based on its review, and in consideration of the above analysis describing the Applicants' financial plans for managing spent fuel, the NRC staff finds that the Applicants have reasonable assurance of obtaining the funds necessary to cover estimated costs for spent fuel management in accordance with 10 CFR 50.33(f) and 10 CFR 50.54(bb).

3.4 Financial Qualifications Conclusion

As described above, the NRC staff reviewed the application in its evaluation of the Applicants' financial qualifications, funding for the decommissioning of Pilgrim, and funding for spent fuel management at Pilgrim. Based on its evaluation as described above and shown in its independent cash flow analysis in Attachment 1, the NRC staff concludes that the funds in the DTF are expected to be available and sufficient to cover the estimated costs for the radiological decommissioning of the facility (including the ISFSI). Therefore, the NRC staff concludes that the Applicants have provided reasonable assurance of obtaining the funds necessary to cover estimated costs for decommissioning Pilgrim in accordance with the requirements of 10 CFR 50.33(f), 10 CFR 50.33(k)(1), 10 CFR 50.75, and 10 CFR 50.82(a).

In addition, based on its evaluation above of the Applicants' funding plans for managing spent fuel, including the exemption to use DTF for spent fuel management, as supported by the NRC staff's independent cash flow analysis in Attachment 1, the NRC staff finds that the Applicants have provided reasonable assurance of obtaining the funds necessary to cover estimated costs for spent fuel management in accordance with the requirements of 10 CFR 50.33(f) and 10 CFR 50.54(bb).

Accordingly, considering the foregoing evaluation, the NRC staff finds that Holtec Pilgrim and HDI are financially qualified to hold the Pilgrim License No. DPR-35, and the general license for the Pilgrim ISFSI, as proposed.

3.5 Standard Contract for Disposal of Spent Nuclear Fuel

As stated by the Applicants, Holtec Pilgrim will continue to hold title to the spent nuclear fuel at Pilgrim and will continue to maintain the DOE Standard Contract, including all rights and obligations under that contract. The previous owner, Boston Edison Company, and the United States of America, represented by the DOE, entered into this Standard Contract, No. DE-CR01-83NE44368, dated June 17, 1983, to govern the disposal of the spent nuclear fuel generated at Pilgrim.

3.6 Antitrust Review

The AEA does not require or authorize antitrust reviews of post-operating license transfer applications (Kansas Gas and Electric Co., et al. (Wolf Creek Generating Station, Unit 1), CLI-99-19, 49 NRC 441 (1999)). This application postdates the issuance of the operating license for the unit under consideration in this safety evaluation and, therefore, no antitrust review is required or authorized.

3.7 Foreign Ownership, Control, or Domination

Sections 103d and 104d of the AEA prohibit the NRC from issuing a license for a nuclear power plant to “any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government.” The NRC’s regulation, 10 CFR 50.38, contains language to implement this prohibition.

According to the Applicants, Holtec is a privately held corporation and is controlled by its Board of Directors, all of whom are U.S. citizens. The directors are ultimately appointed by Holtec’s owners, who are trust companies organized in the State of Florida and are controlled by U.S. citizens. Holtec has been U.S.-owned since its inception in 1986 without any non-U.S. control or domination. Holtec Power, NAMCo, Holtec Pilgrim, and HDI are all directly or indirectly under Holtec’s control, and all of the directors and executive committee members as identified in Attachment C to the application are U.S. citizens. Although Holtec performs work in foreign countries, the contractual arrangements to provide products and services do not result in any FOCD of the Holtec organization or its subsidiaries or contracts. The activities conducted in foreign countries are ultimately controlled by U.S. citizens.

Further, the Applicants state that, as the licensed entity with possession of and responsibility for direct oversight, control, and decommissioning of Pilgrim, HDI will act for itself and on behalf of Holtec Pilgrim, as its agent. Neither HDI nor Holtec Pilgrim is acting as the agent or representative of any other entity in the proposed transfer of the licenses. The Applicants also state that CDI is jointly owned by HDI and SNC-Lavalin. HDI, as the majority owner of CDI, controls CDI. SNC-Lavalin, a company based in Montreal, Quebec, Canada, is a publicly traded company on the Toronto Stock Exchange. CDI’s role is defined as the decommissioning general contractor under a contract between HDI and CDI. CDI will not be the licensed owner or operator of the plant and will not have direct access to the Pilgrim DTFs. CDI will perform decommissioning activities pursuant to its contract with HDI, subject to HDI’s direct oversight and control. There is no prohibition against a company with foreign minority ownership performing licensed activities at U.S. nuclear reactors. Therefore, notwithstanding CDI’s foreign minority ownership and engagement as the decommissioning operations contractor, Holtec and the licensee entities proposed for Pilgrim will not be owned, controlled, or dominated by any foreign person.

Based on this information, the NRC staff finds that the direct and indirect transfer of the facility licenses to Holtec, Holtec Pilgrim, and HDI, as proposed in the application, does not raise any issues related to FOCD within the meaning of the AEA and NRC regulations. In light of the above and pursuant to Sections 103d and 104d of the AEA and 10 CFR 50.38, the NRC staff concludes that it does not know, or have reason to believe, that any of the Applicants or their respective owners will be owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, as a result of the direct or indirect license transfers.

3.8 Nuclear Insurance and Indemnity

Pursuant to the requirements of the Price-Anderson Act (Section 170 of the AEA) and the NRC’s implementing regulations in 10 CFR Part 140, the current indemnity agreement must be modified to reflect that, after the proposed license transfers take effect, Holtec Pilgrim (licensed owner) and HDI (licensed operator for decommissioning) will be the sole licensees for Pilgrim for purposes of decommissioning the site. Consistent with NRC practice, the NRC staff will require Holtec Pilgrim and HDI to provide and maintain onsite property insurance as specified in 10 CFR 50.54(w). Holtec Pilgrim and HDI are also required to provide evidence that they have

obtained the appropriate amount of insurance in accordance with 10 CFR 140.11(a)(4), which will be effective concurrent with the date of the license transfers and amended indemnity agreement. Therefore, the order approving the transfer will be conditioned as follows:

Prior to the closing of the license transfer, Holtec Pilgrim and HDI shall provide the Directors of NRC's Office of Nuclear Material Safety and Safeguards (NMSS) and Office of Nuclear Reactor Regulation (NRR) satisfactory documentary evidence that they have obtained the appropriate amount of insurance required of a licensee under 10 CFR 140.11(a)(4) and 10 CFR 50.54(w) of the Commission's regulations.

Based on the above, the NRC staff concludes that the proposed license transfer, as conditioned, satisfies the nuclear insurance and indemnity requirements of 10 CFR Part 140 and 10 CFR Part 50.

3.9 Financial Conclusions

Based on the foregoing, and subject to the conditions described herein, the NRC staff concludes that Holtec Pilgrim and HDI are financially qualified to be the holders of the Pilgrim license as owner and decommissioning operator, respectively, and of the general license for the Pilgrim ISFSI, as described in the application, and to engage in the proposed maintenance and decommissioning activities associated with the Pilgrim site. The NRC staff has concluded, based on the considerations discussed above, that (1) the proposed transferees are financially qualified to be the holders of license DPR-35 and (2) the proposed direct and indirect license transfers are otherwise consistent with the applicable provisions of law, regulations, and orders issued by the Commission pursuant thereto.

Additionally, the NRC staff finds that the Applicants have satisfied the NRC's decommissioning funding assurance requirements and the applicable onsite and offsite insurance requirements as conditioned. Further, the NRC staff finds that the Applicants are not owned, controlled, or dominated by a foreign entity.

3.10 Management and Technical Support Organization

By application dated November 16, 2018, the Applicants requested that the NRC consent to the license transfer for the purpose of implementing expedited decommissioning at Pilgrim. Figure 2 of the application shows the planned ownership structure following the proposed transfer. Holtec International is the ultimate parent company of Holtec Pilgrim and HDI. Holtec Power is a direct, wholly owned subsidiary of Holtec International. Holtec Pilgrim will be a direct, wholly owned subsidiary of NAMCo, which, in turn, is a direct, wholly owned subsidiary of Holtec Power. HDI is also a direct, wholly owned subsidiary of Holtec Power.

As stated in the application, following NRC approval of the transfers, 100 percent of the equity interests in ENGCO will be transferred to Holtec pursuant to the terms of an EPSA. ENGCO will change its name to Holtec Pilgrim, but the same legal entity will continue to exist before and after the proposed transfer. After the closing of the transaction and license transfer, ENGCO, renamed Holtec Pilgrim, will continue to own Pilgrim, as well as its associated assets and title to spent nuclear fuel. Upon closing the proposed transaction, HDI will assume licensed responsibility as the decommissioning operator of Pilgrim, and Holtec Pilgrim will assume licensed responsibility as the owner of Pilgrim. Holtec Pilgrim will enter into a decommissioning operator services agreement with HDI, which will provide for HDI to act as Holtec Pilgrim's

agent and for Holtec Pilgrim to pay HDI's costs for post-shutdown operations, including decommissioning, spent fuel management, and site restoration costs. HDI's licensed activities will involve possessing and disposing of radioactive material, maintaining the facility in a safe condition (including handling, storing, controlling, and maintaining the spent fuel), decommissioning and decontaminating the facility, and maintaining the ISFSI until it can be decommissioned.

The Applicants further stated, in Sections 2 and 5.C of Enclosure 1 to the application dated November 16, 2018, that HDI will contract with CDI, a company jointly formed and owned by Holtec and SNC-Lavalin, as the decommissioning general contractor, subject to HDI's direct oversight and control as the decommissioning licensed operator. HDI will become Pilgrim's licensed operator for decommissioning, and CDI will perform day-to-day licensed activities at the site, including decommissioning activities, pursuant to the Decommissioning General Contractor Agreement between HDI and CDI, subject to HDI's direct oversight and control as the decommissioning licensed operator. The application further specified that CDI will subcontract with industry vendors who have "demonstrated expertise in dismantlement and decommissioning in the nuclear field." HDI and CDI will select subcontractors using an industry vendor evaluation and selection vetting process, with key criteria for selection that include recent experience, technical capability to perform tasks, safety record, prior record of adherence to quality, and history of any adverse NRC notices, such as notices of violation or confirmatory action letters.

Section 5.B of the application described HDI's responsibilities as the licensed operator, to include the following:

- meeting all duties and obligations of the decommissioning operator licensee, including continuing compliance with the ISFSI Certificate of Compliance, licensing basis, and regulatory commitments and requirements
- possessing and disposing of radioactive material
- maintaining the facility in a safe condition, including the storage, control, and protection of the spent fuel in the pool and on the ISFSI, until the ISFSI is decommissioned
- establishing and implementing processes to ensure compliance with the licenses and NRC regulations, and retaining decisionmaking authority for any issues related to compliance with the licenses and NRC regulations
- overseeing the development and submittal of licensing actions required to support ongoing decommissioning activities
- making necessary modifications to the emergency preparedness and security plans and responses to NRC orders on security
- performing the functions necessary to fulfill the quality assurance requirements of the Pilgrim technical specifications (TS) and as specified in the Pilgrim Quality Assurance Program Manual (QAPM) in place at the time of license transfer
- providing oversight of CDI, including quality assurance, safety, and security

The application described HDI as being structured in a manner that is similar to the corporate organization that exists in many current nuclear industry utilities with a fleet of operating units, including the current Pilgrim structure. HDI plans to fill the onsite HDI position of Pilgrim Site Vice President with an incumbent Pilgrim senior manager.

The Applicants provided a combined organizational chart of the Pilgrim organization in Figure A-1 of the application, depicting the relationships between HDI as the decommissioning licensed operator and CDI and the decommissioning general contractor. Further, Sections 5.B and 5.C of Enclosure 1 to the application, dated November 16, 2018, contain information about the roles and responsibilities of HDI and CDI senior management, respectively. The planned HDI senior management organization will comprise Holtec personnel and will include the following:

- The HDI President and Chief Nuclear Officer (CNO) will report directly to the Holtec Executive Committee. The HDI President and CNO will be responsible for overseeing the safety, operation, and decommissioning of nuclear sites maintained by HDI, including Pilgrim.
- The HDI Vice President for Quality Assurance and Nuclear Oversight will report to the HDI President and CNO and will be responsible for providing quality assurance oversight for nuclear sites maintained by HDI, including Pilgrim. The responsibilities of the HDI Vice President for Quality Assurance and Nuclear Oversight include quality assurance oversight for the movement of fuel and the transportation of radioactive waste.
- The HDI Senior Vice President and Chief Operating Officer (COO) will report to the HDI President and CNO and will be responsible for providing oversight of the decommissioning activities performed by CDI at nuclear sites maintained by HDI, including fuel management, security, and emergency preparedness.
- The HDI Pilgrim Site Vice President will report to the HDI Senior Vice President and COO and will be responsible for providing day-to-day onsite leadership and direction of safe decommissioning activities at the site. In addition, the HDI Pilgrim Site Vice President will be responsible for assuring compliance with the licenses, including the TS, ISFSI Certificate of Compliance, and any other regulatory requirements and commitments.
- The HDI Vice President for Licensing will report to the HDI Senior Vice President and COO and will be responsible for providing licensing oversight for the decommissioning of nuclear sites maintained by HDI, including Pilgrim.
- The HDI Vice President for Technical Support will report to the HDI Senior Vice President and COO and will be responsible for providing technical support in the areas of health and safety, the environment, radiation protection, and decommissioning improvements at nuclear sites maintained by HDI, including Pilgrim.
- The CDI Pilgrim Decommissioning General Manager will report to the HDI Pilgrim Site Vice President; will lead the CDI team; and will maintain responsibility for overall management, performance, nuclear safety, quality assurance, and employee safety. The CDI Pilgrim Decommissioning General Manager will also report to the CDI Vice President for Corporate Operations, who, in turn, reports directly to the CDI Chief Executive Officer. The following organizations and their respective managers will be

reporting to the CDI Pilgrim Decommissioning General Manager: Decommissioning Deputy General Manager, Regulatory Affairs Manager, Spent Fuel Manager, Radiation Protection Manager, Waste Manager, Decommissioning Projects Manager, and Project Controls Manager. In addition, the incumbent ENOI Pilgrim Decommissioning Organization personnel at the time of license transfer who accept offers of employment will be integrated into the CDI site organization. They will continue to be located at Pilgrim and will include staff from the plant operations, emergency planning, and security organizations, with their roles and responsibilities based largely on their pretransfer roles and responsibilities. Incumbent staffing levels will be based on the permanent shutdown and defueled status of Pilgrim immediately before the license transfer.

By letter dated August 31, 2018 (ADAMS Accession No. ML18243A489), Exelon Generation Company, LLC (Exelon Generation), Oyster Creek Environmental Protection, LLC, and HDI submitted an application for order approving direct transfer of the operating license for Oyster Creek Nuclear Generating Station (Oyster Creek) from Exelon Generation to Oyster Creek Environmental Protection as the licensed owner and to HDI as the licensed decommissioning operator, for NRC's approval. The application stated that HDI, as licensed operator, will provide the overall management of decommissioning activities at Oyster Creek. The NRC approved the license transfer request for Oyster Creek on June 20, 2019 (ADAMS Accession No. ML19095A454). HDI became the licensed decommissioning operator for Oyster Creek on July 1, 2019 (ADAMS Accession No. ML19164A157).

During its review of the instant license transfer application, the NRC staff noted that, should the license transfer for Pilgrim be approved, HDI would be responsible for conducting licensed activities at two sites simultaneously (Pilgrim and Oyster Creek), including possession and disposition of radioactive material, maintenance of the facilities in a safe condition (including storage, control, and maintenance of the spent fuel), decommissioning and decontamination of the facilities, and maintenance of the ISFSIs until they can be decommissioned. Therefore, by letter dated March 21, 2019 (ADAMS Accession No. ML19086A349), the NRC staff submitted a request for additional information, asking that the Applicants provide information that justifies that HDI's management and technical support organization will have sufficient resources (i.e., corporate structure, management and technical support organization staff capacities, internal procedures) to conduct licensed activities at multiple sites. By letter dated April 17, 2019 (ADAMS Accession No. ML19109A177), HDI responded that it would use a fleet model to manage and conduct the decommissioning of its shutdown nuclear power plants. The fleet model will provide for efficiency by establishing standard processes, procedures, and approaches at the corporate level and at the decommissioning sites, similar to the model used by many operating fleets. In addition, each of HDI's decommissioning sites will have a dedicated leadership reporting to the same HDI corporate executive team and sufficient technical support from the CDI site organizations, mostly made up of experienced incumbents and supplemented as needed by additional Holtec and SNC-Lavalin resources. HDI further stated that it will implement governance procedures at both the HDI corporate level and at the site level. As decommissioning progresses at the sites, HDI will make changes to the site governance documents, with the overall goal of standardizing such documents across the HDI fleet as much as practicable, to allow efficiency in oversight and the application of site-specific lessons learned and operating experience to other sites in the HDI fleet. The executive leadership team at the HDI corporate level will oversee the safety, operation, and decommissioning at the Oyster Creek and Pilgrim sites. The executive leadership team consists of the HDI Vice President for Licensing, Treasurer and Nuclear Decommissioning Trust Fund Management, Vice President for Technical Support, Senior Vice President and COO, Vice President for Quality Assurance and Nuclear Oversight, President and CNO, and the Holtec

Executive Committee. HDI stated that the corporate HDI and CDI executive team is structured and staffed in anticipation of supporting planning and decommissioning activities at multiple sites, with the capacity to expand as needed.

The Applicants further stated in the application dated November 16, 2018, that CDI will support HDI's responsibility to maintain the facility in compliance with the licenses and NRC regulations by performing licensed activities and decommissioning safely and securely. HDI will retain ultimate decision-making authority and will provide direct governance and oversight of CDI's performance, thereby fulfilling its licensed responsibilities as the decommissioning licensed operator. Holtec senior staff will manage HDI to provide the requisite managerial capabilities and decision-making authority within the licensed organization, while a combination of Holtec and Atkins personnel (see below) who have commercial nuclear experience, including experience in spent fuel handling and decommissioning, will staff CDI. As of the transaction closing, CDI will become the employer of ENOI's employees in the Pilgrim decommissioning organization, with the exception of an incumbent senior manager at Pilgrim, who will be employed by HDI.

As stated in Sections 5.C, 5.D, and 8.D of Enclosure 1 to the letter, CDI will perform the day-to-day activities at the site to maintain compliance with the licenses and NRC regulations, subject to HDI's direct oversight and control as the licensed operator. After the closing of the transaction and license transfer, ENGEC, renamed Holtec Pilgrim, will continue to own Pilgrim and its associated assets that will be needed to maintain Pilgrim and the site in accordance with NRC requirements and the facility licenses. In addition to the structures and equipment, these assets will include the necessary books, records, safety and maintenance manuals, and engineering construction documents. HDI plans to adopt the current NRC-approved ENOI programs, procedures, and work instructions applicable to Pilgrim, and HDI and CDI will continue to work in accordance with those documents following the license transfer. The existing Pilgrim programs and procedures at the time of transfer, including the emergency plan, physical security and cybersecurity plans, fire protection program, radiological protection, certified fuel handler training, and quality assurance program will also be implemented by HDI and CDI, after license transfer. Upon closing of the transaction, HDI will assume authority and responsibility for the functions necessary to fulfill the quality assurance requirements of the Pilgrim TS and as specified in the Pilgrim QAPM in place at the time of license transfer. The Pilgrim QAPM will be added as an appendix to the Holtec quality assurance program and specified as applicable to the Pilgrim site.

3.10.1 Strategic Partner Experience and Expertise

As stated in the application, HDI will draw on the experience and expertise of its parent company, Holtec, and its contractor, CDI. Under HDI's direct oversight and control, CDI will perform the day-to-day licensed activities at the site, including decommissioning the plant, pursuant to a Decommissioning General Contractor Agreement between HDI and CDI. A combination of Holtec and SNC-Lavalin personnel who have commercial nuclear experience, including experience in spent fuel handling and decommissioning, will staff CDI. In addition to employees transferred from Holtec and SNC-Lavalin, CDI staffing will include ENOI's Pilgrim decommissioning organization incumbent staff who, at the time of the license transfer, will be integrated into the CDI decommissioning organization, in a manner consistent with their experience and previous positions at Pilgrim.

The information below briefly describes the experience and expertise of HDI and each of its strategic partners.

HDI is an indirect, wholly owned subsidiary of Holtec. The senior management of HDI comprises Holtec personnel. HDI is structured to serve as a fully resourced organization to directly oversee and manage licensed decommissioning operations and the dismantlement of a nuclear power plant that has ceased operation. HDI has the expertise to oversee all licensed activities following reactor defueling, including the transfer of spent fuel from the SFP to the ISFSI, security, and emergency preparedness.

Holtec has extensive experience in designing, manufacturing, and installing capital equipment, as well as providing services to operating commercial power plants. Holtec also possesses in-house capabilities to design, engineer, analyze, construct, and deploy spent fuel. Holtec possesses both technical resources and experience with nuclear decommissioning, spent fuel handling equipment, transport of nuclear fuel, and wet and dry spent fuel storage systems and components.

CDI is a company jointly owned by HDI and Kentz USA Inc., an SNC-Lavalin subsidiary. HDI owns the majority of CDI. As stated in the application, the CDI staff will comprise a combination of Holtec and SNC-Lavalin personnel who have commercial nuclear experience, including experience in spent fuel handling and decommissioning, and enhanced by the addition of incumbents from the ENOI Pilgrim decommissioning organization who will transition to HDI following the license transfer. The CDI staff will also include Atkins personnel who have decommissioning expertise and experience.

SNC-Lavalin, one of CDI's joint owners, is an engineering and construction company. SNC-Lavalin is also the current owner and the original equipment manufacturer of CANDU reactor technology. SNC-Lavalin acquired Atkins in July 2017, which then became a wholly owned subsidiary of SNC-Lavalin. Atkins is a design, engineering, and project management consultancy company, based in the United Kingdom. Atkins has been involved in the nuclear cleanup, decommissioning, and environmental remediation of nuclear waste storage sites since the late 1980s, working with Sellafield Ltd (formerly British Nuclear Fuels Limited) and managing the fleet of 22 Magnox reactors, through operation and into decommissioning in the United Kingdom. In addition, in 2016, Atkins acquired the EnergySolutions' Projects, Products, and Technology (PP&T) division, which was responsible for decommissioning the Zion Nuclear Generating Station. In addition, British Nuclear Fuels Limited, which is now owned by Atkins through its acquisition of EnergySolutions PP&T, had a significant role in the decommissioning of Big Rock Point, including the removal of the large components and reactor vessel.

3.10.2 Management and Technical Support Organization Conclusion

The Applicants provided organizational charts of the corporate-level management and technical support organizations and described changes they will make as a result of the proposed transfer. The Applicants described the relationship of the nuclear-oriented parts of the organization to the rest of the corporate organization. The Applicants explained that HDI will be using a fleet model approach to ensure that the management and technical support organizations will have sufficient resources to conduct licensed activities at multiple sites. The Applicants described several provisions that they will make for uninterrupted support of technical operations, which include (1) plans to adopt the current NRC-approved ENOI policies, programs, procedures, and work instructions applicable to Pilgrim, and to continue to work in accordance with those documents following the license transfer, and (2) plans for the decommissioning general contractor, CDI, to employ the ENOI Pilgrim decommissioning organization's incumbent staff.

