December 13, 2011

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board Panel

In the Matter of	)	
	)	
Entergy Nuclear Generation Company and	)	Docket No. 50-293-LR
Entergy Nuclear Operations, Inc.	)	ASLBP No. 06-848-02-LR
	)	
(Pilgrim Nuclear Power Station)	)	

ENTERGY'S ANSWER OPPOSING PILGRIM WATCH REQUEST FOR HEARING ON A NEW CONTENTION REGARDING INADEQUACY OF ENVIRONMENTAL REPORT, POST-FUKUSHIMA

I. INTRODUCTION

Entergy Nuclear Generation Company and Entergy Nuclear Operations, Inc. (collectively "Entergy") hereby oppose the Pilgrim Watch Request For Hearing on A New Contention Regarding Inadequacy of Environmental Report, Post-Fukushima, submitted on November 18, 2011 ("PW Request").[1] Pilgrim Watch alleges that the Environmental Report ("ER") supporting the Pilgrim Nuclear Power Station ("PNPS" or "Pilgrim") license renewal is inadequate because the ER's severe accident mitigation alternatives ("SAMA") analysis was performed using the MELCOR Accident Consequence Code System Version 2 ("MACCS2"), which does not model and analyze aqueous transport and dispersion of radioactive materials. PW Request at 1. Pilgrim Watch asserts that such modeling and analysis must be performed in light of the Fukushima accident, which Pilgrim Watch claims shows that "enormous quantities of contaminated water are likely to enter Cape Cod Bay" and result in consequences that must be considered in the SAMA analysis. PW Request at 1-3.

[1] Appended to the PW Request (at Exhibit 1) is Declaration of Arnold Gundersen (Nov. 17, 2011) ("Gundersen Decl.").

Pilgrim Watch's Request should be denied for multiple reasons. Foremost, the request is not timely. Pilgrim Watch's claims regarding the alleged failure of the MACCS2 code to model the aqueous transport and dispersion of radioactive materials could have been raised at the outset of this proceeding. Since the inception of the predecessor to the MACCS2 code in 1990, it has been clear that the code models and analyzes the consequences of atmospheric releases – and not aqueous releases – stemming from a severe reactor accident. Indeed, Pilgrim Watch's own expert (Mr. Chanin) has testified in this proceeding as far back as 2007 that the "state-of-the-art" MACCS2 code models the consequences resulting from atmospheric radiological releases. For these and other reasons, Pilgrim Watch's Request is not timely and therefore fails to satisfy the Commission's reopening and late-filed standards.

Further, neither the Request nor the appended Gundersen Declaration meets the remaining standards for reopening a closed record to litigate a new contention.[2] As with Pilgrim Watch's previous Fukushima-related contentions (which the Board has rejected[3]), this contention does not raise a significant safety or environmental issue, let alone any grave issue required for considering untimely raised issues. For reasons further discussed herein, a Fukushima-type accident is highly unlikely at Pilgrim, and furthermore, the estimated consequences from large atmospheric releases postulated in the Pilgrim SAMA analysis are far greater than potential consequences resulting from the low probability aqueous releases at issue in Pilgrim Watch's

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[2] Attached to this Answer is the Declaration of Mr. Joseph R. Lynch and Dr. Kevin R. O'Kula in Support of Entergy's Answer Opposing Pilgrim Watch Request For Hearing on A New Contention Regarding Inadequacy of Environmental Report, Post-Fukushima (Dec. 13, 2011) ("Entergy Declaration" or "Entergy Decl."). Among other things, Mr. Lynch and Dr. O'Kula show that Pilgrim Watch's Request is not timely, fails to raise a significant environmental or safety issue