Based on its review of the application for license transfer, the NRC staff finds that the Applicants provided reasonable assurance that the requirements of 10 CFR 50.34(b)(7) and 10 CFR 50.80 regarding the technical qualifications of HDI to engage in the proposed activities have been met. In addition, the staff finds that HDI is technically qualified to be the holder of the license and that the transfer of the license is otherwise consistent with the applicable provisions of law, regulations, and orders issued by the Commission. Accordingly, the staff concludes that the proposed HDI management and technical support organization will adequately support the proposed maintenance and decommissioning activities at Pilgrim.

3.11 Operating Organization

As stated in the application, CDI will establish a site decommissioning organization. CDI plans to employ ENOI's Pilgrim decommissioning organization personnel at the site at the time of the transaction closing, with the exception of one incumbent senior manager, who will become an HDI employee as the Site Vice President in charge of the site-based organization.

The application stated that staffing levels at the time of transfer will be fully compliant with the requirements of facility licenses and NRC regulations. HDI will ensure that vacated positions previously filled by incumbent employees are backfilled with qualified personnel, subject to a determination of the need to fill the position. In all cases, the individuals will be qualified for Pilgrim's programs and procedures.

The staffing and qualification requirements for the current operating organization at Pilgrim were previously found to be acceptable, as approved in Amendment No. 246 to Renewed Facility Operating License No. DPR-35 (ADAMS Accession No ML17066A130), consistent with the permanent cessation of operations and permanent removal of fuel from the reactor vessel. These staffing and qualification requirements detailed, among others, the responsibilities of a plant manager and a control room supervisor and stipulated that the minimum shift crew composition include at least one control room supervisor, who must be a Certified Fuel Handler, and one Non-Certified Operator. In addition, the facility staff qualifications are required to be maintained as stated in Section 5.3 of the TS. The proposed changes to the license as described in Enclosure 1, Attachment A, to the application letter do not affect the staffing or qualifications requirements as approved in Amendment No. 246.

In Enclosure 1, Attachment C, to the letter, the Applicants provided résumés of several key personnel with responsibilities of regulatory significance, including, among others, those of the HDI President and CNO, HDI Senior Vice President and COO, HDI Vice President for Quality Assurance and Nuclear Oversight, HDI Vice President for Licensing, and HDI Vice President for Technical Support. The résumés provided information on the experience of individuals who will occupy the aforementioned key positions in the areas of spent fuel management, decommissioning, nuclear safety, licensing and regulatory affairs, engineering and operations, and quality assurance.

3.11.1 Operating Organization Conclusion

Based on its evaluation, the NRC staff concludes that the onsite organization will adequately support the proposed maintenance and decommissioning activities at Pilgrim in accordance with 10 CFR 50.34(b)(7) that requires Applicants to provide the technical qualifications to engage in the proposed activities, and 10 CFR 50.80(c) that requires the proposed license transferee to be

qualified to be the holder of the license, and is otherwise consistent with the applicable provisions of law, regulations, and orders issued by the Commission.

3.12 Technical Qualification Conclusion

The Applicants have described the management and technical support organization, as well as the onsite operating organization, that would be responsible for the maintenance and decommissioning of Pilgrim after the proposed transfer of licensed authority to HDI. Based on its evaluation as described above, the NRC staff concludes that (1) HDI will have an acceptable management organization, (2) HDI will retain an onsite organization capable of safely conducting decommissioning activities, and (3) HDI will have the technically qualified resources and experience to support the safe maintenance and decommissioning of the Pilgrim site after the transfer of licensed authority from ENOI to HDI. The staff also determined that the Applicants provided reasonable assurance that they have met the relevant requirements of 10 CFR 50.34(b)(7) and 10 CFR 50.80 to engage in the proposed activities. Accordingly, in light of the foregoing evaluation, the staff finds that HDI is technically qualified to hold Pilgrim License No. DPR-35, and the general license for the Pilgrim ISFSI, as proposed.

3.13 Conforming License Amendment

3.13.1 Technical Specifications

The Applicants requested a conforming amendment to Renewed Facility Operating License No. DPR-35 for Pilgrim. The NRC staff notes that TS page 4.0-1 is in effect with an administrative change to Section 4.1, "Site Location," and recognizes that Section 4.3, "Fuel Storage," is also on the same TS page. On April 7, 2016, the NRC issued Generic Letter (GL) 2016-01, "Monitoring of Neutron-Absorbing Materials in Spent Fuel Pools" (ADAMS Accession No. ML16097A169), to address the degradation of neutron-absorbing materials in wet storage systems for reactor fuel at power and nonpower reactors. The generic letter requested that licensees provide information to allow the NRC staff to verify continued compliance through effective monitoring to identify and mitigate any degradation or deformation of neutron-absorbing materials credited for criticality control in SFPs.

By letter dated November 3, 2016 (ADAMS Accession No. ML16319A131), as supplemented by letter dated February 8, 2018 (ADAMS Accession No. ML18039A843), Entergy responded to GL 2016-01 for Pilgrim. In Entergy's response to GL 2016-01, as supplemented, the licensee also noted that 2016 testing on the Boraflex installed in the SFP at Pilgrim showed that some of the Boraflex was no longer bounded by the nuclear criticality safety analysis of record. This resulted in the licensee implementing corrective actions to manage Boraflex degradation and maintain subcriticality in the SFP. On September 26, 2018, the NRC issued a letter to Entergy on the closeout of GL 2016-01. The letter states that the NRC staff found interim corrective actions taken to be adequate and that the licensee-identified nonconservative TS would be resolved in accordance with Administrative Letter 98-10, "Dispositioning of Technical Specifications That Are Insufficient to Assure Plant Safety," dated December 29, 1998 (ADAMS Accession No. ML031110108). The GL 2016-01 issue affects TS Section 4.3.

By letter dated September 13, 2018 (ADAMS No. ML18260A085), as supplemented by letters dated January 10, February 8, and March 14, 2019 (ADAMS Nos. ML19016A135, ML19044A574, and ML19079A158), ENOI submitted a license amendment request to revise the Pilgrim Renewed Facility Operating License and associated TS to permanently defueled TS consistent with the permanent cessation of reactor operation and permanent defueling of the

reactor. The NRC staff is addressing changes to TS Section 4.3 as part of its review of the license amendment request, dated September 13, 2018.

As described in the November 16, 2018, application, HDI will assume licensed responsibility for Pilgrim through a direct transfer of ENOI's responsibility for licensed activities at Pilgrim to HDI. Upon closing of the proposed license transfer and issuance of the conforming amendment, HDI would assume responsibility for compliance with the current licensing basis, including regulatory commitments that exist at the closing of the transaction between the Applicants, and would implement any changes under applicable regulatory requirements and practices. Additionally, HDI would assume responsibility for open licensing actions previously submitted by ENOI. As stated previously, the NRC staff determined that HDI will be technically qualified to support the safe maintenance and decommissioning of the Pilgrim site; this includes issues pertaining to the SFP.

3.13.2 Final No Significant Hazards Consideration

Under the Atomic Energy Act of 1954, as amended, and the NRC's regulations, the NRC staff may issue and make an amendment immediately effective, notwithstanding the pendency before the Commission of a request for a hearing from any person, in advance of the holding and completion of any required hearing, where it has made a final determination that no significant hazards consideration is involved.

On February 20, 2019 (ADAMS Accession No. ML19051A114), the Commonwealth of Massachusetts filed a request for a hearing and petition for leave to intervene challenging the proposed license transfer. On February 20, 2019 (ADAMS Accession No. ML19051A019), Pilgrim Watch also filed a request for a hearing and petition for leave to challenging the proposed license transfer. On April 24, 2019 (ADAMS Accession No. ML19114A519), the Commonwealth of Massachusetts filed a motion to supplement its motion to intervene and request for hearing with new information. On April 26, 2019 (ADAMS Accession No. ML19116A162) and May 9, 2019 (ADAMS Accession No. ML19129A473), Pilgrim Watch filed motions to supplement its motion to intervene and request for hearing with new information. On July 16, 2019 (ADAMS Accession No. ML19197A330), Pilgrim Watch submitted a motion to file a new contention. On August 1, 2019 (ADAMS Accession No. ML19213A313), the Commonwealth of Massachusetts filed a motion to stay the license transfer proceeding for 90 days to permit the completion of settlement negotiations. These requests are currently pending before the Commission.

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. No contrary determination has been made with respect to this specific application.

3.13.3 Conforming License Amendment Conclusion

The conforming amendment requested by the Applicants does not affect TS Section 4.3. Further, the Applicants requested no physical or operational changes to the facility. The proposed conforming amendment only reflects the proposed license transfer action. The conforming amendment involves no safety question and is administrative in nature. Accordingly, the proposed amendment is acceptable.

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the proposed action will not endanger public health and safety, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to public health and safety.

3.14 Public Comments

The NRC published a notice of consideration of the approval of transfer of license and conforming amendment in the *Federal Register* on January 31, 2019 (84 FR 816). The notice included an opportunity to provide written comment and stated that the NRC would participate in a public meeting at Hotel 1620 in Plymouth, Massachusetts, on January 15, 2019. The announcement also noted that NRC personnel at the public meeting would take oral or written comments on the application for the proposed license transfer and the associated proposed HDI revised PSDAR. The public meeting record (ADAMS Accession No. ML19017A173) summarizes the oral comments; the presentation slides are available in ADAMS under Accession Nos. ML19008A494, ML19009A171, and ML19009A343; and a transcript of the public meeting is available at ADAMS Accession No. ML19029A025.

The NRC received written comments from the public in response to the FR notice. These comments are publicly available in ADAMS under Accession Nos. ML19032A073, ML19046A017, ML19057A188, ML19057A190, ML19057A569, ML19059A023, ML19060A227, ML19060A228, ML19064B330, ML19064B331, ML19064B332, ML19064B345, ML19065A180, ML19065A187, ML19065A188, ML19065A192, ML19065A193, ML19065A196, ML19065A198, ML19065A257, ML19065A258, ML19070A161, ML19070A162, ML19070A164, ML19070A165, ML19070A166, ML19070A167, ML19070A168, ML19070A169, ML19070A170, ML19070A171, ML19070A172, ML19070A174, ML19070A175, ML19070A176, ML19070A177, ML19072A312, ML19072A314.

Of the comments received, 4 were out of scope, 8 favored granting the license transfer, 18 supported the hearing requests from the Commonwealth of Massachusetts and Pilgrim Watch, and 9 expressed concerns.

Several questions and comments came from the general public at the public meeting. The themes of the written questions and comments overlapped with the oral questions and comments. The questions and comments had the following themes:

- concerns about the responsibility for any decommissioning fund shortfalls and the financial integrity or other qualifications of Holtec and its partners
- use of the site after decommissioning
- concerns about continued storage of spent fuel after decommissioning, transportation of spent fuel and radioactive waste, and the destination of spent fuel once it is removed from the site
- support for the timely review and approval of the license transfer and the immediate decommissioning of the facility
- concerns that support for the license transfer is partially based on proprietary information or incomplete cost information and that the work will have proper oversight

- concerns about the potential to turn parts of the facility to rubble and bury it on site
- concerns about unknown radiation ground contamination
- concerns about climate change affecting the site
- concerns about the reduction of emergency planning
- concerns about Entergy's current use of the DTF
- NRC communications and coordination on the review process
- concerns about the dry cask incident at San Onofre

The NRC staff reviewed the questions and comments made in the public meeting, along with the written comments received during the open comment period, and considered them in the review process. This safety evaluation of the license transfer request addresses the themes of the questions and comments that were within the scope of the NRC's review, such as concerns about decommissioning fund shortfalls and the financial integrity and the financial and technical qualifications of Holtec and its partners.

The NRC considers concerns about the environment to be out of scope for a license transfer review. Additionally, as indicated below, the NRC staff has determined that the license transfer and conforming amendment meet the eligibility criteria for the categorical exclusion set forth in 10 CFR 51.22(c)(21). Therefore, under 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the approval of the transfer application and conforming license amendment.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the NRC notified the Commonwealth of Massachusetts official of the proposed license transfer and draft conforming amendment on August 13 and 14, 2019 (ADAMS Accession No. ML19226A396). The Commonwealth official responded on August 21, 2019 with written comments (ADAMS Accession No. ML19233A278).

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 that does no more than conform the license to reflect the transfer action involves no significant hazards consideration. As noted above in Section 3.13.2, no contrary determination has been made with respect to this specific application. The NRC staff notes that the consultation requirements in 10 CFR 50.91(c) do not give the Commonwealth the right to veto or insist upon a postponement of the Commission's no significant hazards consideration determination. The staff has considered the comments and determined no changes to the safety evaluation were necessary.

At the request of the Commonwealth, the Commonwealth's comments are reprinted here in their entirety.

At the outset, the Commonwealth objects to the proposed action based on the procedural irregularities and disparate treatment of the Commonwealth during the consultation process as compared to other similarly situated states.

On August 13, 2019, the NRC State liaison contacted the Massachusetts Executive Office of Energy and Environmental Affairs with an offer for NRC Staff to consult with the Commonwealth about the Staff's proposed actions during a narrow two-hour window later that day. By mutual agreement, that "consultation" meeting was scheduled for 1:30 pm on August 13, 2019. Approximately twenty-minutes prior to that meeting, however, NRC Staff filed into the above referenced proceeding a "Notification," which informed the proceeding participants that Staff had notified the Commission that Staff intended to issue an order approving the license transfer application and Exemption Request on or about August 21, 2019.¹ Even though the NRC Staff had not yet consulted with the Commonwealth on that intended action, the Notification also indicated wrongly that NRC Staff had *already* notified the Commonwealth of the proposed actions. During the "consultation" call that *followed* the Notification's filing in the docket, the NRC Staff initially declined even to describe the contents of the just filed public Notification and refused to provide any details regarding what the anticipated approval Order would say or the findings underlying it in the anticipated SER. This conduct is not consistent with the NRC's state consultation requirements under, *inter alia*, 10 C.F.R. § 50.91 or the respect due to a sovereign state that has raised serious concerns about the requested actions. Nor is this a situation where an "emergency" would excuse the Staff's obligation to "make a good faith attempt to consult with" the Commonwealth of Massachusetts before NRC Staff or the Commission acts. See 10 C.F.R. § 50.91(b)(4).²

In another example of a lack of meaningful consultation, NRC Staff, on August 14, 2019, rejected the Commonwealth's request for fourteen days to provide to Staff the Commonwealth's written views on the proposed action prior to the Staff's taking any final action. Instead, in conflict with the state consultation process with the State of New Jersey for the recent transfer of Oyster Creek Nuclear Generating Station's operating license, NRC Staff informed the Commonwealth that it would have five business days (close of business on August 21, 2019) to offer any written comments to Staff on the intended actions. In support of its request for fourteen days, the Commonwealth had noted during its August 13 and August 14, 2019, conversations with NRC Staff that the Staff had just recently given the State of New Jersey fifteen days from the initial notification of the Staff's intention to approve the Oyster Creek license transfer application to submit an official written response to the Staff's proposed action.³

¹ Notification of Significant Licensing Action (NSLA) (ADAMS Accession No. ML19225D006).

² The NRC Staff also argued that its obligation to consult with the Commonwealth was limited to the *conforming amendment* sought by the Applicants. The NRC requirements, however, do not so narrowly limit the state consultation process, and, in any event, NRC Staff's approach would undermine the very purpose of state consultation to solicit state input about the *substance* of proposed NRC actions that have the potential to pose environmental and public health risks to the state and its residents.

³ *Safety Evaluation by the Office of Nuclear Reactor Regulation and Office of Nuclear Material Safety and Safeguards, Related Request for Direct Transfer of Control of Renewed Facility Operating License No. DPR-16 and the General License for the Independent Spent Fuel Storage Installation from Exelon Generation Company, LLC to*

Upon receipt of New Jersey's written response, NRC Staff then incorporated New Jersey's written response into the state consultation section of the SER.⁴ During its conversations with NRC Staff, the Commonwealth requested that it receive the same treatment as NRC Staff afforded to New Jersey just over two months earlier. After NRC Staff rejected, on August 14, 2019, the Commonwealth's request for fourteen days to submit a written response, the Commonwealth asked NRC Staff whether there were extenuating circumstances that caused the Staff to give New Jersey fifteen days to respond but to reject the Commonwealth's request to be treated similarly. NRC Staff was unable to provide any justification and could not explain why it gave New Jersey fifteen days to respond. Instead, Staff said its internal guidance—Procedures for Handling License Transfers—dictates that Staff is to provide states five business days to respond after initial consultation. Those procedures, however, are silent on the amount of time NRC Staff should give a host state to submit comments on the Staff's intention to approve a license transfer application.⁵ NRC Staff's failure to follow what appears to be the NRC's normal state consultation process and its unexplained disparate treatment of the Commonwealth as compared to the State of New Jersey renders its planned action arbitrary and capricious.

Given the NRC Staff's refusal to give the Commonwealth a reasonable amount of time to respond during the consultation process (again, at least the same amount of time it gave New Jersey), the Commonwealth incorporates by reference, as if fully set forth here, the contentions, arguments, and issues it has raised in its yet-to-be acted on Petition for Leave to Intervene and Hearing Request, Docket Nos. 50-293 & 72-1044, filed on February 20, 2019 (Petition); Reply in Support of Petition for Leave to Intervene and Hearing Request, Docket Nos. 50-293 & 72-1044, filed on April 1, 2019 (Reply); and Motion of the Commonwealth of Massachusetts to Supplement Its Petition with New Information, Docket Nos. 50-293 & 72-1044, filed on April 24, 2019. Consistent with the concerns raised in those filings, there are at least two substantive issues that require the NRC Staff to, at a minimum, re-evaluate its plan to approve the

Oyster Creek Environmental Protection, LLC and Holtec Decommissioning International, LLC (Oyster Creek Nuclear Generating Station) (Jun. 20, 2019), Docket Nos. 50-219 & 72-15, at 20 (ADAMS Accession No. ML19095A457).

⁴ *Id.* at 20.

⁵ See generally U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, *NRR Office Instruction, Change Notice: Procedures for Handling License Transfers*, LIC-107, Revision 2 (Jun. 5, 2017) (hereinafter, *Procedures for Handling License Transfers*). Another Staff action in this matter was, however, inconsistent with the actual terms of that license transfer processing Instruction. While the Instruction provides that NRC Staff must give the *Commission* at least "5 work days" to object to issuance of the Staff approval order before it is issued, *id.* at 13, the Staff sent a notice to Entergy on August 15, 2019, which stated that Pilgrim's license had *already* been "issued to [Holtec]." Encl. at 2 *in* Ltr. from Scott P. Wall, Sr. Project Manager, NRC Plan Licensing Branch III, to Brian R. Sullivan, Site Vice President, Entergy (Aug. 15, 2019) (ADAMS Accession No. ML19191A006). That notice and its statement that the license had already been "issued" to Holtec was then published in the Federal Register on August 20, 2019. 84 Fed. Reg. 43,186, 43,186 col.3 (Aug. 20, 2019).

license transfer application and Exemption Request if not deny them outright. These two issues go to the heart of this matter—Holtec’s ability to satisfy the NRC’s financial and technical requirements for license transfer approval—and should make any regulator take the time to seriously question and evaluate the veracity of Holtec’s assertions, including awaiting the completion of an adjudicatory hearing on them to ensure that all issues have been fully aired and considered.

First, Holtec’s response to the NRC Staff’s July 26, 2019 Request for Additional Information (RAI) belies any claim that Holtec has satisfied the NRC’s financial qualification and assurance requirements for either the license transfer or the Exemption Request. In fact, after Holtec’s misleading response to that request is corrected, Holtec’s cash-flow analysis shows that Holtec will suffer a funding shortfall of more than \$50 million. In its original cash-flow analysis, Holtec claimed a year ending decommissioning trust fund balance of \$3.615 million for the year 2063 (projected end of project life).⁶ In developing this analysis, Holtec used a license termination cost of \$592,553,322.⁷ In response to NRC Staff’s RAI, Holtec completed a revised cash flow analysis based on the Minimum Formula Amount (MFA), as required by 10 C.F.R. § 50.75(c).⁸ The revised MFA-based cash flow analysis increased the license termination cost by \$40,714,236 to a total of \$633,267,558.⁹ Yet, despite the \$40 million plus cost increase, and a claim that it used the same assumptions in its revised analysis that it used in its original analysis, Holtec’s recent analysis provides a positive year-end trust balance of \$11,595,232.¹⁰ In other words, despite increasing its costs, Holtec’s analysis results, inexplicably in a higher positive year-end balance. To derive this result in its revised analysis, Holtec appears to have excluded the tax impact on each year-end-earnings-balance that it accounted for in its original cash-flow analysis despite stating to NRC Staff that it included the tax impact.¹¹ When taxes are accounted for in the revised MFA-based cash-flow analysis, the analysis actually shows a funding shortfall of more than \$50 million.

Second, the misleading nature of Holtec’s RAI response appears to be part of a troubling pattern of behavior that raises serious questions about Holtec’s veracity, judgment, and technical qualifications to decommission a nuclear power

⁶ *Revised Post-Shutdown Decommissioning Activities Report and Revised Site-Specific Decommissioning Cost Estimate for Pilgrim Nuclear Power Station*, Enclosure 1, at 47 (Nov. 16, 2018) (ADAMS Accession No. ML18320A040).

⁷ *Id.*

⁸ *Response to NRC Request for Additional Information*, at E-4-5 and Enclosure (Jul. 29, 2019) (ADAMS Accession No. ML19210E470).

⁹ *Id.* Holtec stated that its lower license termination cost estimate is more accurate because it includes site-specific data to Pilgrim, but, as NRC Staff explained in its RAI, Holtec’s cash-flow analysis does not comply with the NRC’s regulations and, for that reason, cannot be “more accurate.” And Holtec’s attack on that regulation, of course, constitutes an improper challenge to an NRC regulation. Moreover, a large Boiling Water Reactor, such as Pilgrim, has never been decommissioned in the United States. Additionally, as stated in the Commonwealth’s Petition and Reply, Holtec has not provided adequate details as to how its costs are realistic or related to Pilgrim.

¹⁰ *Id.*

¹¹ *Id.*

reactor. In October 2010, for example, the Tennessee Valley Authority (TVA) temporarily debarred Holtec and required the company to pay a \$2 million “administrative fee” based on the results of a criminal investigation into an alleged Holtec contract-bribery scheme.¹² The TVA employee, who, according to the TVA Inspector General’s Report, received \$54,000 in undisclosed payments funneled to the employee from Holtec to help Holtec secure a contract with TVA, pleaded guilty in 2007.¹³ In a recorded telephone conversation between that employee and an individual who appears in the report to be a Holtec official, during which the employee asked the Holtec official for advice on how to handle the TVA Inspector General’s inquiry, the Holtec official informed the employee to tell the investigators that the employee did not “know anything about [the payments], other than the fact that your wife was in the business of doing consulting services and it was a payment retainer for that work.”¹⁴ More recently, New Jersey’s Economic Development Authority (EDA) froze a \$260 million tax break secured by Holtec when it discovered that Holtec had falsely sworn on its tax break application that the company had never “been barred from doing business with a state or federal agency,”¹⁵ even though, as noted above, TVA temporarily debarred Holtec in October 2010. On April 24, 2019, the NRC itself cited Holtec for two violations of NRC regulatory requirements.¹⁶ And, Holtec’s business “partner” for its nuclear decommissioning venture, SNC-Lavalin, which Holtec has leaned on heavily to support its claimed technical capacity to undertake multiple complex decommissioning projects at the same time,¹⁷ faces its own legal troubles having been caught-up in numerous alleged international

¹² Office of the Inspector General, TVA, Semiannual Report 18 (Apr. 1, 2015 - Sept. 30, 2015), <https://oig.tva.gov/reports/semi59.pdf>; see also Office of the Inspector General, TVA, Semiannual Report 8 (Oct. 1, 2010 - Mar. 31, 2011), <https://oig.tva.gov/reports/semi50.pdf>.

¹³ Office of Inspector General, TVA, Report of Administrative Inquiry 1 (Mar. 23, 2010), <https://www.politico.com/states/f/?id=0000016b-d7ca-d6eb-a96f-fffefba70001>; Andrew Seidman & Catherine Dunn, Holtec Funneled \$50,000 to Federal Employee in Bid to Win Contract, Inspector General Report says, *The Philadelphia Inquirer*, Jul. 9, 2019, <https://www.inquirer.com/business/holtec-tennessee-valley-authority-nj-tax-credit-investigation-20190709.html>.

¹⁴ Office of Inspector General, TVA, Report of Administrative Inquiry 4 (Mar. 23, 2010), <https://www.politico.com/states/f/?id=0000016b-d7ca-d6eb-a96f-fffefba70001>.

¹⁵ Nancy Solomon & Jeff Pillets, *Holtec’s \$260 Million Tax Break Frozen by NJ EDA*, WNYC News, June 4, 2019, <https://www.wnyc.org/story/holtecs-260-million-tax-break-frozen-eda/>; see also Ryan Hutchins, *Task Force Uncovers Bombshell Report on Holtec*, Politico, Jul. 10, 2019, <https://www.politico.com/newsletters/new-jersey-playbook/2019/07/10/task-forceuncovers-bombshell-report-on-holtec-454824>.

¹⁶ Notice of Violation to Holtec International, NRC OE EA 18-51, 2019 WL 2004418 (Apr. 24, 2019) (ADAMS Accession No. ML19072A128).

¹⁷ Applicants’ Answer Opposing the Commonwealth’s Mot. to Supplement its Petition with New Information at 8 (May 2, 2019); see also Holtec Response to NRC Request for Additional Information at Encl., p.2 (Apr. 17, 2019) (ADAMS Accession No. ML19109A177). In its RAI Response, for example, Holtec relies on the size of SNC-Lavalin’s workforce to support its assertion that it will have adequate support for its planned multi-reactor decommissioning endeavor, but SNC-Lavalin is currently restructuring its business and reducing its work force. Compare *id.* at E-2, with, e.g. *infra* note 19.

bribery scandals.¹⁸ Of course, any serious criminal or regulatory actions taken against Holtec, or its partners or executives, will have the potential of further draining resources and hampering Holtec's ability to perform decommissioning in a timely, safe and fiscally responsible manner.¹⁹

Those issues would be problematic if Holtec's obligations were limited to Pilgrim. But, as NRC Staff is aware, they are not limited to Pilgrim. In fact, Holtec is planning to embark on an uncharted path of attempting to decommission six nuclear power reactors at four different nuclear generating stations in four different states. The unprecedented nature of this endeavor and the cumulative impacts on Holtec's capacity to follow through on those commitments makes this license transfer application and Exemption Request sui generis and outside, for that reason alone, the license transfer actions contemplated by the Commission when it adopted its Subpart M Procedures (10 C.F.R. sub. pt. M). Holtec's unprecedented plan exacerbates all of the issues and concerns raised above and in the Commonwealth's Petition, Reply, and Motion to Supplement, and, in connection with the history described above, demands a heightened degree of scrutiny by NRC Staff and the Commission before any final action is taken on the license transfer or Exemption requests. While Holtec may be comfortable attempting to do what has never been done before, that is cold comfort for the Commonwealth and its citizens who have to accept Holtec as its new resident and the risks that accompany it all before the Commonwealth has an opportunity to present its views in an adjudicatory hearing. That concern is made all the worse by the fact that Holtec has asked the NRC to delete a pre-existing license condition upon which the public and the Commonwealth have relied that requires the Pilgrim licensee to have access to a \$50 million contingency fund for, among other things, "safe and prompt decommissioning." Renewed License No. DPR-35 at 4, ¶ J(4). Certainly, these facts preclude any "no significant hazards consideration" finding or reliance on a National Environmental Policy Act categorical exclusion since the proposed action does much more "than [simply] conform the license to reflect the transfer action." 10 C.F.R. § 2.1315. Indeed, granting the requested actions at Pilgrim and the other power stations will materially and significantly increase the risk to public health, safety, and the environment.

¹⁸ See, e.g., Richard L. Cassin, *Former SNC-Lavalin Chief Pleads Guilty in Bribery Case*, The FPCA Blog, Feb. 4, 2019, <https://www.fcpablog.com/blog/2019/2/4/former-snc-lavalinchief-pleads-guilty-in-bribery-case.html>; *SNC-Lavalin Opts for Judge-Only Trial in Corruption Case*, CBC News, June 28, 2019, <https://www.cbc.ca/news/canada/montreal/snc-lavalin-trialcorruption-bribery-judge-1.5193975>.

¹⁹ Indeed, as the Commonwealth noted in its Reply in Support of its Motion to Supplement its Petition with New Information at 3 n.4 (May 9, 2019), SNC-Lavalin's legal troubles have had serious consequences for the company. Just recently, in fact, SNC-Lavalin made a dramatic cut to its dividend payments, lost half of its shareholder value this year, and announced a major restructuring and downsizing of its business. E.g., Shanti S. Nair, *SNC-Lavalin Cuts Dividend, Posts Wider-Than-Expected Loss as Costs Run High*, Reuters, Aug. 1, 2019, <https://www.reuters.com/article/us-snc-lavalin-results/snc-lavalin-cuts-dividend-posts-widerthan-expected-loss-as-costs-run-high-idUSKCN1UR4FQ>.

5.0 ENVIRONMENTAL CONSIDERATION

The subject application is for approval of a transfer of a license issued by the NRC and an associated conforming amendment required to reflect the approval of the transfer. Accordingly, the actions involved meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(21). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the approval of the transfer application and conforming license amendment.

6.0 CONCLUSION

Based on the foregoing, and subject to the conditions described herein, the NRC staff concludes that Holtec Pilgrim and HDI are financially qualified and HDI is technically qualified to hold the license for Pilgrim and the general license for the Pilgrim ISFSI, as described in the application, and engage in the proposed maintenance and decommissioning activities associated with the Pilgrim site. The NRC staff has concluded, based on the considerations discussed above, that (1) the proposed transferees are qualified to be the direct and indirect holders of Renewed Facility Operating License No. DPR-35 and (2) the direct and indirect transfer of the license is otherwise consistent with the applicable provisions of law, regulations, and orders issued by the Commission pursuant thereto.

Additionally, the NRC staff finds that the Applicants have satisfied the NRC's decommissioning funding assurance requirements and the applicable onsite and offsite insurance requirements, as conditioned. Further, the NRC staff finds that the Applicants are not owned, controlled, or dominated by a foreign entity.

The NRC staff finds that proposed license transfer will be consistent with the requirements of the AEA and NRC regulations. The transfer of the licenses will not be inimical to the common defense and security and does not involve foreign ownership, control, or domination.

Principal Contributors: Victoria V. Huckabay, NRR/DIRS
Richard Turtill, NRR/DLP
Scott Wall, NRR/DORL

Date: August 22, 2019

Attachment:
Closing Balance Calculations in Support
of Applicants'/Transferee's PSDAR

ATTACHMENT 1: Pilgrim Nuclear Power Station Closing Balance Calculations in Support of Applicants'/Transferee's Post-Shutdown Decommissioning Activities Report (thousands of constant 2018 Dollars) <i>(reflects information from November 16, 2018, Entergy Nuclear Operations, Inc., and Holtec Decommissioning International submissions)</i>						
Year	Opening DTF Balance	License Termination Costs ^d	Spent Fuel Management Costs	Site Restoration Costs	Interest Earned ^e	Closing Balance
2019 ^a	\$1,030,000	\$84,927	\$53,920	\$18	\$5,273	\$896,408
2020	\$896,408	\$79,292	\$84,905	\$28	\$10,397	\$742,579
2021	\$742,579	\$46,759	\$82,500	\$637	\$8,700	\$621,384
2022	\$621,384	\$103,197	\$3,332	\$23,630	\$6,975	\$498,200
2023	\$498,200	\$167,453	\$3,135	\$1,700	\$4,628	\$330,540
2024	\$330,540	\$95,694	\$3,225	\$9,236	\$3,158	\$225,543
2025 ^b	\$225,543	\$1,310	\$6,306	\$4,127	\$3,036	\$216,837
2026	\$216,837		\$5,952		\$2,995	\$213,879
2027	\$213,879		\$5,939		\$2,953	\$210,893
2028	\$210,893		\$5,952		\$2,910	\$207,851
2029	\$207,851		\$5,952		\$2,867	\$204,766
2030	\$204,766		\$7,212		\$2,805	\$200,359
2031	\$200,359		\$7,212		\$2,743	\$195,891
2032	\$195,891		\$7,212		\$2,679	\$191,358
2033	\$191,358		\$7,212		\$2,615	\$186,762
2034	\$186,762		\$7,193		\$2,550	\$182,119
2035	\$182,119		\$7,212		\$2,484	\$177,391
2036	\$177,391		\$7,230		\$2,416	\$172,577
2037	\$172,577		\$7,212		\$2,348	\$167,713
2038	\$167,713		\$7,193		\$2,279	\$162,800
2039	\$162,800		\$7,212		\$2,209	\$157,798
2040	\$157,798		\$7,212		\$2,138	\$152,724
2041	\$152,724		\$7,212		\$2,066	\$147,579
2042	\$147,579		\$7,212		\$1,993	\$142,361
2043	\$142,361		\$7,212		\$1,919	\$137,068
2044	\$137,068		\$7,212		\$1,844	\$131,701
2045	\$131,701		\$7,193		\$1,768	\$126,276
2046	\$126,276		\$7,212		\$1,691	\$120,755
2047	\$120,755		\$7,212		\$1,612	\$115,156
2048	\$115,156		\$7,230		\$1,533	\$109,458
2049	\$109,458		\$7,193		\$1,452	\$103,717
2050	\$103,717		\$7,212		\$1,370	\$97,876
2051	\$97,876		\$7,193		\$1,288	\$91,971

ATTACHMENT 1: Pilgrim Nuclear Power Station Closing Balance Calculations in Support of Applicants'/Transferee's Post-Shutdown Decommissioning Activities Report (thousands of constant 2018 dollars) <i>(reflects information from November 16, 2018, Entergy Nuclear Operations, Inc. (ENOI) and Holtec Decommissioning International submissions)</i>						
Year	Opening DTF Balance	License Termination Costs ^d	Spent Fuel Management Costs	Site Restoration Costs	Interest Earned ^e	Closing Balance
2052	\$91,971		\$7,230		\$1,203	\$85,944
2053	\$85,944		\$7,212		\$1,118	\$79,851
2054	\$79,851		\$7,212		\$1,031	\$73,671
2055	\$73,671		\$7,193		\$944	\$67,422
2056	\$67,422		\$7,212		\$855	\$61,065
2057	\$61,065		\$7,212		\$765	\$54,618
2058	\$54,618		\$7,212		\$673	\$48,080
2059	\$48,080		\$7,212		\$580	\$41,449
2060	\$41,449	\$4,296	\$7,212		\$425	\$30,367
2061	\$30,367	\$4,375	\$7,212		\$267	\$19,047
2062 ^c	\$19,047	\$4,358	\$7,193		\$106	\$7,602
2063	\$7,602	\$892	\$2,441	\$706	\$51	\$3,615
Total		\$592,553	\$501,467	\$40,079		

a—Reflects the value of the decommissioning trust fund (DTF) following closure of the equity sale, in 2019, from the current licensee to the Applicants, which does not include deductions for costs incurred by the current licensee, ENOI, before closure of the sale

b—Year in which the Pilgrim site meets partial site release criteria

c—Anticipated year in which the U.S. Department of Energy takes possession of spent fuel from the Pilgrim independent spent fuel storage installation (ISFSI)

d—Includes funding for ISFSI decommissioning

e—Based on Applicants' data, real rate of return applied by the Applicants is equal to approximately 1.42 percent, which considers growth of DTF net of taxes.

No. 19-1198

Federal Respondents' Combined Motion to Dismiss
and Response to Petitioner's Stay Motion

Exhibit 7

access to NASA Headquarters. Foreign nationals attending this meeting will be required to provide a copy of their passport and visa in addition to providing the following information no less than 10 days prior to the meeting: Full name; gender; date/place of birth; citizenship; passport information (number, country, telephone); visa information (number, type, expiration date); employer/affiliation information (name of institution, address, country, telephone); title/position of attendee. To expedite admittance, attendees that are U.S. citizens and Permanent Residents (green card holders) are requested to provide full name and citizenship status no less than 3 working days prior to the meeting. Information should be sent to Mr. Andrew Rowe, at andrew.rowe@nasa.gov.

Patricia Rausch,

*Advisory Committee Management Officer,
National Aeronautics and Space
Administration.*

[FR Doc. 2019-17944 Filed 8-19-19; 8:45 am]

BILLING CODE 7510-13-P

NEIGHBORHOOD REINVESTMENT CORPORATION

Sunshine Act Meetings; Regular Board of Directors Meeting

TIME & DATE: 3:00 p.m., Wednesday, September 4, 2019.

PLACE: NeighborWorks America—Gramlich Boardroom, 999 North Capitol Street NE, Washington, DC 20002.

STATUS: Open (with the exception of Executive Session).

MATTERS TO BE CONSIDERED: The General Counsel of the Corporation has certified that in his opinion, one or more of the exemptions set forth in 5 U.S.C. 552 (b)(2) and (4) permit closure of the following portion(s) of this meeting:

- Report From CEO
- Board and Officer Elections

Agenda

- I. Call to Order
- II. Approval of Minutes
- III. Executive Session: Report from CEO
- IV. Action Item Recognition of Service for Senior Deputy Controller Grovetta Gardineer
- V. Action Item FY2020 Preliminary Budget
- VI. Action Item Investment Policy Update
- VII. Action Item Lapse Plan Policy
- VIII. Discussion Item Corporate Goals for FY2020
- IX. Discussion Item FY2021 Budget Submission Process

- X. Discussion Item Non-Core Private Funds
- XI. Discussion Item Western Region—Denver Office Lease Renewal
- XII. Discussion Item 40th Anniversary Event
- XIII. Management Program Background and Updates
- XIV. Adjournment

CONTACT PERSON FOR MORE INFORMATION: Rutledge Simmons, EVP & General Counsel/Secretary, (202) 760-4105; Rsimmons@nw.org.

Rutledge Simmons,

EVP & General Counsel/Corporate Secretary.

[FR Doc. 2019-18039 Filed 8-16-19; 4:15 pm]

BILLING CODE 7570-02-P

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-293; NRC-2019-0152]

Entergy Nuclear Operations Inc; Pilgrim Nuclear Power Station

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an exemption in response to a November 16, 2018, request from Entergy Nuclear Operations, Inc. (ENOI or the licensee) on behalf of Entergy Nuclear Generation Company (ENGCO) (to be renamed Holtec Pilgrim, LLC) and Holtec Decommissioning International, LLC (HDI), related to Pilgrim Nuclear Power Station (Pilgrim), located in Plymouth County, Massachusetts. The proposed action would permit Holtec Pilgrim, LLC and HDI to use funds from the Pilgrim decommissioning trust fund (the Trust) for management of spent fuel and site restoration activities. The staff is issuing a final environmental assessment (EA) and a final finding of no significant impact (FONSI) associated with the proposed exemption.

DATES: The EA and FONSI referenced in this document are available on August 20, 2019.

ADDRESSES: Please refer to Docket ID NRC-2019-0152 when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- *Federal Rulemaking Website:* Go to <https://www.regulations.gov> and search for Docket ID NRC-2019-0152. Address

questions about NRC docket IDs in *Regulations.gov* to Jennifer Borges; telephone: 301-287-9127; email: Jennifer.Borges@nrc.gov. For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION**

CONTACT section of this document.

- *NRC's Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly-available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to pdr.resource@nrc.gov. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the Availability of Documents section.

- *NRC's PDR:* You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: Scott P. Wall, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-2855; email: Scott.Wall@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

Pursuant to section 50.12 of title 10 of the *Code of Federal Regulations* (10 CFR), "Specific exemptions," the NRC is considering issuance of an exemption from 10 CFR 50.82(a)(8)(i)(A) for Renewed Facility Operating License No. DPR-35, issued to HDI for Pilgrim, located in Plymouth County, Massachusetts. By letter dated November 16, 2018 (ADAMS Accession No. ML18320A031), ENOI, on behalf of itself, Entergy Nuclear Generation Company (ENGCO) (to be known as Holtec Pilgrim, LLC), Holtec International (Holtec), and HDI submitted a License Transfer Application (LTA) requesting that the NRC consent to the proposed direct and indirect transfer of the Pilgrim Renewed Facility Operating License No. DPR-35 and the general license for the Pilgrim ISFSI (collectively referred to as the facility). Specifically, the Applicants requested that the NRC consent to the direct transfer of ENOI's currently licensed authority (licensed operator for decommissioning) to HDI. In addition, the Applicants requested the indirect transfer of control of ENGCO's ownership interests in the facility licenses to

Holtec. In Enclosure 2 of the November 16, 2018, LTA, HDI requested an exemption from 10 CFR 50.82(a)(8)(i)(A). The exemption would allow Holtec Pilgrim, LLC and HDI to use funds from the Trust for spent fuel management and site restoration activities, in the same manner that funds from the Trust are used under 10 CFR 50.82(a)(8) for radiological decommissioning activities. This exemption would only apply following NRC approval of the LTA and closing of the underlying transaction.

In accordance with 10 CFR 51.21, the NRC has prepared an environmental assessment (EA) that analyzes the environmental effects of the proposed action. Based on the results of this EA, and in accordance with 10 CFR 51.31(a), the NRC has determined not to prepare an environmental impact statement for the proposed licensing action and is issuing a finding of no significant impact (FONSI).

II. Environmental Assessment

Description of the Proposed Action

The proposed action would partially exempt Holtec Pilgrim, LLC and HDI from the requirements set forth in 10 CFR 50.82(a)(8)(i)(A). Specifically, the proposed action would allow Holtec Pilgrim, LLC and HDI to use funds from the Trust for spent fuel management and site restoration activities not associated with radiological decommissioning activities.

The proposed action is also described in the licensee's application dated November 16, 2018 (ADAMS Accession No. ML18320A031).

Need for the Proposed Action

By letter dated November 10, 2015 (ADAMS Accession No. ML15328A053), ENOI informed the NRC that it planned to permanently cease power operations at Pilgrim no later than June 1, 2019. ENOI permanently ceased power operations at Pilgrim on May 31, 2019. ENOI permanently defueled Pilgrim on June 9, 2019.

As required by 10 CFR 50.82(a)(8)(i)(A), decommissioning trust funds may be used by Holtec Pilgrim, LLC and HDI if the withdrawals are for legitimate decommissioning activity expenses, consistent with the definition of decommissioning in 10 CFR 50.2. This definition addresses radiological decontamination and does not include activities associated with spent fuel management or site restoration. Therefore, exemption from 10 CFR 50.82(a)(8)(i)(A) is needed to allow Holtec Pilgrim, LLC and HDI to use funds from the Trust for spent fuel

management and site restoration activities.

HDI stated that Table 1 of the application dated November 16, 2018, demonstrates that the Trust contains the amount needed to cover the estimated costs of radiological decommissioning, as well as spent fuel management and site restoration activities. The adequacy of funds in the Trust to cover the costs of activities associated with spent fuel management, site restoration, and radiological decontamination through license termination is supported by the revised Pilgrim Post-Shutdown Decommissioning Activities Report submitted by HDI in a letter dated November 16, 2018 (ADAMS Accession No. ML18320A034), as supplemented by letters dated January 9, 2019 and July 29, 2019 (ADAMS Accession Nos. ML19015A020 and ML19210E470, respectively). HDI stated that it needs access to the funds in the Trust to support spent fuel management and site restoration activities not associated with radiological decontamination.

In summary, by letter dated November 16, 2018, HDI requested an exemption from NRC regulations to allow Trust withdrawals for spent fuel management and site restoration activities.

Environmental Impacts of the Proposed Action

The proposed action involves regulatory requirements that are of a financial or administrative nature and that do not have an impact on the environment. The NRC has completed its evaluation of the proposed action and concludes that there is reasonable assurance that adequate funds are available in the Trust to complete all activities associated with radiological decommissioning. There would be no decrease in safety associated with the use of the Trust to fund activities associated with spent fuel management and site restoration. The NRC regulations in 10 CFR 50.82(a)(8)(v) require licensees to submit a financial assurance status report annually between the time of submitting their decommissioning cost estimate until they submit their final radiation survey and demonstrate that residual radioactivity has been reduced to a level that permits termination of the operating license. Section 50.82(a)(8)(vi) of 10 CFR requires that if the sum of the balance of any remaining decommissioning funds, plus expected rate of return, plus any other financial surety mechanism relied upon by the licensee, does not cover the estimated costs to complete the decommissioning, the financial assurance status report must include additional financial

assurance to cover the cost of completion. These annual reports provide a means for the NRC to monitor the adequacy of available funding. The proposed exemption would allow Holtec Pilgrim, LLC and HDI to use Trust funds to support spent fuel management and site restoration activities not associated with radiological decontamination. The NRC staff has determined that there is reasonable assurance of adequate funding for radiological decommissioning based on the remaining Trust funds dedicated for radiological decontamination. Specifically, HDI has provided detailed, site-specific, cost-estimates for radiological decommissioning that the NRC staff finds sufficiently demonstrate that the Trust funds dedicated to radiological decommissioning are adequate. Thus, there is reasonable assurance that there will be no environmental effect due to lack of adequate funding for decommissioning.

The proposed action will not significantly increase the probability or consequences of radiological accidents or change the types of effluents released offsite. In addition, there would be no significant increase in the amount of any radiological effluent released offsite, and no significant increase in occupational or public radiation exposure. There would be no materials or chemicals introduced into the plant affecting the characteristics or types of effluents released offsite. In addition, waste processing systems would not be affected by the proposed exemption. Therefore, there would be no significant radiological environmental impacts associated with the proposed action.

Regarding potential nonradiological impacts, the proposed action would have no direct impacts on land use or water resources, including terrestrial and aquatic biota, as it involves no new construction or modification of plant operational systems. There would be no changes to the quality or quantity of nonradiological effluents, and no changes to the plant's National Pollutant Discharge Elimination System permits would be needed. In addition, there would be no noticeable effect on socioeconomic and environmental justice conditions in the region, no air quality impacts, and no potential to affect historic properties. Therefore, there would be no significant nonradiological environment impacts associated with the proposed action.

Accordingly, the NRC concludes that there would be no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered the denial of the proposed action (*i.e.*, the “no-action” alternative). Denial of the exemption request would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action would be similar.

Alternative Use of Resources

There are no unresolved conflicts concerning alternative uses of available resources under the proposed action.

Agencies or Persons Consulted

No additional agencies or persons were consulted regarding the environmental impact of the proposed action. On August 14, 2019, the NRC notified the Commonwealth of Massachusetts representative of the EA and FONSI.

III. Finding of No Significant Impact

The requested exemption from 10 CFR 50.82(a)(8)(i)(A) would allow Holtec Pilgrim, LLC and HDI to use funds from the Trust for spent fuel

management and site restoration activities.

The NRC is considering issuing the requested exemption. The proposed action would not significantly affect plant safety, would not have a significant adverse effect on the probability of an accident occurring, and would not have any significant radiological or nonradiological impacts. The reason the human environment would not be significantly affected is that the proposed action involves an exemption from requirements that are of a financial or administrative nature that do not have an impact on the human environment. Consistent with 10 CFR 51.21, the NRC conducted the EA for the proposed action, and this FONSI incorporates by reference the EA included in Section II of this document. Therefore, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined there is no need to prepare an environmental impact statement for the proposed action.

As required by 10 CFR 51.32(a)(5), the related environmental document is the “Generic Environmental Impact Statement for License Renewal of

Nuclear Plants: Regarding Pilgrim Nuclear Power Station, Final Report,” January 2007 (NUREG–1437, Supplement 29, Volumes 1 and 2), which provides the latest environmental review of current operations and description of environmental conditions at Pilgrim.

The finding and other related environmental documents may be examined, and/or copied for a fee, at the NRC’s Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. Publicly-available records are accessible electronically from ADAMS Public Electronic Reading Room on the internet at the NRC’s website: <https://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC’s PDR Reference staff by telephone at 1–800–397–4209 or 301–415–4737, or by email to pdr.resource@nrc.gov.

IV. Availability of Documents

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

Date	Title	ADAMS Accession No.
6/10/2019	Letter from Entergy to NRC titled “Certifications of Permanent Cessation of Power Operations and Permanent Removal of Fuel from the Reactor Vessel”.	ML19161A033
11/16/2018	Letter from Entergy to NRC titled “Application for Order Consenting to Direct and Indirect Transfers of Control of Licenses and Approving Conforming License Amendment; and Request for Exemption from 10 CFR 50.82(a)(8)(i)(A)”.	ML18320A031
11/16/2018	Letter from HDI to NRC titled “Notification of Revised Post-Shutdown Decommissioning Activities Report and Revised Site-Specific Decommissioning Cost Estimate for Pilgrim Nuclear Power Station”.	ML18320A040
11/10/2015	Letter from Entergy to NRC titled “Notification of Permanent Cessation of Power Operations”	ML15328A053
7/2007	NUREG–1437, Supplement 29, “Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Regarding Pilgrim Nuclear Power Station,” Volumes 1 and 2.	ML071990020; ML071990027

Dated at Rockville, Maryland, this 15th day of August, 2019.

For the Nuclear Regulatory Commission.

Scott P. Wall,

Senior Project Manager, Plant Licensing Branch III, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. 2019–17888 Filed 8–19–19; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

[Docket No. 50–289; NRC–2019–0079]

Exelon Generation Company LLC; Three Mile Island Nuclear Station Unit 1

AGENCY: Nuclear Regulatory Commission.

ACTION: License amendment application; withdrawal by applicant.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) has granted the request of Exelon Generation Company, LLC to withdraw its application dated December 14, 2018, for a proposed amendment to Renewed Facility Operating License No. DPR–50 for the Three Mile Island Nuclear Station, Unit

1. The proposed amendment would have revised Technical Specification 6.8.5 “Reactor Building Leakage Rate Testing Program,” to allow for a one-cycle extension to the 10-year frequency of the containment leakage rate test (*i.e.*, Integrated Leakage Rate Test (ILRT) or Type A test).

DATES: The withdrawal of the proposed amendment takes effect on August 20, 2019.

ADDRESSES: Please refer to Docket ID NRC–2019–0079 when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- *Federal Rulemaking website:* Go to <https://www.regulations.gov> and search

No. 19-1198

Federal Respondents' Combined Motion to Dismiss
and Response to Petitioner's Stay Motion

Exhibit 8

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE COMMISSION

In the Matter of)

ENTERGY NUCLEAR OPERATIONS, INC.,)
ENTERGY NUCLEAR GENERATION COM-)
PANY, AND HOLTEC DECOMMISSIONING)
INTERNATIONAL, LLC; CONSIDERATION)
OF APPROVAL OF TRANSFER OF LI-)
CENSE AND CONFORMING AMENDMENT)

Docket Nos. 50-293 & 72-1044

(Pilgrim Nuclear Power Station))
)

**APPLICATION OF THE COMMONWEALTH OF MASSACHUSETTS
FOR A STAY OF THE EFFECTIVENESS OF THE NUCLEAR REGULATORY COM-
MISSION STAFF'S ACTIONS APPROVING THE LICENSE TRANSFER APPLICA-
TION AND REQUEST FOR AN EXEMPTION TO USE THE DECOMMISSIONING
TRUST FUND FOR NON-DECOMMISSIONING PURPOSES**

COMMONWEALTH OF MASSACHUSETTS

MAURA HEALEY
ATTORNEY GENERAL

SETH SCHOFIELD
Senior Appellate Counsel
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Dated: September 3, 2019

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Holtec International and its business partner SNC-Lavalin—both embroiled in legal controversies about their character, veracity, and judgment—are poised to embark on an unprecedented effort to decommission six nuclear reactors at four different generation stations in four different states in a time frame never achieved, let alone attempted. Despite the pendency of the Commonwealth of Massachusetts’ and Pilgrim Watch’s petitions for a hearing on Holtec’s financial and technical qualifications to hold Pilgrim Nuclear Power Station’s licenses and to qualify for an exemption to use Pilgrim’s Decommissioning Trust Fund for non-decommissioning purposes,¹ the lack of any action by the Commission on the Commonwealth’s petition within 10 C.F.R. § 2.309(j)’s prescribed 45-day period, and the Commonwealth’s objections to issuance of any pre-hearing effective actions, on August 22, 2019, the Nuclear Regulatory Commission (NRC) Staff approved the license transfer application (LTA) and the Trust Fund exemption requests. In doing so, Staff violated NRC regulations and the National Environmental Policy Act (NEPA) by, among other things, approving the license transfer and exemption requests even though it is clear *today* that insufficient funds exist in the Trust Fund to cover all obligations necessary to protect the public and the environment. Because the Commonwealth will suffer irreparable harm due to these unlawful actions, the harm to Applicants from a stay is non-existent, and the public interest weighs heavily in favor of preserving the status quo in this non-emergency matter, the Commission should stay Staff’s actions pending administrative and/or judicial review.

BACKGROUND

Pilgrim’s only source of revenue—generating electricity—ended when the plant closed on May 31, 2019. As a deregulated electricity generation facility (i.e., a merchant reactor), Pilgrim’s owner cannot obtain any additional ratepayer funds to cover plant costs. Because of the significant safety, public health, and environmental risks this scenario creates—a massive liability held by a limited liability company with a discrete fund—the NRC, in 1999, required Pilgrim’s licensee to

¹ The Commonwealth incorporates by reference as if set forth herein its Petition, Reply, Motion to Supplement and Reply in Support of its Motion to Supplement. The Commonwealth also adopts and incorporates by reference as if set forth herein Pilgrim Watch’s contentions, including its amended contention.

maintain “access to a contingency fund of not less than fifty million dollars” to cover, if needed, decommissioning costs.² Staff’s recent action stripped that condition from the license, and, at the same time, authorized Holtec to rely on Pilgrim’s Trust Fund as its only funding to decommission, restore the site, and manage spent fuel onsite. Holtec’s application, in fact, was conditioned on its receipt of an exemption to use that Fund to cover *all* costs at Pilgrim. Pilgrim’s Trust Fund was funded by Massachusetts ratepayers and the Boston Edison divestiture was approved, in part, because the Trust Fund would be used to decommission the site without further costs to Massachusetts residents.³ The Commonwealth and its ratepayers have a stake in how those funds are used.

Holtec International has never decommissioned a nuclear power reactor in the United States.⁴ Holtec International is a privately-owned company and its only two shareholders are trusts controlled by Dr. Krishna Singh. LTA 5. Dr. Singh is on Holtec International’s Board of Directors and serves as its President and Chief Executive Officer. LTA Attach. C. He also holds those positions at four of the five entities Holtec International created to protect itself and its officers from liability in the event Pilgrim’s Trust Fund is exhausted before the work at Pilgrim is done—Holtec Power, Inc., Nuclear Asset Management Company, LLC, Holtec Pilgrim, LLC, and Holtec Decommissioning International, LLC (HDI). A fifth legal entity, Comprehensive Decommissioning International (CDI), is jointly owned by HDI and SNC-Lavalin, to “perform the day-to-day activities at the site.” LTA 12. The only available asset is the Trust Fund, which is underfunded by at least \$56 million and possibly by as much as \$768 million. *See* Brewer 2d Decl. ¶¶ 7-8 & Ex. 2, 14 & Ex. 3. Two of those entities, HDI and CDI, are likely to have the same responsibilities at five other nuclear reactors. This set-up will overextend their self-described management capacities and exacerbate the already significant risk of delays, mistakes, and additional cost-overruns.⁵ And it will occur in the context of an underfunded Trust Fund and Holtec International’s and SNC-Lavalin’s questionable integrity and noncompliance history.

² MA Petition at 5; MA Petition Reply at 26, 31-32.

³ *In re Boston Edison Co.*, D.T.E. 98-119, at 22 (Mar. 22, 1999).

⁴ Appendix (App). at 8 (Second Decl. of Warren Brewer ¶ 12 (Sept. 3, 2019) (Brewer 2d. Decl. ¶ ____).

⁵ MA Petition at 20-21; App. at 557-58, 1111-48.

ARGUMENT

A. The Commonwealth is Likely to Succeed on the Merits.

The Commonwealth is likely to succeed on the merits of its contentions. First, Holtec has failed to demonstrate that it satisfies the NRC's financial requirements, rendering Staff's uncritical adoption of Holtec's assumptions and representations arbitrary and capricious. As Staff acknowledge, Holtec relies exclusively on Pilgrim's Trust Fund (and its requested exemption to use it for non-decommissioning purposes) to satisfy its financial qualification requirements. Safety Eval. Rep. (SER) 9. Holtec's attempt to show that the Trust Fund includes adequate funds to decommission, restore the site, and manage spent fuel is deeply flawed. MA Pet. Reply 23. In particular, Holtec relies on, and Staff accept, the indefensible assumption that the U.S. Department of Energy (DOE) will begin removing spent fuel from Pilgrim in 2030 and complete that effort by 2062. Decomm. Cost Estimate (DCE) 24; SER 13. That assumption is based on DOE's *un-effec-*tuated 2013 *Strategy for the Management and Disposal of Used Nuclear Fuel*,⁶ and is incongruous with Holtec's own representation to the NRC in another proceeding that spent fuel could be stored on site for 120 years.⁷ Legal, political, and social barriers also upend Holtec's baseless assumption here and the cash flow analysis that relies on it.⁸ When Holtec's counterfactual assumption is replaced with its more reasonable (yet still wholly uncertain) 120-year timeframe, it is mathematically impossible for Holtec to demonstrate that it is financially qualified because it will incur at least \$500 million more in costs than the Trust Fund has in it.⁹

Holtec's application and cash-flow analysis also do not comply with 10 C.F.R. § 50.75's minimum financial assurance certification or 10 C.F.R. § 50.82(4)(i)'s site-specific cost estimate requirement—two separate requirements. Section 50.75(b)(1) dictates that Holtec “*must*” have

⁶ App. at 1573.

⁷ *E.g.*, App. at 1162, 1169. The indefensible nature of this assumption may be why the Commission included a condition requiring Northstar to obtain indefinitely an annual bond to cover spent fuel costs at Vermont Yankee unless Northstar enters into a settlement agreement with DOE, App. at 1410-11, which recoveries would then be placed back in the Trust Fund, App. at 1181.

⁸ *E.g.*, App. at 1199, 1210-11, 1223, 1241-51, 1304-09; *see also* WILLIAM M. ALLEY & ROSEMARIE ALLEY, TOO HOT TO TOUCH: THE PROBLEM OF HIGH-LEVEL NUCLEAR WASTE (2013) (describing failed effort that began in 1955 to construct a permanent repository for spent fuel and unrealized assumptions about the date when that would occur).

⁹ Brewer 2d Decl. ¶ 14 & Ex. 3.

included “a certification that financial assurance for decommissioning will be . . . or has been . . . provided in an amount which *may be more, but not less*, than the” minimum formula amount. § 50.75(b)(1) (emphasis added). Section 50.75(b)(4), in turn, indicates that the “certification *may* be based on a [site-specific] cost estimate,” § 50.75(b)(4), but that is true only where that estimate is “*more . . . than the*” mandatory minimum formula amount, *see* § 50.75(b)(1). Because Holtec omitted § 50.75(b)(1)’s required certification, Staff asked Holtec to submit a revised cash-flow analysis.¹⁰ Holtec’s response, which claims to show that its revised analysis exceeds the minimum amount, is as misleading as it is wrong, because it omits an assumption used in its prior cash-flow allowance (one it claims to include) that when included shows a \$56 million shortfall.¹¹ Staff elide this omission by granting a *de facto* exemption from § 50.75(b)(1) and then allowing Holtec to rely instead on its deficient site-specific cost estimate under 10 C.F.R. § 50.82(4), finding it “reasonable.” SER 11, MA Pet. 7-26.¹² Even if that were lawful, one cannot reasonably find that Holtec “provide[d] adequate justification” because Holtec did not provide the information required to make that showing, Brewer 2d. Decl. ¶ 9, and it is premised on the wholly unreasonable assumption that DOE will remove all spent fuel from Pilgrim by 2062, *supra*, pp.3-4.

Holtec also has failed to demonstrate that it has the requisite technical qualifications to hold Pilgrim’s licenses. Technical competence turns, in part, on the applicant’s “‘integrity,’ or character” to perform its responsibilities “in a manner consistent with public health and safety and applicable NRC requirements,” and character includes “candor, truthfulness, [and] willingness to abide by regulatory requirements.” *Metro. Edison Co. (Three Mile Island Nuclear Station, Unit 1)*, CLI-85-9, 21 N.R.C. 1118, 1136-37 (1985). Both Holtec’s and SNC-Lavalin’s past and present conduct undermine any technical competence finding here. Indeed, as noted above, Holtec’s response to Staff’s July 26 RAI was, at best, highly misleading regarding the assumptions in its

¹⁰ App. at 1007.

¹¹ Brewer 2d Decl. ¶ 8 & Ex. 2; *see also* App. at 1819; App. at 1007.

¹² Even if an NRC guidance could countermand the clear dictates of § 50.75(b)(1), which it cannot, neither NUREG-1713 nor Regulatory Guide 1.202 authorize an applicant to satisfy § 50.75(b)’s certification requirement with a site-specific cost estimate that is *lower* than the *minimum* formula amount. Instead, NUREG-1713 and Reg. Guide 1.202 speak only to justifying a site-specific cost estimate that is less than the formula amount in the context of the required § 50.82(4)(i) cost estimate. *See* NUREG-1713, at 20; Reg. Guide 1.202 at 4, 9.

revised cash flow analysis, *supra* p.4—an issue that is related directly to its qualifications to hold the licenses and is part of a pattern of other questionable conduct. In June, for example, the New Mexico Public Lands Commissioner wrote Holtec CEO Dr. Singh to “address several misrepresentations that Holtec has made to the NRC” about its proposed centralized interim storage facility.¹³ Other relevant events abound, including a recent finding that Holtec violated NRC regulations and a federal investigative report documenting a senior Holtec official coaching a federal employee to lie to federal investigators as part of a Holtec-orchestrated bribery scheme.¹⁴ Staff’s decision to give Holtec *carte blanche* to use Pilgrim’s Trust Fund like its own personal bank account is unjustified. *See infra* p.6. And the past and present history surrounding the Canadian government’s criminal fraud and bribery charges against SNC-Lavalin—for which the company faces a potential ten-year debarment if found guilty,¹⁵ and which have adversely impacted its market value, as well as the company’s recent restructuring and downsizing, facts mentioned nowhere in Holtec’s submissions, are well known, and make that Staff’s decision even more indefensible.¹⁶

Second, Staff violated NEPA’s anti-segmentation rule by treating Holtec’s license transfer application, Trust Fund exemption request, and Revised PSDAR and DCE as discrete actions.¹⁷ Even if that rule were not violated here, Staff’s reliance on a categorical exclusion to exempt the license transfer application from any NEPA review and its acceptance of Holtec’s assertion that its proposed decommissioning activities are bounded by prior NEPA analysis also violate NEPA. The categorical exclusion Staff rely on applies only to license transfer approvals “and any associated amendments *required* to reflect the approval,” 10 C.F.R. § 51.22(c)(21) (emphasis added), and the regulatory history makes clear that “required” license amendments are ones that are “administrative” in nature, i.e., name substitutions. 63 Fed. Reg. 66,721, 66,728 (Dec. 3, 1998). Here,

¹³ App. at 1413.

¹⁴ App. at 1819-21.

¹⁵ App. at 1827.

¹⁶ App. at 1819-21; MA Reply in Supp. of Mot. to Supp. Pet. with New Information 3 (May 9, 2019).

¹⁷ DANIEL R. MANDELKER, NEPA LAW AND LITIGATION § 9.15 (2019 update).

Staff's conforming license amendment is "substantive in nature,"¹⁸ because it eliminates a \$50 million contingency fund requirement that (i) was added to the license by the NRC to cover "safe and prompt decommissioning" in the event of a shortfall¹⁹ and (ii) "is not required to reflect [transfer] approval," § 51.22(c)(21). As regards Holtec's PSDAR, Staff accepts Holtec's statement that the activities described vaguely in its PSDAR "will be bounded by previously issued environmental impact statements." SER 9; 10 C.F.R. § 50.82(4)(i). But, in addition to the reasons described in the Commonwealth's Petition and Reply, Holtec's anticipated shipment of 1,400 separate truckloads of radiological waste and the environmental impacts related to those shipments far exceeds the 671 truck shipments evaluated in the Decommissioning GEIS. Brewer 2d Decl. ¶ 16. This doubling will result in significant, unevaluated environmental impacts, and mandates both a finding that Holtec's PSDAR is deficient and additional NEPA analysis.²⁰

Third, Staff's decision to grant Holtec's request for an *unconditioned* exemption to use Pilgrim's Trust Fund for site restoration and spent fuel management costs was also unlawful. Indeed, it constitutes an abdication of the NRC duty to ensure ratepayer funds are used for their intended purpose. As the Commonwealth has explained elsewhere,²¹ the NRC intentionally chose in its regulations to prohibit the use of decommissioning trust funds for anything other than radiological decontamination, 10 C.F.R. §§ 50.2, 50.75(c) n.1, yet it has never denied a licensee request for an exemption to use those funds for *non*-decommissioning purposes, making the exemption the *de-facto* regulation.²² Not only does this practice contravene the Administrative Procedure Act, but it also constitutes a complete disavowal in this case of the NRC's duty to the Commonwealth and its residents to ensure that the Trust Fund is used for its intended purpose until that purpose is achieved. Staff's exemption approval authorizes the withdrawal of \$500 million from

¹⁸ See *Entergy Nuclear Vermont Yankee*, CLI-16-17, 2016 WL 8729987 at *18.

¹⁹ LTA Encl. 1, Attach. A, at 4 (Condition J (4)).

²⁰ See *Entergy Nuclear Vermont Yankee*, CLI-16-17, 2016 WL 8729987 at *14 & n.130.

²¹ App. at 1381-1404.

²² *Entergy Nuclear Vt. Yankee*, CLI-16-17, 2016 WL 8729987 at 17 (Baran, Comm'r, concurring in part and dissenting in part).

Trust Fund with no conditions—including a condition requiring Holtec to return the portion of those funds it recovers from DOE to the Trust Fund—meaning that Staff has permitted Holtec both to take nearly \$500 million in ratepayer money as private profit and leave the Trust Fund exhausted by 2063 even though Holtec’s obligation to safely secure spent fuel on site will likely remain for decades after that date, if not indefinitely.²³ And, in violation of NEPA, Staff’s related environmental assessment and finding of no significant impact finds, remarkably, “no decrease in safety associated with the” exemption even though it is clear today that, as of 2063, the licensee will have no committed funds to secure the spent fuel onsite. 84 Fed. Reg. 43,186, 43,187 (Aug. 20, 2019).

B. Staff’s Actions Will Irreparably Harm the Commonwealth.

The Commonwealth sought, in light of the NRC’s “policy . . . to encourage settlement in cases pending before it,” to stay these proceedings prior to Staff action to complete negotiations that, if successful, would address the Commonwealth’s concerns about the harm Holtec’s then-proposed actions would cause to the State and its residents and resulted in the withdrawal of its petition.²⁴ With that process compromised by the denial of that relief,²⁵ Massachusetts and its citizens are now likely to suffer irreparable harm in the absence of a stay. First, Staff’s actions are likely to make it impossible to complete decommissioning successfully or lead to irreversible consequences if regulatory or financial concerns (which are likely to arise for the reasons described above) require a modified decommissioning approach. Brewer 2d Decl. ¶ 5. According to Holtec’s PSDAR schedule, it will draw over \$303 million from the Trust Fund during the first 17 months of the decommissioning, site restoration, and spent fuel management work or more than 29% of the money available in the Trust if everything goes perfectly according to Holtec’s ambitious plan. *Id.* ¶ 15. That substantial draw down, however, will leave insufficient funds in the Trust Fund to permit another entity to complete the work or alter the initiated approach outlined in Holtec’s PSDAR if Holtec falters. *Id.* That is so because Holtec’s DECON approach may

²³ This is in contrast to Vermont Yankee, where, as Staff’s SER notes, the licensee made a regulatory commitment to limit its spent fuel withdrawals from Vermont Yankee’s Decommissioning Trust Fund to \$20 million and to place its DOE recoveries back into the that Fund. App. at 1181.

²⁴ *Energy Fuels Nuclear, Inc. (White Mesa Uranium Mill)*, LBD-97-10, 45 N.R.C. 429, 432 (1997).

²⁵ Memorandum and Order, CLI-19-08 (Aug. 14, 2019) (ADAMS Accession No. ML19226A107).

leave the facility in such a state as to preclude a transition to SAFSTOR, rendering meaningless the NRC's ability to alter that approach due to a shortfall or a determination that, as the Commonwealth contends, Holtec is technically unsuited to perform the work as planned. *See id.* As a result, local Massachusetts residents will be exposed to increased safety and health hazards.

The Commonwealth and its citizens are likely to suffer irreparable harm due to the immediate start of decommissioning activities, including health, safety, and infrastructure harm inflicted by, among other things, frequent waste shipments over local roads, which will cause noise, dust, and air pollution emissions, increase the risk of accidents on local roads, and damage local transportation infrastructure. Brewer 2d Decl. ¶ 16. Based on assertions in Holtec's PSDAR, which appear to underestimate radioactive waste volume, *id.* ¶ 16 nn.13-14, Holtec will need to transport at least 1,400 separate truckloads of radiological waste, which, again, is more than twice the volume evaluated in the decommissioning GEIS, *id.* ¶ 16. When shipments of non-radioactive waste are added, it is likely that the total number of truckloads will rise to 2,400 to 3,400 total trips. *Id.* And shipments of legacy waste are likely to be removed and shipped by truck during the first sixty days. *Id.* Absent a stay, waste shipments will thus begin immediately and cause immediate irreparable harm to local and state infrastructure and local health, safety, and the environment. *Id.*

The Commonwealth has also suffered immediate, irreparable harm from the Staff's failure to prepare an environmental impact statement [EIS] that takes a hard look at the indirect and direct potential environmental impacts of the now-approved actions. Longstanding Atomic Safety and Licensing Board precedent makes clear that the "[f]ailure to produce an [EIS] where," as here, "one is required . . . constitute[s] injury—indeed, irreparable injury." *Consumers Power Co. (Palisades Nuclear Plant)*, LBD-79-20, 10 N.R.C. 108, 115-16 (1979). The First Circuit has emphasized the point, finding that "when a decision to which NEPA obligations attach is made without the informed environmental consideration that NEPA requires, the harm that NEPA intends to prevent *has been* suffered." *Mass. v. Watt*, 716 F.2d 946, 952 (1st Cir. 1983) (emphasis added). For these reasons, as detailed in the declaration, *see* Brewer 2d Decl. ¶¶ 5, 15-16, 19, the procedural and substantive harms that flow immediately from Staff's approvals will be irreparable.

C. A Stay Will Preserve the Status Quo and Not Harm Applicants.

“A stay . . . is . . . a device to maintain the ‘*status quo ante litem*’ pending consideration of the merits of the case.”²⁶ Holtec’s only claimed harm here is that a stay would create uncertainty for the 270 current Pilgrim employees because those employees would be left to wonder about their future employment status.²⁷ Not so. First, the asserted harm is unsupported by any actual evidence and, even if it were supported, it concerns harm to current Pilgrim staff, not Holtec. Second, this claimed harm (to the extent it is real) will exist regardless of a stay, because the same uncertainty is created by the fact that the Commission retains authority to “rescind . . . the approved transfer.”²⁸ Third, whether it be Entergy or Holtec, the licensee will have to retain the staff needed to maintain the plant notwithstanding the license transfer status. Brewer 2d. Decl. ¶ 17. Fourth, while Holtec attempts to tie this speculative harm to the future employment status of current Pilgrim employees, it has failed to identify how many existing plant personnel it will retain after license transfer, a decision, again, that is independent of the license transfer date. *Id.*

Holtec related claim that delay of the license transfer may impair its ability to retain existing Pilgrim personnel is also baseless. Indeed, it supports the Commonwealth’s stay request because it reinforces the Commonwealth’s contention that Holtec is technically unsuitable to hold the license. That is so, because, Holtec’s claimed harm appears rooted in a lack of confidence in its own ability to retain and attract qualified personnel to decommission, restore the site, and safely maintain spent fuel. Brewer 2d Decl. ¶ 18. This issue, among others, as the Commonwealth explained in its August 21, 2019 letter to staff, “would be problematic if Holtec’s obligations were limited to Pilgrim.”²⁹ But Holtec’s existing and likely future obligations are not so limited, because Holtec is planning to embark on an uncharted path of attempting simultaneously to decommission six nuclear power reactors at four different nuclear generating stations in four different states.

²⁶ *The Toledo Edison Co. et al. (Davis-Besse Nuclear Power Station, Units 1, 2, and 3)*, ALAB-385, 5 N.R.C. 621, 625 (1977).

²⁷ Applicants’ Answer Opposing the Mot. of the Commonwealth of Massachusetts to Stay Proceedings to Complete Settlement Negotiations 5 (Aug. 5, 2019).

²⁸ *E.g.*, NRC Staff Order at 6 (Aug. 22, 2019) (ADAMS Accession No. ML19170A265).

²⁹ App. at 1816-22.

Finally, any claimed harm from a stay to Holtec is one of its own making because Holtec, together with Entergy, controlled when they filed the license transfer and the related exemption requests. Their decision to file those requests at a time when NRC action was certain to occur *after* the plant's closure certainly cannot form a basis now for them to claim that the Commonwealth's request for a stay harms them. The same is true for Holtec and Entergy's decision to close their deal as quickly as possible—two business days after the Staff's actions. Thus, to the extent they claim harm caused by a stay of Staff's actions, that harm was self-inflicted.

D. The Public Interest Requires Issuance of a Stay

The Commonwealth represents the sovereign and proprietary rights of itself as a State and the rights of the tens of thousands of Massachusetts residents and their communities that surround Pilgrim and the millions of Massachusetts taxpayers that may be adversely affected by actions approved by Staff. While both the Commonwealth and the public have an interest in the prompt decommissioning and restoration of Pilgrim, their immediate and greater interest is ensuring that Holtec has the financial and technical capacity to decommission, restore the site, and manage Pilgrim's spent fuel in a manner that is safe and protects the environment and public health and safety. A promise of expeditious decommissioning and site restoration, of course, means nothing if Holtec lacks the financial and technical wherewithal to fulfill it. Indeed, if, as the Commonwealth contends, Holtec has not met those requirements, then the public, including local residents and Massachusetts taxpayers, will suffer greatly for all of the reasons described above and in the Commonwealth's other filings. Nor is this a case where a pre-hearing approval yields any immediate, tangible benefits to the public. Instead, the benefits here flow only to Entergy and Holtec and their private interest in closing their financial transaction. A private interest in closing a financial transaction surely cannot defeat the public interest in a full and fair hearing on the merits.

* * *

For the foregoing reasons, the Commonwealth requests that the Commission grant this Application for a Stay pending administrative and/or judicial review.

Respectfully submitted,

COMMONWEALTH OF MASSACHUSETTS

By its attorneys,

MAURA HEALEY
ATTORNEY GENERAL

Signed (electronically) by _____

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Dated: September 3, 2019

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC.,)
ENTERGY NUCLEAR GENERATION COM-)
PANY, AND HOLTEC DECOMMISSIONING)
INTERNATIONAL, LLC; CONSIDERATION)
OF APPROVAL OF TRANSFER OF LI-)
CENSE AND CONFORMING AMENDMENT)

Docket Nos. 50-293 & 72-1044

(Pilgrim Nuclear Power Station)

CERTIFICATION OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I certify that the Application of the Commonwealth of Massachusetts for a Stay of the Effectiveness of the Nuclear Regulatory Commission Staff's Actions Approving the License Transfer Application and Request for an Exemption to Use The Decommissioning Trust Fund for Non-Decommissioning Purposes has been served on all parties to this proceeding through the Electronic Information Exchange, the NRC's e-filing system, in the above-captioned proceeding this 3rd day of September 2019.

Signed (electronically) by

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Dated: September 3, 2019

No. 19-1198

Federal Respondents' Combined Motion to Dismiss
and Response to Petitioner's Stay Motion

Exhibit 9

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE COMMISSION

In the Matter of)	
)	
ENTERGY NUCLEAR OPERATIONS, INC.,)	
ENTERGY NUCLEAR GENERATION)	
COMPANY, AND HOLTEC)	Docket Nos. 50-293 & 72-1044
DECOMMISSIONING INTERNATIONAL,)	
LLC; CONSIDERATION OF APPROVAL OF)	
TRANSFER OF LICENSE AND)	
CONFORMING AMENDMENT)	
)	
(Pilgrim Nuclear Power Station))	

**COMMONWEALTH OF MASSACHUSETTS'
REPLY IN SUPPORT OF PETITION FOR LEAVE
TO INTERVENE AND HEARING REQUEST**

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Dated: April 1, 2019

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INTRODUCTION

The Applicants, Entergy Nuclear Operations, Inc. (Entergy) and Holtec International (Holtec) (collectively, the Applicants),¹ oppose the Commonwealth of Massachusetts' Petition to Intervene and for a Hearing on the Proposed Action² based on a simple yet wholly misguided premise: trust us. Trust that the Pilgrim Decommissioning Trust Fund (Trust Fund) contains a sufficient amount of money for Holtec, on its first attempt, to decommission and restore the site (including remediation of non-radiological contamination) at a pace never previously achieved. Trust that the amount remaining in the Trust Fund after license termination will be enough to manage spent nuclear fuel safely onsite for decades. And trust that the Nuclear Regulatory Commission's (NRC or Commission) oversight will prevent a funding shortfall as an otherwise asset-less Holtec embarks on this unprecedented effort. But the NRC's financial assurance requirements are not built on trust; they are built on the need for a detailed showing that Holtec has accounted for all plausible contingencies in its DCE and that it has sufficient funds to pay for all activities described in its PSDAR as well as the plausible contingencies of those activities. As explained in the Commonwealth's Petition and elaborated on further below, the Commonwealth has satisfied its minimal burden to demonstrate the existence of a genuine material dispute and the right to a hearing on both of the Commonwealth's Contentions.

¹ In this Reply, Entergy refers to Entergy Nuclear Operations, Inc. and Entergy Nuclear Generation Company (ENGCO) (to be known as Holtec Pilgrim, LLC), and Holtec refers to Holtec International and Holtec Decommissioning International, LLC (HDI).

² The Proposed Action includes the License Transfer Application (Application or LTA), Holtec's unconditioned request for an exemption to use Pilgrim's Decommissioning Trust Fund for site restoration and spent fuel management costs (Exemption Request), and Holtec's Revised Post-Shutdown Decommissioning Activities Report (PSDAR) and Site-Specific Decommissioning Cost Estimate (DCE or Cost Estimate). *See infra* pp.35-36.

The Commonwealth's Petition sets forth two contentions. First, the Applicants have failed to demonstrate that their DCE properly accounts for plausible contingencies that may arise during decommissioning, site restoration, and management of spent fuel onsite. Second, the National Environmental Policy Act (NEPA) requires the Commission to fully consider and disclose to the public the potential direct and indirect environmental consequences of the Applicants' Proposed Action. Each contention is accompanied by lengthy and detailed bases and supporting evidence, including five declarations from expert witnesses. Each contention, as explained in the Commonwealth's Petition and elaborated on below, satisfies 10 C.F.R. § 2.309(f)(1)'s contention admissibility requirements.

In their response, Applicants challenge the Commonwealth's contentions on the following grounds. With respect to the first contention, the Applicants assert that Holtec's cost estimate is accurate and that Pilgrim's Trust Fund provides ample financial assurance for funding decommissioning, site restoration, and spent fuel management, because (1) the NRC can require Holtec to provide additional financial assurance in the event of a potential shortfall, and (2) Holtec could recover \$500 million in spent fuel costs from the U.S. Department of Energy (DOE). With respect to the Commonwealth's NEPA-related contention, the Applicants flatly deny that any potential environmental consequences will flow from a Commission decision accepting Holtec's PSDAR and DCE and granting the LTA and Exemption Request.

The Applicants fail, however, to address two uncontested facts that are fatal to their attempt to defeat the Commonwealth's Petition. First, should future costs arise that exceed available funds, the Commission would be unable to secure additional funding from Holtec for the simple reason that Holtec Pilgrim's and HDI's only currently committed source of funds (and indeed only source of funds, as neither of those entities have any assets) are the funds in the

Trust Fund. Second, Holtec has carefully avoided making a regulatory commitment to use the \$500 million it hopes to recover from DOE to cover any funding shortfall. Not only do these two uncontested facts undercut the Applicants' arguments against the Commonwealth's first contention, but they also give rise to a reasonably foreseeable possibility of a funding shortfall and associated potential environmental effects, supporting the Commonwealth's second contention regarding the need for the NRC to perform at least an environmental assessment under NEPA in addition to the fact that the categorical exclusion the Applicants claim exempts the Proposed Action from NEPA simply does not apply. For these reasons, in addition to the reasons set forth in the Commonwealth's Petition and its supporting expert declarations, the Commission should grant the Commonwealth's Petition.

CONTENTION ADMISSIBILITY STANDARDS

To have its contentions admitted for a hearing, the Commonwealth must satisfy the contention admissibility standards set forth in 10 C.F.R. § 2.309(f)(1). While these standards may very well be "enforced rigorously," as the Applicants state, Answer 12, the Commission's decisions make clear that the Commonwealth's contentions must be "viewed in a light favorable to" the Commonwealth and require only "a minimum showing." *Gulf States Utils. Co., et al.* (River Bend Station, Unit 1), 40 N.R.C. 43, 51-52 (Aug. 23, 1994); *see also Arizona Pub. Serv. Co.* (Palo Verde Nuclear Station, Unit Nos. 1, 2 & 3), 34 N.R.C. 149, 155 (Aug. 16, 1991). The Commonwealth need not "prove its case" at this stage. *Gulf States Utils. Co.*, 40 N.R.C. at 51. Instead, to show a genuine dispute exists, the factual support necessary "need not be in formal evidentiary form, nor be as strong as that necessary to withstand a summary disposition motion." *Id.* All that "is required is a minimal showing that material facts are in dispute, thereby

demonstrating that an inquiry in depth is appropriate.” *Id.* (internal quotations omitted). Both of the Commonwealth’s Contentions satisfy these threshold admissibility standards.

ARGUMENT

I. Contention I Satisfies 10 C.F.R. § 2.309(f)(1)’s Admissibility Requirements.

The Applicants fail to provide sufficient detail demonstrating that their financial assurance, which includes their projected cash flow analysis, adequately considers realistic contingencies that Holtec is likely to face in the decommissioning, site restoration, and spent fuel management work it must undertake at Pilgrim if the requested relief is granted. The Commonwealth identifies numerous scenarios that may lead to significant cost overruns, many of which have actually occurred during nuclear decommissioning at other sites in New England and across the Nation. It is impossible to tell from the conclusory statements in the Applicants’ application regarding the assumptions underpinning their cash flow analysis whether they have accounted for these realistic possibilities. The Commonwealth does not need to prove that each one of the examples proffered in its Petition will occur. Rather, it need only show that the identified contingencies are plausible and that Holtec’s cash flow analysis does not provide adequate details demonstrating the Applicants’ ability to cover potential contingencies. Thus, and as further outlined below, the Commonwealth raises an admissible, material dispute pursuant to 10 C.F.R. § 2.309(f)(1) with respect to the Applicants’ cash flow analysis.

The Commonwealth’s first Contention also raises an admissible challenge to the “no significant hazards consideration” finding because the Applicants’ proposed removal of the \$50 million contingency condition that the NRC required to be in Pilgrim’s license is a substantive amendment. As a result of the license transfer, Entergy is “extinguishing its interest in and responsibility for Pilgrim.” Answer 17. Yet, the \$50 million condition is expressly imposed on

ENGEC (to be renamed Holtec Pilgrim), *which will survive the transfer*. Applicants' unilateral proposal to eliminate that NRC-imposed license obligation on ENGEC/Holtec Pilgrim constitutes a significant substantive change for the operating licensee. The Commonwealth is thus not challenging the NRC's regulations in 10 C.F.R. § 2.1315, but rather the application of those regulations to the facts of this case.

A. The Commonwealth Has Provided Adequate Factual Support and Expert Opinion to Raise a Genuine Dispute in Contention I.

Contention I meets all aspects of 10 C.F.R. § 2.309(f)(1). The Applicants specifically challenge Contention I on the grounds that it does not: (1) provide an adequate basis, § 2.309(f)(1)(ii); (2) demonstrate material issues, § 2.309(f)(1)(iv); and (3) provide sufficient information to show a genuine material dispute, § 2.309(f)(1)(vii). Answer 19. The Applicants are wrong.

Section 2.309(f)(1)(ii) requires the Commonwealth to "[p]rovide a brief explanation of the basis for [its] contention." 10 C.F.R. § 2.309(f)(1)(ii). The basis for Contention I is straightforward: the LTA fails to contain sufficient information to demonstrate that Holtec's financial assurance, which includes its projected cash flow analysis, is acceptable as required under by Section 182(a) of the Atomic Energy Act (AEA) and the NRC regulations that implement that AEA. 42 U.S.C. § 2232. "[F]unding plans that rely on assumptions seriously at odds with governing realities will not be deemed acceptable simply because their form matches plans described in the regulations."³ It is the Applicants' burden to show with sufficient information that Holtec is financially qualified to hold the NRC license it seeks, which here includes sufficient funds "to cover the estimated costs for the radiological decommissioning of

³ *N. Atl. Energy Serv. Corp., et al* (Seabrook Station, Unit 1), 49 N.R.C. 201, 222 (Mar. 5, 1999).

the facility (including the ISFSI), [site restoration,] and spent fuel management[.]”⁴ The fundamental basis for Contention I is that Holtec has not made this demonstration with a satisfactory level of detail to show that the Proposed Action, if allowed, will comply with 10 C.F.R. § 50.82(a)(8)(i)(B) or (C).

Section 2.309(f)(1)(iv) requires the Commonwealth to “[d]emonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding.” 10 C.F.R. § 2.309(f)(1)(iv). The issue of financial assurance is undoubtedly material to the findings the NRC must make in this action. The NRC Staff’s review of the license transfer application for Vermont Yankee makes that clear. There, as here, NRC Staff stated that they must analyze “the projected costs for decommissioning the facility and terminating the license, and managing irradiated fuel until the [DOE] takes title and possession of the fuel,” and determine whether the transferee has sufficient funds to cover those costs.⁵ Indeed, NRC Staff included an independent cash flow analysis after assessing Vermont Yankee’s decommissioning trust fund and the proposed costs to terminate the NRC license and manage the spent fuel.⁶ Here, just as in the Vermont Yankee proceeding, Holtec must show that it is financially qualified to hold the NRC license so that the NRC may find that Holtec complies with the NRC’s financial requirements, including 10 C.F.R. §§ 50.33(f), (k)(1), 50.54(bb), 50.75, and

⁴ *Safety Evaluation by the Office of Nuclear Reactor Regulation and Office of Nuclear Material Safety and Safeguards Related to Request for Direct and Indirect Transfers of Control of Renewed Facility Operating License No. DPR-28 and the General License for the independent Spent Fuel Storage Installation from Entergy Nuclear Operations, Inc. and Entergy Nuclear Vermont Yankee, LLC to Northstar Vermont Yankee, LLC and Northstar Nuclear Decommissioning Company, LLC*, Vermont Yankee Nuclear Power Station, Dkt. Nos. 50-271 & 72-59, at 17 (Oct. 11, 2018) (ADAMS Accession No. ML18242A639) (hereinafter, *NRC Staff Safety Evaluation, Vermont Yankee*).

⁵ *Id.* at 9, 17

⁶ *Id.* at 9-13, Att. 1.

50.82(a).⁷ Thus, not only must the NRC evaluate the transferee's financial circumstances, but it must also find that its financial representations, and how it intends to pay for decommissioning, site cleanup, and spent fuel management, are reliable and sufficient.

At this stage, the Commonwealth need only show the existence of a genuine dispute that there currently exists "reasonable assurance" that Holtec can pay for the activities described in its PSDAR, including decommissioning, site restoration, and spent fuel management.⁸ Here, Holtec is relying solely upon Pilgrim's Trust Fund as both the means to show that it is financially qualified to hold the license and to satisfy its decommission and spent fuel management financial assurance obligations, Answer 17. Yet, Holtec's own cash flow analysis reveals that it only has a \$3.615 million margin of error, Brewer Decl. ¶ 5. That same cash flow analysis shows that Holtec expects to draw down the Trust Fund at a remarkable rate: \$855,331,000 between 2019 and 2025.⁹ For perspective, that is an average withdrawal of \$122,190,142 per year or \$10,182,511 per month during that short period. At this rate of expenditure, the occurrence of even one of the decommissioning or site restoration contingencies outlined in the Commonwealth's Petition and supported by the declarations attached would cause Holtec to exceed its thin margin of error before the Commission even becomes aware of the issue vis-à-vis one of Holtec's annual financial reports. Thus, if Holtec experiences any amount of cost overrun above \$3.615 million, which is extremely plausible considering the examples proffered by the Commonwealth and as further explained below, Holtec will not have any committed source of

⁷ *Id.* at 5-9. See Entergy Nuclear Vermont Yankee, 83 Fed. Reg. 53,116 (Oct. 9, 2018).

⁸ *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), 47 N.R.C. 142, 181 (Apr. 22, 1998) (citing *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), 43 N.R.C. 1, 9 (Jan. 16, 1996)).

⁹ DCE at 46-47, Tbl.5-1.

funding to cover those additional costs. Accordingly, the issue of financial assurances raised in Contention I “is material to the findings the NRC must make to support the action.” 10 C.F.R. § 2.309(f)(1)(iv). And, at a minimum, the Commonwealth has demonstrated that the issue “is open to some question,” which is the only showing it must make at this stage.¹⁰

Section 2.309(f)(1)(vi) requires the Commonwealth to “provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact.” 10 C.F.R. § 2.309(f)(1)(vi). While the Commonwealth believes that, as further explained below, it has demonstrated that Holtec will face a shortfall in the Trust Fund, at this stage, the Commonwealth does not have to prove that a specific event will more likely than not cause a shortfall in the Fund.¹¹ Instead, to raise an admissible dispute with Holtec’s financial assurance, the Commonwealth may assert, with supporting documentation, that Holtec’s cost-and-revenue estimates fail to provide a realistic outlook for Pilgrim.¹²

The LTA is insufficient because Holtec’s financial assurance, including its cash flow analysis, is based on broad, conclusory statements, and assumptions that are not available for review. The Commonwealth raises numerous realistic scenarios, many of which have occurred at other decommissioning nuclear plants, that could necessitate costly additional work or extended delays that quickly drive Holtec’s costs well beyond its estimate. Based on the conclusory statements in Holtec’s Cost Estimate and a complete lack of detail regarding the assumptions underpinning its cash flow analysis, however, it is unclear whether Holtec considered these realistic possibilities.

¹⁰ *Gulf States Utils. Co.*, 40 N.R.C. at 52.

¹¹ *See N. Atl. Energy Serv. Corp.*, 49 N.R.C. at 222; *Gulf States Utils. Co.*, 40 N.R.C. at 51.

¹² *See N. Atl. Energy Serv. Corp.*, 49 N.R.C. at 222.

The Commonwealth is not predicting that each one of these scenarios will come to pass. Rather, the contingencies described in the Commonwealth's Petition are events that Holtec will likely face if the NRC grants the LTA and Exemption Request and thus becomes obligated to decommission Pilgrim, restore the site, and manage the spent nuclear fuel for as long as it remains onsite. Indeed, the Applicants are not incorrect that many of the examples could apply to any plant, not just Pilgrim. Answer 30. This, however, is precisely the point. They could easily happen at any plant, including Pilgrim. Yet, what applies specifically to Pilgrim, is that the LTA fails to provide details necessary to ascertain whether these likely events are accounted for in Holtec's cost estimate. Thus, the Commonwealth raises an admissible, material dispute with Holtec's cash flow analysis and cost estimate because Holtec has failed to provide sufficient information to demonstrate that it has adequate funds to cover all of the costs and plausible contingencies associated with the decommissioning, restoring the site, and managing Pilgrim's spent nuclear fuel. In other words, the Commonwealth's contention questions whether Holtec's cost estimate is based on a reasonable outlook for Pilgrim—an issue that is clearly “challengeable.”¹³

The Applicants argue in their Answer that Contention I falsely presumes that financial assurance must “amount[] to a guarantee that the estimated costs of decommissioning and spent fuel management will not be exceeded,” and also that the NRC ““will accept financial assurances based on plausible assumptions and forecasts, even though the possibility is not insignificant that things will turn out less favorably than expected.”” Answer 19-20, 30 (citing *N. Atl. Energy Serv. Corp.*, 49 N.R.C. at 221-22 (emphasis removed)). However, this mischaracterizes both the Commonwealth's position and the standard of review at the contention admissibility phase.

¹³ *N. Atl. Energy Serv. Corp.*, 49 N.R.C. at 221.

First, the Commonwealth is not asking for a perfect prediction of every possible cost. Rather, the Commonwealth is asserting that Holtec's cost-and-revenue estimates in the LTA and DCE do not demonstrate a realistic outlook for Pilgrim because it is not apparent that the estimates cover certain likely events that could easily cause a shortfall in the Trust Fund. This contention, as the Commission previously remarked, "lie[s] at the core of the NRC's license transfer inquiry."¹⁴

Second, the question of whether the Commonwealth has adequately pleaded this contention does not turn on the ultimate standard for approving the requested action, as the Applicants suggest. Answer 19-20. To the contrary, that is the purpose of the hearing. At this stage, the Commonwealth must only show with supporting documentation that there exists a material dispute warranting further inquiry.¹⁵ Here, the Commonwealth is disputing whether the LTA and the PSDAR and DCE sufficiently demonstrate that adequate funds will exist in the Trust Fund for Holtec to pay for all of its likely costs by identifying plausible, realistic events with supporting declarations that do not appear to have been considered in the cash flow analysis and which could prematurely deplete the Trust Fund. As the Commission also previously remarked, it "cannot [simply] brush aside such economically based safety concerns without giving the [Petitioner] a chance to substantiate its concerns at a hearing[.]"¹⁶

The Applicants repeatedly claim that the NRC's oversight and reporting requirements during decommissioning and onsite spent fuel management provide reasonable assurance that funding will remain adequate for both decommissioning and spent fuel management and falsely state that the Commonwealth is challenging these regulations. Answer 20-22, 30. To be clear,

¹⁴ *Id.* at 219.

¹⁵ *Id.*

¹⁶ *Id.* at 222.

the Commonwealth is not challenging the NRC's oversight and reporting requirements. Instead, the Commonwealth is claiming that this particular LTA and the related PSDAR and DCE lack a sufficiently detailed financial demonstration to allow Holtec to satisfy its obligation to demonstrate adequate financial qualification or assurance.¹⁷

The Applicants' argument is also substantially incorrect for several reasons. First, the Applicants' claim that the reporting requirements *alone* are sufficient to demonstrate adequate financial assurance is circular and defies common sense. If, for example, the Applicants were correct, then any contention alleging financial or economic concerns would be inadmissible because there would always be sufficient financial assurance, which is not the case.¹⁸ Likewise, an applicant could simply rely on future reporting as a means to satisfy their present regulatory obligation and choose not to submit any financial assurance at all during the license transfer application process. Precisely because this circular logic makes no sense, the Commission has already flatly rejected it in the case that the Applicants' themselves cite. Answer 20; *see also N. Atl. Energy Serv. Corp.*, 49 N.R.C. at 222 (rejecting applicant's attempt to conflate compliance with the regulation's filing requirement with compliance with the regulation's financial assurance standard). As the Commission noted in that decision, a contrary conclusion would also force the Commission to accept an applicant's estimates and preclude the agency from "look[ing] behind them."¹⁹

Second, the Applicants contradict themselves regarding the source of Holtec's financial assurances. The Exemption Request states that if a future funding shortfall is revealed in one of

¹⁷ *See N. Atl. Energy Serv. Corp.*, 49 N.R.C. at 221.

¹⁸ *See N. Atl. Energy Serv. Corp.*, 49 N.R.C. at 222; *Gulf States Utils. Co.*, 40 N.R.C. at 51.

¹⁹ *N. Atl. Energy Serv. Corp.*, 49 N.R.C. at 221.

Holtec's annual financial assurance reports, then Holtec will include in that report additional financial assurance to cover the additional cost to complete decommissioning, or a plan to obtain additional funds if the shortfall concerns spent fuel management. Answer 20-21 (citing LTA, Encl. 2 at E-4). The Applicants also state baldly in their Answer that "HDI and Holtec Pilgrim have substantial means to provide additional financial assurance." *Id.* 22-23. These unsupported assertions, however, are contradicted by the Applicants' statement that "Holtec Pilgrim and HDI are basing their financial qualifications on the adequacy of the [Trust Fund] and are *not* relying on any parent support agreement or any other form of supplemental financial assurance to support their financial qualifications," Answer 17 (emphasis added), and their statement in the LTA that "Holtec will be responsible for funding the costs of decommissioning, spent fuel management, and site restoration" and money for those payments will derive entirely from the Trust Fund. LTA 16-17. Whichever the case may be, neither position demonstrates adequate financial assurance.

If, on the one hand, Holtec's only source of funding is the Trust Fund (as it states in the Application), and there is a shortfall in a future year, then the Trust Fund is depleted and there are no other forms of supplemental financial assurance to support Holtec Pilgrim and HDI.²⁰ If, on the other hand, Holtec Pilgrim and HDI "have substantial means to provide additional financial assurance" (an assertion that lacks any credibility since both entities have zero assets of their own), then there is an insufficient demonstration that these additional financial assurances

²⁰ The Applicants suggest that if there were insufficient funds to complete DECON, then it would place Pilgrim in SAFSTOR until such time that the Trust Fund grows to complete decommissioning. Answer 27. However, this cannot be assumed. If the Trust Fund is depleted, then the likelihood that the Trust Fund will grow back sufficiently at only 2 percent a year to complete decommissioning before the NRC's 60-year deadline is far from certain. Regardless, this is a conclusory statement with no support.

could exist because there currently exists no proposed or committed parental guarantee, surety, or other contemplated financing mechanism. Indeed, other than that bald assertion, the Applicants provide not even the slightest hint as to where these funds might come from or how Holtec Pilgrim and HDI might obtain them.²¹

Third, the Applicants cite to *Entergy Nuclear Vermont Yankee*, CLI-16-17 for the proposition that “the applicable regulations provide reasonable assurance that adequate funds will remain to complete decommissioning by requiring [the licensee] and the Staff to monitor the projected cost of decommissioning and available funding and ensure more funding is available.” Answer 21 (citing *Entergy Nuclear Vermont Yankee*, CLI-16-17, 2016 WL 8729987, at *12). But that case is distinguishable and does not apply here. First, that case concerns a request for a hearing on a stand-alone exemption request.²² The present case, in contrast, concerns a license transfer request, an exemption request, and an inadequate PSDAR and DCE where the transferee has made clear that its only source of money is the Trust Fund. Second, in that case, NRC staff already granted the exemption, and the NRC was reviewing the reasonableness of that determination.²³ Here, there is no prior determination by NRC Staff. Third, in that case, despite the oversight and reporting regulations, NRC Staff still reviewed the licensee’s decommissioning cost estimates and funding to determine that there were sufficient funds available for

²¹ The Applicants state in their Answer that they may rely upon a surety bond or parental guarantee (Answer 24), but aside from the obvious contradiction noted above and lack of any details supporting this claim, the Applicants have not committed to providing any such mechanism. Regardless, even if they did, Applicants cannot now attempt to resolve through extra commitments the concerns raised in a contention to defeat a properly pled intervention. It is for the NRC to determine at a hearing whether these extra commitments resolve the issues. See *Arizona Pub. Serv. Co.*, 34 N.R.C. at 156.

²² *Entergy Nuclear Vermont Yankee*, CLI-16-17, 2016 WL 8729987, at *8.

²³ *Id.*, at *8-11.

decommissioning, upon which analysis the NRC relied.²⁴ Finally, when this issue arose again in an analogous context, the Commission required additional financial assurance to ensure compliance with the Commission's financial assurance requirements, thus largely repudiating the Commission's earlier statement in the narrower context.²⁵ Thus, this case does not stand for the proposition that the NRC's oversight and reporting alone provide adequate financial assurances.

The Applicants attempt to defend their cash flow analysis by stating that it contains conservatisms, namely the potential that DOE may reimburse them for Holtec's potential spent fuel management costs. Answer 22-25. Significantly, however, the Applicants stop short of making a commitment to put those potential recoveries back into the Trust Fund or even to hold them in a separate dedicated account available to pay for future costs associated with the plant. Answer 24. For that reason, the Applicants cannot now rely on potential DOE recoveries to demonstrate that adequate financial assurance exists to cover decommissioning, site restoration, and spent fuel management costs.

Even assuming Holtec now makes the commitment to use potential DOE spent fuel management cost recoveries as financial assurance, such a commitment cannot defeat the admissibility of the Commonwealth's contention. "[T]he question as to whether such a commitment would serve to satisfactorily resolve the concern raised in an otherwise adequately pleaded contention is a matter that now ought properly to be addressed after the contention is admitted."²⁶ Moreover, as a general matter, the NRC has refused to allow licensees to rely on

²⁴ *Id.* at *10-11.

²⁵ *NRC Staff Safety Evaluation, Vermont Yankee* at 9-17; *see also* Entergy Nuclear Vermont Yankee, 83 Fed. Reg. 53,116 (Oct. 9, 2018).

²⁶ *Arizona Pub. Serv. Co.*, 34 N.R.C. at 156.

DOE recoveries to satisfy their financial assurance obligations.²⁷ And in the one instance cited by the Applicants where the NRC did allow such an occurrence at Vermont Yankee, it did so only under carefully proscribed terms, including requiring the licensee to obtain a performance bond to cover spent fuel costs if it failed to enter a settlement agreement with DOE by a certain date²⁸ and on the condition (suggested by the licensee) that it use only up to \$20 million from the Vermont Yankee Trust Fund (on a revolving basis) to pay for spent fuel management costs.²⁹ It was on those bases that NRC Staff made the finding quoted in the Applicants' Answer, which states that the NRC Staff finds "that the assumption of DOE reimbursement is a reasonable source of additional funding." Answer 23 (quoting *NRC Staff Safety Evaluation, Vermont Yankee* at 15). Tellingly, Applicants make no mention in their papers of the critical details of the manner in which use of DOE funds at Vermont Yankee was limited and structured. Those circumstances, however, are not present in this case; Holtec has made no regulatory commitment of any sort on this issue.

The Applicants further argue that none of the examples the Commonwealth presents are sufficiently supported. Answer 29. The numerous, factually supported examples presented in the Commonwealth's Petition constitute such plausible reasons to question Holtec's cost

²⁷ Cf. 10 C.F.R. § 50.75(e)(iii)(A) (chosen method of financial assurance must "guarantee that decommissioning costs will be paid"); see *Entergy Response to NRC's Request for Additional Information to Support the Review of the Vermont Yankee Nuclear Power Station Update to VY Spent Fuel Management Plan (TAC No. ME1152)*, dated May 20, 2009, BVY 09-048, at 1 (Aug. 18, 2009) (ADAMS Accession No. ML092370298) (NRC noting that DOE "liability judgment does not guarantee the payment of damages in any certain amount or any payment date, and it could be overturned").

²⁸ *NRC Staff Safety Evaluation, Vermont Yankee* at 14-15; see also *Entergy Nuclear Vermont Yankee*, 83 Fed. Reg. 53,116 (Oct. 9, 2018).

²⁹ *NRC Staff Safety Evaluation, Vermont Yankee* at 14-15 n.2; see also *Entergy Nuclear Vermont Yankee* 83 Fed. Reg. 53,116 (Oct. 9, 2018).

estimate and “cannot [be] brush[ed] aside” at this stage based on the Applicants’ repeated claims that those events will not happen to them.³⁰ Indeed, the Applicants’ attempts to contravene the Commonwealth’s factual assertions demonstrate that factual disputes exist that may only be resolved in a hearing. *Pa’ina Hawaii, LLC*, LBP-06-04, 63 N.R.C. 99, 112 (Jan. 24, 2006). Even so, the Commonwealth believes that some of these events will occur at Pilgrim and, therefore, will reply to some of Applicants’ arguments against the likelihood of their occurrences.³¹

To begin, contrary to the Applicants’ assertions, the Commonwealth proffered declarations that support its contention and are not speculative or conclusory. Answer 29. In this context, the Commission has said that the following statements are conclusory: “the application is ‘deficient,’ ‘inadequate,’ or ‘wrong.’”³² In contrast, the Commonwealth submitted over forty (40) pages of expert declarations describing in detail the significance of the Commonwealth’s contentions. Declarations of Warren K. Brewer, David E. Howland, Paul W. Locke, John M. Priest, Jr., and Timothy Newhard. While the Applicants may not agree with the substance of those declarations, there is certainly enough “reasoned basis or explanation” for the NRC “to make the necessary, reflective assessment of the opinion[s]” and factual statements set forth in those declarations, as is demonstrated by the examples that follow.³³

³⁰ See *N. Atl. Energy Serv. Corp.*, 49 N.R.C. at 222.

³¹ This section is not intended to respond to every argument made or position taken by the Applicants. Rather, it is intended to respond only to the extent necessary to assist the Commission (or the ASLB) in its deliberations. Silence by the Petitioner with respect to any issue addressed in the Applicants’ Answer should thus not be construed as assent to its position.

³² *USEC, Inc.* (American Centrifuge Plant), 63 N.R.C. 451, 472 (Apr. 3, 2006) (quoting *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), 47 N.R.C. 142, 181 (Apr. 22, 1998)).

³³ *Id.*

Regarding the possibility of work schedule delays, the Applicants' explanation of its 17 percent contingency allowance is misleading and misses the Commonwealth's point entirely that the contingency is inadequate for its broadly stated purpose and as compared to the industry. Pet. 22-23; Brewer Decl. ¶¶ 8-9.³⁴ The Entergy DCE for Pilgrim includes a contingency for the typical reasons found in DCEs, namely to cover events such as weather delays, equipment delays, and labor delays that are expected to occur in any project.³⁵ These are cost impacts that do not alter the project's scope and cannot be tied to a specific activity.³⁶ Such contingency is expected to be fully consumed over the course of the project.³⁷ This contingency expressly does not include any allowance for other types of risks including changes in scope.³⁸ The level of contingency in Entergy's DCE is 16.92 percent.³⁹

Holtec describes its 17 percent contingency as providing for the typical cost impacts accounted for by Entergy's contingency and, *in addition*, providing for possible discrete events and changes in scope.⁴⁰ In his declaration, however, Mr. Brewer explained why Holtec's 17

³⁴ Regarding the Applicants' references as to why the Humboldt Bay costs increased, *see* Answer 31, the largest single driver was inadequate initial assumptions concerning tritium contamination, which was discovered during decommissioning to be much worse and led to removal of the reactor caisson. Ltr. from Pacific Gas and Electric Company to NRC, *Decommissioning Funding Report for Humboldt Bay Power Plant, Unit 3; Humboldt Bay Power Plant, Unit 3*; Docket No. 50-133; License No. DPR-7, Encl. 4, at 32-33 (Apr. 1, 2013) (ADAMS Accession No. ML13093A028). The Applicants attempt to distinguish this example are thus wholly misplaced.

³⁵ Ltr. from Entergy, to NRC, *Post Shutdown Decommissioning Activities Report, Pilgrim Nuclear Power Station*; Docket No. 50-293; License No. DPR-35, Att. 1, § 3, at 3-5 (Nov. 16, 2018) (ADAMS Accession No. ML18320A034) (hereinafter, "Entergy PSDAR").

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.* at Att. 1, App. C, at 10.

⁴⁰ DCE at 39-41; Answer at 32-33.

percent contingency allowance calculation fails to adequately account for all plausible risks.

Brewer Decl. ¶¶ 8-9. Holtec does not describe in its DCE how the same contingency in one case (Entergy) is only sufficient to cover events within a fixed scope of work, yet in the other case (Holtec) this same percentage is also sufficient to cover changes in scope of the project. The Commonwealth's criticism is that the DCE provides insufficient information to demonstrate that Holtec's 17 percent contingency is sufficient to cover both the cost impacts typically found in DCE contingencies, such as weather delays, *as well as* cost impacts from changes in the project's scope, such as the discovery and remediation of unknown contaminants.⁴¹

In their declarations, Brewer, Locke, Howland, and Priest presented concrete examples both of the types of non-radiological contamination that, in their expert opinion, Holtec is likely to discover in the course of decommissioning Pilgrim, and how the discovery of both radiological and non-radiological contamination at other sites caused actual costs to increase significantly beyond what was estimated in the absence of comprehensive site characterizations. Brewer Decl. ¶ 11; Locke Decl. ¶¶ 7-9; Howland Decl. ¶¶ 5-7; Priest Decl. ¶¶ 5-14. Regarding these issues, which could easily change the project's scope, the Applicants misrepresent the Commonwealth's contention. The Commonwealth does not have to prove at this time "that

⁴¹ The Applicants point to Crystal River, Fort Calhoun, Oyster Creek, and Vermont Yankee DCEs, among others, as supporting the normalcy of expending the entire contingency. Answer 33 n.100. However, the contingency in these examples only covers the same type of things provided for by the contingency in the Entergy DCE for Pilgrim. Unlike Holtec, none of these other estimates include any contingency or allowance for risks such as changes in scope. Updated Site-Specific Decommissioning Cost Estimate for the Crystal River Unit 3 Nuclear Generating Plant, at xi (May 2018) (ADAMS Accession No. ML18178A181); Fort Calhoun Station, Site Specific Decommissioning Cost Estimate, at xi-xii (Feb. 2017) (ADAMS Accession No. ML17089A759); Decommissioning Cost Analysis for the Oyster Creek Nuclear Generating Station, at xii (March 2016) (ADAMS Accession No. ML16090A067); Vermont Yankee Nuclear Power Station, Site Specific Decommissioning Cost Estimate, at xii (Dec. 2014) (ADAMS Accession No. ML14357A110).

Applicants have overlooked significant sources of radiological or non-radiological contamination at the Pilgrim site.” Answer 39. Nor is the Commonwealth challenging the adequacy of the NRC’s monitoring and reporting rules.⁴² Rather, the Commonwealth is asserting that Holtec does not concretely know at this time the extent of all contaminations at the Pilgrim site and has, based on the Commonwealth’s experts’ opinions, not prepared for when it will likely find unknown contamination because it has not factored it into its cash flow analysis. The Commonwealth is challenging Holtec’s financial ability to address such possible contingencies.

Realistic experience in decommissioning nuclear power plants, including Yankee Rowe, Howland Decl. ¶ 5, and Humboldt Bay, Brewer Decl. ¶ 9,⁴³ is that Holtec will discover previously unidentified radiological and non-radiological contamination. Holtec’s apparent belief that it is fully aware of the extent of all contamination at Pilgrim underscores its lack of experience in decommissioning nuclear power plants. Indeed, the Commonwealth is unaware of any domestic nuclear power station that has been owned and decommissioned by either Holtec or its beleaguered partner, SNC-Lavalin.⁴⁴ Yet, despite this inexperience, Holtec is simultaneously

⁴² Additionally, the Commonwealth is also not challenging NRC’s 25 millirem standard for unrestricted release. *See* Answer 39. The Commonwealth is identifying that Pilgrim will also have to be prepared to meet the standards set by the U.S. Environmental Protection Agency since tritium is present in the groundwater at Pilgrim and it is possible that further investigation or future testing will reveal concentrations that exceed the federal standard (as has been indicated by past reports). Priest Decl. ¶ 8. It is unclear whether Holtec’s cash flow analysis contemplates this standard. *Id.*

⁴³ *See also* Ltr. from Pacific Gas and Electric Company, to NRC, *Decommissioning Funding Report for Humboldt Bay Power Plant, Unit 3; Humboldt Bay Power Plant, Unit 3*; Dkt. No. 50-133; License No. DPR-7, Encl. 4, at 32-33 (Apr. 1, 2013) (ADAMS Accession No. ML13093A028).

⁴⁴ *See, e.g.,* Allison Lampert, *Canada’s SNC Lavalin Eyes Ways to Protect Business Amid Political Crisis*, Reuters, Mar. 22, 2019, <https://www.reuters.com/article/us-canada-politics-snc-lavalin/canadas-snc-lavalin-eyes-ways-to-protect-business-amid-political-crisis-idUSKCN1R32TN>; Sandrine Rastello & Laura Millan Lombrana, *SNC-Lavalin ‘Appalled’ and ‘Surprised’ as Chilean Miner Codelco Cancels \$260-Million Contract*, Bloomberg News, Mar.

seeking to own and decommission a second nuclear power station, Oyster Creek Nuclear Generating Station.⁴⁵ Indeed, NRC Staff recently issued a request for additional information, which seeks “information that justifies that [Holtec’s] management and technical support organization will have sufficient resources (i.e., corporate structure, management and technical support organization staff capacities, internal procedures, etc.) to conduct licensed activities at multiple sites.”⁴⁶ This inexperience, coupled with Holtec’s proposed accelerated decommissioning time frame and the fact that it is seeking to oversee decommissioning work at multiple sites at the same time, jeopardizes Holtec’s abilities and increases the risk of a cost overrun. Pet. 23-24. And the NRC Staff’s information request on this issue reinforces this point and shows why a hearing is required.

Holtec’s statements that it is fully aware of all contamination at Pilgrim is belied by its plan to assess the site. Holtec plans to assess the site as the project advances. This iterative approach lends credence to the fact that unknown contamination will be discovered during the project. If Holtec knew the extent of all contaminants at Pilgrim currently, then an iterative assessment would not be necessary. This demonstrates the flaw in Holtec’s reasoning that the

26, 2019, <https://business.financialpost.com/commodities/mining/snc-dealt-another-blow-with-copper-mine-project-cancellation>.

⁴⁵ See generally, Ltr. from Exelon Generation, to NRC, *Application for Order Approving Direct Transfer of Renewed Facility Operating License and General License and Proposed Conforming License Amendment, Oyster Creek Nuclear Generating Station*, Docket Nos. 50-219 & 72-15, License No. DPR-16 (Aug. 31, 2018) (ADAMS Accession No. ML18243A489); NRC, *Request for Additional Information, License Transfer Request, Entergy Nuclear Operating, Inc., Pilgrim Nuclear Power Station* (Mar. 21, 2019) (ADAMS Accession No. ML19086A349).

⁴⁶ NRC, *Request for Additional Information, License Transfer Request, Entergy Nuclear Operating, Inc., Pilgrim Nuclear Power Station*, at 3 (Mar. 21, 2019) (ADAMS Accession No. ML19086A349).

current documentation regarding site contamination is sufficient. Regardless, Holtec does not appear to have adequately accounted for future discoveries in its cost estimate.⁴⁷

Regarding the possibility that DOE might require repackaging of spent nuclear fuel into new canisters, the Petition indicates, as supported by the Brewer Declaration, that *Entergy itself* has previously argued “that DOE has the authority to mandate licensees to repackage spent fuel into DOE-approved transportation casks.” Brewer Decl. ¶ 13; Pet. 14. The cited case indicates that as the Standard Contract is currently written, the licensee will have to repackage the spent nuclear fuel into DOE-approved transportation casks. *Systems Fuels, Inc. v. United States*, 818 F. 3d 1302, 1306-07 (Fed. Cir. 2016); Brewer Decl. ¶ 13. The Commonwealth does not dispute that Pilgrim’s spent nuclear fuel is currently being placed into multi-purpose canisters. The Commonwealth is, however, disputing that these multi-purpose canisters qualify as casks approved and supplied by DOE for transportation as outlined in the Standard Contract. *Id.*; see also 10 C.F.R. § 961.11. Absent a change to the Standard Contract, DOE “shall arrange for, and provide, a cask(s) and all necessary transportation of the SNF.” 10 C.F.R. § 961.11; Brewer Decl. ¶ 13. It will then be Holtec’s responsibility to “arrange for, and provide, all preparation, packaging, required inspections, and loading activities necessary for the transportation of [spent nuclear fuel] . . . to the DOE facility.” *Id.* Holtec’s cost estimate does not account for the activities required to load a bare-fuel DOE cask. While it is unknown at this time precisely what the cost will be to repackage the spent nuclear fuel into DOE-approved casks, it can be

⁴⁷ Holtec further asserts that its “decommissioning was compared to costs from similar activities from seven other decommissioned BWR nuclear power plants.” Answer 36, 42 (citing DCE at 37). However, the Commonwealth is not aware of any large commercial BWRs that have been decommissioned in this country, meaning that there is no existing domestic data, following NRC regulations, to benchmark decommissioning costs against. The Commonwealth is unable to confirm which seven BWR plants Applicants are referring to because they have not identified those BWR plants in their Answer. See Answer 36, 42; DCE at 37.

reasonably presumed that it will cost more than the \$3.615 million remaining in the Trust Fund at the end of Holtec's decommissioning cost estimate, which would lead to a shortfall.⁴⁸

In the alternative, if DOE does not require repackaging into new DOE-approved casks and instead accepts the spent nuclear fuel as-is, then DOE's position⁴⁹ will likely be to seek to recover the original spent nuclear fuel packaging costs paid by DOE to the licensee because, under the Standard Contract, it is the licensee's responsibility to package the fuel. 10 C.F.R. § 961.11; Brewer Decl. ¶ 14. Entergy has recovered about \$6 million for packaging spent nuclear fuel so far, which includes loading three casks and beginning work on five more. Brewer Decl. ¶ 14. Assuming a comparable cost for the balance, the cost to package the rest will run in the tens of millions because Holtec estimates that it will need to package and load at least forty-four additional casks.⁵⁰ If Holtec receives DOE reimbursement for these packaging costs, which is Holtec's assumption, Answer 23, yet DOE accepts the casks as-is, also Holtec's assumption, Brewer Decl. ¶ 14, then because the licensee is responsible for packaging costs, DOE could attempt to recover those initial packaging reimbursements from Holtec. This, too, is a reasonable outcome that Holtec has failed to account for in its DCE.

⁴⁸ Pilgrim's spent fuel pool will be dismantled by the time any repackaging will need to take place. Brewer Decl. ¶ 13. Thus, to repackage the fuel, it will need to be brought to another plant site with a spent fuel pool, or a Dry Transfer Station will need to be built at Pilgrim, which will cost approximately \$150 to \$450 million. *Id.* (citing U.S. Government Accountability Office, Nuclear Waste Management: Key Attributes, Challenges, and Costs for the Yucca Mountain Repository and Two Potential Alternatives 55 (GAO-10-48) (Nov. 2009), <https://www.gao.gov/assets/300/298028.pdf>.)

⁴⁹ *Cf. Systems Fuels, Inc.*, 818 F.3d at 1307 (DOE's position against paying original packaging costs is that modification of Standard Contract allowing DOE to accept casks as-is for transportation would place burden of original costs for packaging upon licensee).

⁵⁰ DCE at 25.

Regarding the possibility that DOE fails to remove the spent nuclear fuel by 2062, the Applicants still fail to explain their assumption that DOE will begin to accept Pilgrim's spent nuclear fuel in 2030. Pet. 18-19. The Applicants state that the timeline for DOE removal was based on "the DOE Acceptance Priority Ranking & Annual Capacity Report (Reference 10)" and DOE's "Strategy for the Management and Disposal of Used Nuclear Fuel and High Level Radioactive Waste" (Reference 9) ("Strategy for the Management and Disposal of Used Nuclear Fuel"). Answer 46 & n.134 (citing LTA, at 24). But neither of these sources actually indicates that DOE will begin removing fuel from Pilgrim in 2030. Indeed, the DOE Strategy for the Management and Disposal of Used Nuclear Fuel makes clear that the report "represents an initial basis for discussions among the Administration, Congress and other stakeholders on a sustainable path forward for disposal of nuclear waste," *id.* at 1, and its proposed plan to develop both a pilot interim storage facility and a larger interim storage facility depend on "appropriate authorizations from Congress," *id.* at 2. Congress, however, has not authorized such a plan or appropriated any money to-date to further it. Based on this fact, a recent Congressional Research Service report on the issue concluded that "longer on-site storage is almost a certainty." Congressional Research Service, *Civilian Nuclear Waste Disposal* 42 (2018); *see infra* pp. 37-38 (addressing issue in context of Contention II).

The Applicants also cite to *Entergy Nuclear Vermont Yankee*, CLI-16-17 for the proposition that, "with regard to the fuel-costs claim, ... [the Commission] finds the short-term period of storage most likely."⁵¹ While the Commonwealth disputes this prior finding,⁵² it

⁵¹ Answer 46-47 n.136 (citing *Entergy Nuclear Vermont Yankee*, CLI-16-17, at *12 (footnote omitted)).

⁵² The Commonwealth is not alone in this regard as the Atomic Safety and Licensing Board found in a separate proceeding regarding Vermont Yankee that "the indefinite storage of spent fuel on-site is a very possible outcome." *Entergy Nuclear Vermont Yankee, LLC* (Vermont

further undermines the reasonableness of Holtec's cost estimate because the short-term period of storage referenced by the NRC in *Entergy Nuclear Vermont Yankee* refers to section B-2 of Appendix B of NUREG-2157,⁵³ which states that "the NRC believes that the most-likely scenario is that a repository will become available to dispose of spent fuel by the end of the short-term timeframe (within 60 years of the end of a reactor's licensed life for operation)."⁵⁴ Applied to Pilgrim, the NRC approved the current facility operating license until June 8, 2032.⁵⁵ However, using the date that Pilgrim will cease operations of June 1, 2019, the short-term period of storage places the availability of a DOE repository at 2079.⁵⁶ This places the timeframe for DOE removal of spent nuclear fuel well beyond the Applicants' timeframe.⁵⁷

Yankee Nuclear Power Station), LBD-15-24, 2015 WL 5883370, at *12 (Aug. 31, 2015). While, as the Applicants note, that decision was later vacated as moot because Entergy withdrew the application that gave rise to the proceeding, *see In re Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), CLI-16-8, 83 N.R.C. 463 (June 2, 2016), the Commission has made clear that such decisions can still be cited as "persuasive authority." *Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), CLI-13-10, 2013 WL 9638165, at *3 n.42 (Dec. 4, 2013).

⁵³ *Vermont Yankee*, 84 N.R.C. at 118 n.86 (citing *Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel*, app. B, at B-2 (NUREG-2157) (2014)).

⁵⁴ *Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel*, App. B, at B-2 (NUREG-2157) (2014).

⁵⁵ LTA, Encl. 1 at 2.

⁵⁶ Despite the NRC's reliance on the short-term timeframe, the NRC stated that it "continues to believe that 25 to 35 years is a reasonable period for repository development (i.e., candidate site selection and characterization, final site selection, licensing review, and initial construction for acceptance of waste)." NUREG-2157, App. B, at B-8-B-9. The NRC published NUREG-2157 in September 2014. Thus, even assuming this shorter timeframe, which it should not, the earliest Applicants can expect a DOE repository available for Pilgrim's spent nuclear fuel is 2039, nearly a decade after the assumption in the LTA.

⁵⁷ Additionally, as stated above, *Vermont Yankee* deals with an exemption request, not a license transfer request. When the NRC approved the license transfer for Vermont Yankee, it required additional financial assurances, including a performance bond to cover DOE settlement funds and a support agreement of \$140 million. *NRC Staff Safety Evaluation, Vermont Yankee*, at 15-17.

This dispute in the timeframe of spent nuclear fuel removal is material because it jeopardizes the Applicants' financial ability to maintain the fuel. The Applicants suggest that this does not represent a genuine material dispute because Holtec could seek to recover from DOE the additional costs it will undoubtedly incur due to DOE's failure to remove all spent fuel from Pilgrim by 2062. Answer 47. However, as previously stated, even assuming Holtec could rely upon DOE reimbursement funds as financial assurance, Holtec has not made any commitment whatsoever to place DOE reimbursement funds back into the Trust Fund or even to hold those recoveries in a separate account to cover costs incurred at Pilgrim. Thus, even assuming Holtec does not incur the other spent fuel management-related costs outlined in the Commonwealth's Petition, because the estimated annual cost for managing spent nuclear fuel is approximately \$7.2 million,⁵⁸ and there is only a projected balance of \$3.615 million remaining in the Trust Fund after 2063,⁵⁹ if DOE delays removal of spent nuclear fuel by even a single year, which it will according to the NRC's analysis, Holtec's costs will exceed the remaining balance of the Trust Fund.

B. The Commonwealth Raises an Admissible Challenge to the No Significant Hazards Consideration.

The Commonwealth raises an admissible challenge to the NRC Staff's finding of "no significant hazards consideration" because the license amendment contains a substantive change: the proposed removal of the \$50 million contingency. The NRC's generic finding in 10 C.F.R. § 2.1315 states that, "any amendment to the license of a utilization facility or the license of an [ISFSI] which does no more than conform the license to reflect the transfer action, involves respectively, 'no significant hazards consideration,' or 'no genuine issue as to whether the health

⁵⁸ DCE at 46-47.

⁵⁹ DCE at 47.

and safety of the public will be significantly affected.” 10 C.F.R. § 2.1315. Contrary to the Applicants’ assertions, Answer 15-16, the Commonwealth is not challenging the NRC’s generic finding in this regulation. Instead, the Commonwealth is challenging the application of this finding to the LTA because the license amendment “does more than conform the license to reflect the transfer action.”

As stated in the Petition, the NRC included the \$50 million contingency fund requirement in 1999 as a condition of the approved transfer of Pilgrim’s operating license from Boston Edison Company to Entergy. Pet. 5. To the extent that this fund was not used for operating and maintenance expenses,⁶⁰ it was anticipated that it would be used for decommissioning costs. *See infra* pp. 31-32 (elaborating on basis for inclusion of \$50 million contingency license condition). When the operating license was renewed in 2012, this contingency fund condition was retained. Now, the Applicants quietly ask the Commission to remove this condition from the license. While the LTA itself is completely silent on the basis for this request, *see generally* LTA, the Applicants now state that removing this condition simply conforms the license to reflect the transfer because: (1) Entergy “is extinguishing its interest in and responsibility for Pilgrim,” and (2) Holtec Pilgrim and HDI will not be relying on any other form of financial assurances other than the Trust Fund. Answer 17.

The potential transfer of Pilgrim’s license from Entergy to Holtec and the resulting extinguishment of Entergy’s interests in Pilgrim does not necessitate the removal of this condition because Entergy is not implicated anywhere in this condition. The condition states:

[ENGCC] shall have access to a contingency fund of not less than fifty million dollars (\$50m) for payment, if needed, of Pilgrim operating and maintenance

⁶⁰ Applicants do not provide the current status of this contingency fund in the LTA and do not state that the fund has been used at all. The Commonwealth presumes from the Applicants’ Answer that this fund is still intact.

expenses, the cost to transition to decommissioning status in the event of a decision to permanently shut down the unit, and decommissioning costs. [ENG]C will take all necessary steps to ensure that access to these funds will remain available until the full amount has been exhausted for the purposes described above. [ENG]C shall inform the Director, Office of Nuclear Reactor Regulation, in writing, at such time that it utilizes any of these contingency funds. This provision does not affect the NRC's authority to assure that adequate funds will remain available in the plant's separate decommissioning trust fund(s), which [ENG]C shall maintain in accordance with NRC regulations. Once the plant has been placed in a safe-shutdown condition following a decision to decommission, [ENG]C will use any remainder of the \$50m contingency fund that has not been used to safely operate and maintain the plant to support the safe and prompt decommissioning of the plant, to the extent such funds are needed for safe and prompt decommissioning.

Nowhere in this condition is Entergy (that is, Entergy Corporation) or any of ENG]C's parent companies mentioned. This condition is expressly imposed on ENG]C and no other entity. And the legal entity currently known as ENG]C is not changing. Indeed, as the Applicants concede in the LTA, while "ENG]C will immediately change its name to Holtec Pilgrim, LLC . . . the same legal entity will continue to exist as the owner of Pilgrim before and after the transfer of control."⁶¹ Thus, the only "conforming" change to this condition necessitated by the potential transfer of the license is changing the name from ENG]C to Holtec Pilgrim.

Additionally, ENG]C/Holtec Pilgrim's decision to only rely upon the Trust Fund and no other supplement financial assurance is not an effect of the transfer—it is a conscious choice they made. The Applicants provide no reasonable connection between the transfer of indirect control of ENG]C/Holtec Pilgrim and the policy decision to only rely upon the Trust Fund. Accordingly, ENG]C/Holtec Pilgrim's unilateral view that this condition is no longer necessary is not "conform[ing] the license to reflect the transfer action," and the NRC's generic determination

⁶¹ LTA, cover letter, at 2. The proposed transaction would involve transferring 100 percent of the equity interests in ENG]C from ENG]C's parent companies to Holtec. *Id.* at 1-2. Thus, while indirect control of ENG]C will change, ENG]C itself will continue to exist and operate under its new name, Holtec Pilgrim. *Id.*

in 10 C.F.R. § 2.1315 does not apply. Moreover, as explained more fully below, the proposed removal of the \$50 million condition is substantive in nature and thus precludes reliance on the NEPA categorical exclusion to avoid consideration of the potential direct and indirect environmental consequences of the proposed action. This fact is significant in this context as well because the NRC must comply with NEPA before taking any action on the LTA or Exemption Request.

II. Contention II also Satisfies 10 C.F.R. § 2.309(f)(1)’s Admissibility Requirements.

“NEPA establishes environmental protection as an integral part of the . . . Commission’s basic mandate.”⁶² “The primary responsibility for fulfilling that mandate lies with the Commission.”⁶³ Accordingly, for the reasons stated in the Commonwealth’s Petition, *before* the Commission makes a decision, it “must itself take the initiative of considering” the potential environmental consequences of the entirety of the Proposed Action presented to it⁶⁴—a request to transfer Pilgrim’s license to an asset-less limited liability company and to eliminate an existing \$50 million contingency condition the NRC imposed to cover, in part, decommissioning costs, a request for an unconditional exemption to use Pilgrim’s Trust Fund for decommissioning, site restoration (including non-radiological decontamination), and spent fuel management (potentially indefinitely), and a PSDAR and DCE that propose to perform that work at a pace that has never before been achieved (or even attempted). This Proposed Action, as the Commonwealth explained in its Petition and explains further below, gives rise to a reasonably foreseeable possibility of a funding shortfall to fulfill the proposed licensee’s decommissioning,

⁶² *Calvert Cliffs’ Coordinating Comm. Inc. v. U.S. Atomic Energy Comm’n*, 449 F.2d 1109, 1114 (D.C. Cir. 1971).

⁶³ *Id.* at 1119.

⁶⁴ *Id.*

site restoration, and spent fuel management obligations and associated environmental, public health and safety, and economic effects. The Commonwealth is thus also entitled to a hearing on this Contention.

A. The Commonwealth, as the Applicants Tacitly Concede, is Not Challenging the Categorical Exclusion but Instead its Inapplicability to the Facts of this Case.

The Applicants' argument that Contention II constitutes "an impermissible challenge to 10 C.F.R. § 51.22(c)(21)" is unfounded. Answer 50. Indeed, in the very next paragraph the Applicants concede that the Commonwealth is not in fact challenging the legality of the categorical exclusion itself but is instead challenging whether that specific categorical exclusion "appl[ies] to the Pilgrim license transfer" at all, *id.*, and, if it does, whether special circumstances exist based on the facts of this case that preclude reliance on it, *id.* 52-53. Given their tacit concession, the Applicants' inconsistent claim is specious and must be summarily rejected just as it has been in other similar circumstances. *Entergy Nuclear Vt. Yankee, LLC* (Vermont Yankee Nuclear Power Station, CLI-16-17, 84 N.R.C. 99, 2016 WL 8729987, at *17 (Oct. 27, 2016) (ignoring NRC Staff's argument that Vermont's claim that granting exemption to Entergy to use Vermont Yankee's Decommissioning Trust Fund for spent nuclear fuel management costs was ineligible for cited categorical exclusion); *Pa'ina Hawaii, LLC*, LBD-06-4, 63 N.R.C. at 110 (rejecting applicant and NRC Staff arguments that contention regarding applicability of categorical exclusion constituted an improper challenge to categorical exclusion). Indeed, in *Entergy Nuclear Vt. Yankee, LLC*, the Commission rejected the argument, held the cited categorical exclusion did not apply, and directed the NRC staff to conduct an environmental assessment on the potential environmental consequences of granting Entergy an exemption to use Vermont Yankee's Decommissioning Trust Fund for non-decommissioning costs. *Entergy*

Nuclear Vermont Yankee, CLI-16-17, 2016 WL 8729987 at *18-19. For the reasons that follow, the same result is required here.

The Applicants' merits-based arguments fare no better than their procedural one. As an initial matter, the Applicants argue—for the first time—that eliminating the \$50 million contingency license condition for decommissioning costs is “required”—as that term is used in the categorical exclusion, 10 C.F.R. § 51.22(c)(21)—to approve the requested license transfer. Answer 51.⁶⁵ That is plainly wrong. Here, the only *required* change is the one the Applicants have proposed elsewhere in the license—substituting “Holtec Pilgrim” for “Entergy Nuclear” (ENGCO) in the \$50 million contingency license condition. *See* LTA Encl. 1, Attach. A, 1-5. Nothing about the transaction requires anything more than that *administrative* change, and, as the Commonwealth previously explained, but the Applicants completely ignore, that is the only type of “administrative amendment” that the categorical exclusion contemplates. Pet. 34 (quoting Streamlined Hearing Process for NRC Approval of License Transfers, 63 Fed. Reg. 66,721, 66,728 (Dec. 3, 1998)). While the Applicants, and Holtec in particular, clearly would prefer elimination of that condition, amending the license to effectuate that preference is neither mandated by the proposed transaction, nor administrative. Instead, it is “substantive in nature,”⁶⁶ because it eliminates \$50 million that would otherwise be available to fund decommissioning activities in the event of the funding shortfall the Commonwealth demonstrates is possible in Contention I. LTA Encl. 1, Attach. A, at 4 (Condition J (4)).

⁶⁵ The Applicants, again, failed to acknowledge this condition at all in their explanation for why NRC Staff should invoke the categorical exclusion in this case. LTA, Encl. 1, at 20.

⁶⁶ *See Entergy Nuclear Vermont Yankee*, CLI-16-17, 2016 WL 8729987 at *18.

Neither Holtec's reliance on the Trust Fund nor the history surrounding the \$50 million contingency condition justify a different conclusion.⁶⁷ Indeed, the historical basis for the condition provides further evidence of its substantive nature and, in fact, requires retaining it. Contrary to the Applicants' revisionist description, the Commission added the \$50 million contingency condition even though (i) "Entergy . . . ha[d] fulfilled its requirements under 10 CFR 50.33(f), 'to demonstrate to the Commission the financial qualification . . . to carry out . . . the activities for which the permit or license [was] sought,'"⁶⁸ and (ii) "ha[d] complied with the requirements in 10 CFR 50.75(b) with respect to the amount of decommissioning funds."⁶⁹ In other words, the NRC added that condition *in spite* of Entergy's satisfaction of the NRC's financial assurance requirements, and retained it when it renewed Pilgrim's license in 2012 for an additional twenty year period.⁷⁰ The Commission's reason for retaining the condition applies with even more force today because Holtec will have no source of revenue at all: Pilgrim's only source of revenue, as a merchant reactor, is selling power on the competitive wholesale market

⁶⁷ The fact, for example, as Entergy argues elsewhere is that Entergy International would no longer provide the funds to comply with this condition is true, but beside the point, Answer 17 n.62, because if the license is transferred, Holtec International or some other affiliate may provide the funds to satisfy Holtec Pilgrim's obligation.

⁶⁸ Safety Evaluation by the Office of Nuclear Reactor Regulation Proposed Transfer of Operating License and Materials License for Pilgrim Nuclear Power Station, Dkt. No. 50-293, at 9 (Apr. 29, 1999) (1999 Safety Evaluation), *in Order Approving the Transfer of Facility Operating License and Materials License for Pilgrim Nuclear Power Station, from Boston Edison Company to Entergy Nuclear Generation Company, and Approving Conforming Amendments*, Dkt. No. 50-293, Encl. 3 (Apr. 29, 1999) (ADAMS Accession No. ML011910099).

⁶⁹ *Id.* at 10.

⁷⁰ NRC, *Entergy Nuclear Generation Company and Entergy Nuclear Operations, Inc.*, Docket No. 50-293, *Renewed Facility Operating License*, Renewed License No. DPR-35, at 4, ¶ J(4) (May 29, 2012) (ADAMS Accession No. ML052720275). This is why the license condition itself indicates that examination of whether financial assurance exists occurs independent of the \$50 million contingency allowance. *Id.*

and any “extended shutdown or similar event,” as the staff wrote in 1999, would eliminate Entergy’s only additional source of money to maintain the plant safely.⁷¹ The NRC Staff’s position in that proceeding was consistent with the Commission’s general view, expressed three years earlier, that the advent of utility deregulation “may . . . require *additional* decommissioning funding assurance for those licensees that are no longer able to collect full decommissioning costs in rates or set their own rates.”⁷² It is undisputed here that neither Entergy nor Holtec can seek to secure additional funds through a rate proceeding. Further, because Pilgrim will no longer be operating, its only source of revenue, selling power on the wholesale market, will no longer exist. Thus, retaining this \$50 million contingency condition is even more important now to ensure Holtec’s financial assurance.

The Commonwealth also has, but does not need to, demonstrate that eliminating the \$50 million contingency condition may have potential environmental consequences. Answer 51.⁷³ That is because if the categorical exclusion does not apply, the NRC *must* conduct at least an environmental assessment to consider the potential direct and indirect environmental consequences of eliminating the license condition. *See* 10 C.F.R. § 51.22(b) (stating that an environmental assessment is *not* required only if the proposed action is covered by a categorical exclusion and special circumstances do not exist). The Commission’s decision in *Entergy Nuclear Vermont Yankee, LLC*, CLI-16-17 is instructive on this point. In that case, Entergy requested an exemption to use Vermont Yankee’s Decommissioning Trust Fund for non-

⁷¹ *Id.* at 10.

⁷² Decommissioning of Nuclear Power Reactors, 61 Fed. Reg. 39,278, 39,285 (Jul. 29, 1996) (emphasis added).

⁷³ *Cf. Jones v. Gordon*, 792 F.2d 821, 828 (9th Cir. 1986) (“An ‘agency cannot . . . avoid its statutory responsibilities under NEPA by merely asserting that an activity it wishes to pursue will have an insignificant effect on the environment.’” (quotation omitted)).

decommissioning costs. 2016 WL 8729987, at *18-19. However, the Commission held that the categorical exclusion the NRC Staff relied on to grant the exemption *did not apply* and “direct[ed] the Staff to conduct an environmental assessment to examine the environmental impacts.” *Id.* The Commission reached that conclusion despite having already found on the facts of that case that adequate decommissioning funds would exist even if the exemption were granted and without making any finding that allowing the exemption would cause environmental impacts. *Id.* And the Commission reached that decision, because, as the agency’s regulations dictate and as NEPA requires, the Commission must prepare at least an environmental assessment to assess what potential environmental consequences may flow from an action that does not fit within a categorical exclusion. 10 C.F.R. § 51.22(b); *Wilderness Watch v. Mainella*, 375 F.3d 1085, 1096 (11th Cir. 2004) (finding agency violated NEPA where proposed action did not fit within categorical exclusion).

Even if the categorical exclusion did apply in this case, which it clearly does not, contrary to Applicants’ allegations, there is a genuine, material dispute as to whether special circumstances exist in this case that would preclude the NRC Staff’s reliance on the cited categorical exclusion. Answer 53.⁷⁴ It is beyond dispute that a decommissioning trust fund shortfall may pose significant environmental and public health and safety consequences. *See generally, e.g.*, General Requirements for Decommissioning Nuclear Facilities, 53 Fed. Reg. 24,018, 24,033 (June 27, 1988). Indeed, for this reason, the Commission long ago emphasized that a “*high degree* of assurance is required from the nuclear facility licensee that adequate funds

⁷⁴ The Applicants misleadingly suggest that the Commonwealth claimed that the Council on Environmental Quality’s regulation requiring federal agencies to provide for extraordinary circumstances, which, when present, preclude reliance on a categorical exclusion sets the standard for showing when “special circumstances” exist under the NRC’s regulations. Not so, as the Commonwealth’s Petition makes clear. Pet. 33.

are available to decommission the facility” so that the agency can comply with its “responsibility to protect public health and safety.” Decommissioning Criteria for Nuclear Facilities; Notice of Availability of Draft Generic Environment Impact Statement, 46 Fed. Reg. 11,666, 11,667 (Feb. 10, 1981) (emphasis added).⁷⁵ And the Applicants’ argument that the Commonwealth has “raised no material dispute with” the Applicants’ financial assurance showing is incongruous with the Commonwealth’s first Contention, which focuses exclusively on a myriad of ways in which Holtec could exceed, by significant margins, the amount of money in the Trust Fund—Holtec’s only claimed and committed source of money. Pet. 7-24; *supra* pp. 17-25. Indeed, the Applicants circuitous attempt to explain why eliminating the \$50 million contingency condition is irrelevant highlights that existence of an actual, material dispute of fact, which, as they know, cannot be resolved at the contention admissibility phase.⁷⁶

B. The Commonwealth has Presented Adequate Factual Support and Expert Opinion to Raise a Genuine Dispute on Contention II.

NEPA, the Council on Environmental Quality’s NEPA regulations, which are binding on the NRC, and longstanding precedent all make clear that NEPA establishes “‘a set of action-forcing procedures’ requiring federal agencies to take a ‘hard look’ at any *potential* environmental consequences associated with their ‘. . . actions’ and to broadly disseminate

⁷⁵ This requirement flows directly from Atomic Energy Act (AEA), which dictates that decommissioning trust funds are the means by which the NRC complies with its obligation to ensure that a licensee has the financial means to decontaminate its site and “provide adequate protection to the health and safety of the public.” 42 U.S.C. §§ 2201(x)(1), 2232(a).

⁷⁶ See *Pa’ina Hawaii, LLC*, 63 N.R.C. at 111. The Applicants, for example, make the circular and nonsensical argument that because the Commission must make a *future* determination that Holtec’s has satisfied the NRC’s financial assurance requirements the Commonwealth cannot *now* demonstrate the existence of a “material dispute with those assurances.” Answer 53. If that were the rule, no party could ever demonstrate the existence of a material dispute, because the Commission’s own authority as final arbiter would always displace a party’s ability to do so.

relevant environmental information.”⁷⁷ The corollary rule reinforces NEPA’s scope: “[i]gnoring possible environmental consequences will not suffice.”⁷⁸ Of course, as the Applicants suggest, federal agencies may properly find no significant impact exists where their assessment concludes that the probability of an impact “is so low as to be ‘remote and speculative,’”⁷⁹ but the Applicants ignore the fact that first “an agency must look at both the probabilities of potentially harmful events and the consequences if those events come to pass” before making a finding of no significant impact.⁸⁰ At this point, the Commonwealth’s Contention concerns the first step, and the legal obligation to undertake that consideration in this case, not the second step, which concerns what the NRC may conclude once it considers the potential environmental consequences of the proposed action.

NEPA also does not allow parties to isolate parts of a proposed action, as the Applicants try to do here, for purposes of considering whether an environmental assessment or environmental impact statement is required. Instead, “[p]roposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement.” *See* 40 C.F.R. § 1502.4(a). In this case, as is made clear by the Commonwealth’s Contention, Pet. 27 ¶ 32, the Applicants have proposed an action, i.e., the transfer and amendment of Pilgrim’s license, that depends on and is influenced and informed by two other integrally related proposals: Holtec’s Exemption Request and Holtec’s PSDAR and

⁷⁷ *Government of Province of Manitoba v. Zinke*, 849 F.3d 1111, 1115 (D.C. Cir. 2017) (emphasis added); *see also, e.g., Nkihtaqmikon v. Impson*, 585 F.3d 495, 497 n.2 (1st Cir. 2009) (“NEPA requires federal agencies to assess the potential environmental consequences of actions that might detrimentally affect ‘the quality of the human environment.’”).

⁷⁸ *Found. on Econ. Trends v. Heckler*, 756 F.2d 143, 157 (D.C. Cir. 1985).

⁷⁹ *New York v. Nuclear Regulatory Comm’n*, 681 F.3d 471, 478 (D.C. Cir. 2012).

⁸⁰ *Id.*

DCE.⁸¹ Thus, to grant the requested action, the NRC must find that Holtec has demonstrated the financial ability to perform all of the described work. That determination turns on the activities in Holtec's PSDAR and DCE, whether Holtec has reasonably estimated what that work will cost, and whether there are adequate funds in the Trust Fund to cover all of those costs.

While the Commonwealth agrees, as a general matter, that where the only matter before the Commission is a PSDAR and DCE, the NRC has revised its regulations in an attempt to avoid triggering NEPA review. *See* Answer 59-60. Here, however, Holtec's PSDAR and DCE are not the only matters before the Commission; instead, they were submitted to support the Applicants' license transfer request and the Exemption Request. Nor, for that matter, does Holtec's PSDAR and DCE focus solely on decommissioning—they also cover site restoration and spent fuel management. *See supra* p. 1 n. 2. And contrary to the Applicants' argument, Answer 59-61, the Commonwealth is not challenging the NRC's regulations, but it is instead arguing that *in this case*, where the PSDAR and DCE are the foundation for the license transfer and amendment request and the Exemption Request, the PSDAR and DCE cannot be walled-off from NEPA review.

The Applicants do not dispute that a funding shortfall either during decommissioning or following decommissioning, when spent nuclear fuel will remain on site, could have potential adverse environmental, public health and safety, and economic consequences. Instead, the Applicants' efforts to show that Contention II is inadmissible rely largely on the same basic, yet flawed and conclusory assertions they use to contest Contention I: (1) the NRC's trust fund withdrawal oversight and ability to demand additional financial assurances in the future, and (2)

⁸¹ In this case, the name Decommissioning Cost Estimate is a misnomer, because Holtec's cost estimate also covers site restoration and spent fuel management costs—activities that the Applicants concede do not constitute decommissioning activities. DCE at 8.

either separately or together, Holtec's purported ability to recover \$500 million in spent fuel costs from DOE prove that there cannot be a funding shortfall. *E.g.*, Answer 54-58. These two flawed assertions, however, demonstrate the existence of a genuine dispute on a material issue, which requires an in-depth inquiry.⁸² Neither of these assertions contravene the Commonwealth's contention.

NRC Financial Assurance Oversight

The Applicants' first point suffers from at least two fatal flaws. First, even assuming *arguendo* that the NRC's annual oversight will ensure adequate funds to decommission and restore the site, that process is aimed expressly at decommissioning, not ensuring adequate funds for spent fuel management and non-radiological remediation. 10 C.F.R. § 50.82(a)(8)(iv). In its Petition, the Commonwealth identified numerous additional, unaccounted for costs that if properly accounted for, would cause Holtec's DCE to exceed the amount available in the Trust Fund. Pet. 7-24. While some of those costs arise only if the spent fuel is not removed from the site by 2062, those costs, too, are relevant both for Contention I and Contention II. The Applicants' argument that Holtec need not account for those possible costs relies exclusively on the Commission's finding that it is reasonable to rely on Continued Storage Rule's finding that "the short-term period of storage is most likely."⁸³ Answer 46-47, 56. But, as described above, what the Applicants fail to note is that the "short-term period" analyzed in the Continued Storage Rule was sixty-years from the end of licensed operations⁸⁴—a period that extends *seventeen*

⁸² *Gulf States Utils. Co.*, 40 N.R.C. at 51.

⁸³ *Entergy Nuclear Vermont Yankee*, CLI-16-17, 2016 WL 8729987, at *12.

⁸⁴ I U.S. NRC, *Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel*, at App. B, at B-2 (NUREG-2157) (2014).

years beyond when Holtec estimates DOE will have removed all spent nuclear fuel from Pilgrim.⁸⁵

Significantly, the Applicants also fail to note that this prior finding was made in the context of a request for an exemption to use Vermont Yankee's Trust Fund for spent fuel management costs, not in the context of NEPA, which requires the Commission to consider potential environmental consequences from possible outcomes.⁸⁶ While the Commonwealth does not agree that this finding was reasonable even in that context, it certainly is unreasonable in the NEPA context.⁸⁷ Indeed, even in *Entergy Nuclear Vermont Yankee*, CLI-16-17, the Commission acknowledged that the "the Continued Storage generic environmental impact statement acknowledges for purposes of NEPA that fuel could remain on site indefinitely," 2016 WL 8729987, at *12, and, significantly, the U.S. Court of Appeals for the D.C. Circuit previously held that the Commission's refusal to engage with the possible environmental

⁸⁵ DCE at 24.

⁸⁶ See *Entergy Nuclear Vermont Yankee*, CLI-16-17, 2016 WL 8729987, at *12. The Applicants also fail to note that the Commission's later Order approving the transfer of Vermont Yankee's license from Entergy to another party substantially repudiated this finding. There, unlike in *Entergy Nuclear Vermont Yankee*, CLI-16-17, 2016 WL 8729987, at *12, the Commission, after a more complete analysis, required substantial additional decommissioning and spent fuel management financial assurances as a condition of granting the license transfer request. Order Approving the Transfer of License and Conforming Amendment at 6-7, *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), Dkt. Nos. 50-271 & 72-59 (Oct. 11, 2018) (ADAMS Accession No. ML18248A096).

⁸⁷ The most current analysis of this issue also undermines the Applicants baseless optimism for early spent fuel removal. In September 2018, the Congressional Research Service, after carefully analyzing current efforts to fund and construct a federal repository, concluded that "longer on-site storage is almost a certainty." Congressional Research Service, *Civilian Nuclear Waste Disposal* 42 (2018).

consequences of indefinite spent fuel storage violated NEPA.⁸⁸ It would be equally unlawful to do so here.

The second fatal flaw in the Applicants' first point, *see supra* p. 36, is that the Applicants' claim that the NRC's ability to require additional financial assurance in the event of a future predicted or actual shortfall or to unilaterally adjust funding rings equally hollow. Contrary to the Applicants' argument, the Commonwealth is not "challenging the Commission regulations that take a year-by-year, real time approach to ensuring the adequacy of decommissioning funds," Answer 57. It is instead disputing the Commission's ability to secure additional funds from Holtec absent an actual regulatory commitment by Holtec to provide those funds if required and a concrete showing of how Holtec would fulfill that commitment if called upon to do so. Holtec, however, has steadfastly and carefully avoided making such commitments in the LTA, the Exemption Request, the PSDAR and DCE, or in its Answer to the Commonwealth's Petition. Holtec's obfuscation on this issue is telling and Holtec cannot therefore rely on the NRC's ability to require additional financial assurance to contravene the Commonwealth's showing on this issue. Holtec responds by pointing out that limited liability companies are common, Answer 49, but that is beside the point. The point, again, is that Holtec itself will enjoy *no* source of revenue to compensate for any shortfall, Holtec has made no regulatory commitment to use another source of funds (or a parental guarantee), and its status as a limited liability company will make it extremely difficult, if not impossible, to reach beyond it to a parent entity to secure additional funding in the event of a shortfall—an extremely concerning circumstance in the context of nuclear power plant decommissioning and potentially indefinite onsite management of spent nuclear fuel.

⁸⁸ *New York*, 681 F.3d at 478-79.

Possible Holtec Recovery of Spent Fuel Management Costs

The Applicants' second point—Holtec's purported ability to recover \$500 million in spent fuel costs from DOE—fares no better than its first one. Stated simply, without a clear regulatory commitment by Holtec to use spent fuel costs recovered from DOE, there is a significant risk that Holtec will not have the funds necessary to decommission the facility, restore the site, and safely manage spent nuclear fuel. Answer 56-57; *see also id.* at 24, 34. For that reason, what the Commonwealth said in its Petition remains true: Holtec has failed to “commit to placing the funds it recovers . . . from DOE back into the Decommissioning Trust Fund . . . or even to make all of those funds available to cover a potential shortfall in the . . . Trust Fund prior to license termination.” Pet. 26; *see also id.* at 2 n.3, 36.

The Applicants also ignore the fact that the NRC generally does not allow licensees to rely on potential DOE litigation-based recoveries to satisfy the NRC's financial assurance requirements, because those recoveries are not guaranteed.⁸⁹ In the recent Vermont Yankee license transfer proceeding, for example, the Commission refused to credit the proposed licensees' possible litigation-based recoveries from DOE.⁹⁰ While the Commission agreed to consider those recoveries if they were paid under the more certain circumstance of a settlement agreement, even then, the NRC required the licensee to “obtain a[n] [annual] performance bond”

⁸⁹ Cf. 10 C.F.R. § 50.75(e)(iii)(A) (chosen method of financial assurance must “guarantee that decommissioning costs will be paid”). For its part, Entergy has itself previously acknowledged that it “understands the NRC Staff's position” that such assumptions are not recognized as financial assurance.” Entergy, *Response to NRC's Request for Additional Information to Support the Review of the Vermont Yankee Nuclear Power Station Update to VY Spent Fuel Management Plan (TAC No. MEI 152)*, dated May 20, 2009, Bvy 09-048 (Aug. 18, 2009) (ADAMS Accession No. ML092370298).

⁹⁰ Order Approving the Transfer of License and Conforming Amendment at 6-7, *In re Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), Dkt. Nos. 50-271 & 72-59 (Oct. 11, 2018) (ADAMS Accession No. ML18248A096).

if a settlement agreement was not finalized by a certain date.⁹¹ The Commission, supported by NRC Staff's analysis, imposed that condition even though the licensee there had "committed to limiting any access to" the Trust Fund for spent fuel costs "to \$20 million on a 'revolving' basis *and* to return [DOE] recoveries . . . to the trust fund."⁹² In this case, of course, Holtec proposes to draw \$500 million from the Trust Fund and has refused to commit to even holding a single penny of any DOE recovery for use at Pilgrim.

Generic Environmental Impact Statement Relevance to Proposed Action

The Applicants also fail to seriously dispute the Commonwealth's argument that the NRC has not previously considered the potential environmental consequences of the unique action pending before the Commission—a request to transfer a license to a new entity for purposes of decommissioning, site restoration, and long-term spent fuel management *and* a request for an unconditioned exemption to use the Trust Fund to cover all of those costs. To be sure, the NRC considered the potential environmental consequences of activities associated with decommissioning a nuclear power plant in its *Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities* (NUREG-0586) (Supp. 1 2002) (ADAMS Accession No. ML023470304). But, as the Applicants' largely acknowledge, Answer 63, that Generic Environmental Impact Statement (GEIS) did not consider the potential environmental consequences of non-decommissioning activities, such as spent fuel management, or of the potential environmental consequences of withdrawing money from a decommissioning trust fund to pay for spent fuel or non-radiological cleanup costs. *Id.* at 1-5 to 1-6, 4-12; *see also Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities* at App. O, at 101

⁹¹ *Id.*

⁹² *NRC Staff Safety Evaluation, Vermont Yankee* at 11.

(NUREG-0586) (Supp. 1 2002) (ADAMS Accession No. ML023500211). Similarly, as the Applicants note, Answer 63, the NRC considered the potential environmental consequences of continued onsite storage of spent nuclear fuel in the GEIS for the Continued Storage Rule.⁹³ But that GEIS did not clearly consider the potential environmental consequences of a funding shortfall or how to prioritize funding where there is only one committed funding source for decommissioning, site restoration, and spent fuel management with no other available or committed source of money.⁹⁴ It simply cannot be the case that the current, segmented approach to considering the potential environmental consequences of the proposed action—a categorical exclusion for the license transfer application and amendment, a proposed Environmental Assessment for the Exemption Request, and a bounding-analysis for the PSDAR and DCE—is lawful under NEPA. Indeed, it does not even make sense.

Climate Change Relevance to Proposed Action

Finally, the Applicants misunderstand the Commonwealth’s argument regarding climate change, stating that “the Commonwealth’s climate-change allegations *appear* to be focused on how the environment might impact the site.” Answer 61 (emphasis added). But, in fact, the Commonwealth’s point relates to how the increasingly frequent and devastating impacts of climate change “will impact site decommissioning, site restoration, and spent fuel management *activities*” at Pilgrim—a facility, sitting directly on the coast, that will enjoy no buffer from those increasingly severe impacts. Pet. 38 ¶ 52 (emphasis added). In other words, the Commonwealth’s argument focuses on how the existing environmental risks posed by those activities will be exacerbated by climate change impacts either directly through increased runoff

⁹³ *Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel* § 4.18 (NUREG-2157) (2014).

⁹⁴ *See generally id.*

and erosion caused by the increasingly intense rainstorms and coastal flooding across the northeast, for example, or indirectly through work delays that increase the risk of a funding shortfall for decommissioning, site restoration, or spent fuel management, for example. While the Commonwealth acknowledges that completing the decommissioning and site restoration work on an accelerated basis may mitigate those risks to a certain degree, that does not alter the fact that the 2002 Decommissioning GEIS does not address those risks at all, *see generally* 2002 GEIS § 4.0, and the 2013 GEIS for License Renewal of Nuclear Plants. The GEIS considers climate change, but not in the context of decommissioning and site restoration. Pet. 40 (citing I NRC, *Generic Environmental Impact Statement for License Renewal of Nuclear Plants* (NUREG-1437) (Rev. 1 2013) (ADAMS Accession No. ML13106A241)). Those key points remain undisputed, and a hearing on this Contention is required for all of the reasons noted here and the additional ones noted in its Petition.

CONCLUSION

For these reasons, the Board should grant the Commonwealth's petition to intervene and the Commonwealth's associated hearing request.

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Respectfully submitted,

COMMONWEALTH OF MASSACHUSETTS

By their attorneys,

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Signed (electronically) by

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Dated: April 1, 2019

19-04.01 [3] - Reply of in Supp. of Pet. (Pilgrim) [fnl].docx

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of)	
)	
ENTERGY NUCLEAR OPERATIONS, INC.,)	
ENTERGY NUCLEAR GENERATION)	
COMPANY, AND HOLTEC)	
DECOMMISSIONING INTERNATIONAL,)	Docket Nos. 50-293 & 72-1044
LLC; CONSIDERATION OF APPROVAL OF)	
TRANSFER OF LICENSE AND)	
CONFORMING AMENDMENT)	
)	
(Pilgrim Nuclear Power Station))	

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I certify that copies of the Commonwealth of Massachusetts's Petition for Leave to Intervene and Hearing Request and the Five attached Declarations have been served upon the Electronic Information Exchange, the NRC's e-filing system, in the above-captioned proceeding this 1st day of April, 2019.

Signed (electronically) by
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Dated: April 1, 2019

No. 19-1198

Federal Respondents' Combined Motion to Dismiss
and Response to Petitioner's Stay Motion

Exhibit 10

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC.,
ENTERGY NUCLEAR GENERATION
COMPANY, HOLTEC INTERNATIONAL, and
HOLTEC DECOMMISSIONING
INTERNATIONAL, LLC

(Pilgrim Nuclear Power Station)

Docket No. 50-293-LT
72-1044

NOTIFICATION

The U.S. Nuclear Regulatory Commission Staff is filing this notification to inform all participants that the Staff provided the Commission with a Notification of Significant Licensing Action stating that, on or about August 21, 2019, the Staff intends to issue an order approving the direct transfer of control of the Renewed Facility Operating License No. DPR-35 for the Pilgrim Nuclear Power Station from Entergy Nuclear Operations, Inc., to Holtec Decommissioning International, LLC (HDI). The order would also provide for the indirect transfer of the ownership interest of Entergy Nuclear Generation Company, which will be renamed Holtec Pilgrim, LLC, to Holtec International. Simultaneously with the license transfer order, the Staff intends to grant an exemption to Holtec Pilgrim and HDI related to the use of funds from the decommissioning trust fund for spent fuel management and site restoration activities. The NSLA is attached.

Respectfully submitted,

/Signed (electronically) by/

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC.,
ENTERGY NUCLEAR GENERATION
COMPANY, HOLTEC INTERNATIONAL, and
HOLTEC DECOMMISSIONING
INTERNATIONAL, LLC

(Pilgrim Nuclear Power Station)

Docket No. 50-293-LT
72-1044

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I hereby certify that copies of the foregoing notification, dated August 13, 2019, have been filed through the Electronic Information Exchange, the NRC's E-Filing System, in the above-captioned proceeding, this 13th day of August 2019.

/Signed (electronically) by/

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 13, 2019

OFFICE OF NUCLEAR REACTOR REGULATION

NOTIFICATION OF SIGNIFICANT LICENSING ACTION

LICENSEE: Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
Docket Nos. 50-293 and 72-1044

SUBJECT: PROPOSED ISSUANCE OF AN ORDER APPROVING A LICENSE TRANSFER
APPLICATION FOR WHICH A HEARING HAS BEEN REQUESTED
(EPID L-2018-LLO-0003)

This is to inform the Commission that an order approving (1) the direct transfer of control of the Renewed Facility Operating License No. DPR-35 for the Pilgrim Nuclear Power Station (Pilgrim), and its general license for the Pilgrim Independent Spent Fuel Storage Installation, from Entergy Nuclear Operations, Inc., to Holtec Decommissioning International, LLC (HDI) as the operator for decommissioning, and (2) the indirect transfer of Entergy Nuclear Generation Company's (to be renamed Holtec Pilgrim, LLC) ownership interests in the facility to Holtec International (Holtec), will be issued on or about August 21, 2019. This action is being taken in response to the license transfer application dated November 16, 2018, as supplemented on November 16, 2018, April 17, 2019, and July 29, 2019. The U.S. Nuclear Regulatory Commission (NRC) will issue a regulatory exemption to Holtec Pilgrim, LLC and HDI related to the use of funds from the Pilgrim decommissioning trust fund for spent fuel management and site restoration activities simultaneously with the license transfer order. The NRC also plans to issue a conforming amendment for the facility operating license for administrative purposes to reflect the approved license transfer after consummation of the license transfer transaction.

The NRC received two hearing requests on the license transfer application from the Commonwealth of Massachusetts and Pilgrim Watch on February 20, 2019. On April 24, 2019, the Commonwealth of Massachusetts filed a motion to supplement its hearing request. On April 26, 2019 and May 9, 2019, Pilgrim Watch filed motions to supplement its hearing request. On July 16, 2019, Pilgrim Watch submitted a motion to file a new contention. On August 1, 2019, the Commonwealth of Massachusetts filed a motion to stay the license transfer proceeding for 90 days to permit the completion of settlement negotiations. These requests are pending before the Commission. The hearing, if granted, will not be completed prior to approval of the license transfer application. The order approving the transfer will include a condition that the NRC staff's approval of the license transfer is subject to the Commission's authority to

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rescind, modify, or condition the approved transfer based on the outcome of any post-effectiveness hearing on the license transfer application. See *Susquehanna Nuclear, LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-17-4, 85 NRC 59, 61 n.5 (Mar. 24, 2017); *Power Auth. of the State of N.Y.* (James A. FitzPatrick Nuclear Power Plant), CLI-01-14, 53 NRC 488, 502, 554–55 (2001) (citing *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-92-4, 35 NRC 69, 80 n.7 (1992)).

The Commonwealth of Massachusetts was notified on August 13, 2019, that the NRC intends to issue the Order approving the transfer and the conforming amendment and grant the exemption for the use of the decommissioning trust fund for spent fuel management and site restoration activities.

SUBJECT: PROPOSED ISSUANCE OF AN ORDER APPROVING A LICENSE TRANSFER
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(EPID L-2018-LLO-0003) DATED: August 13, 2019

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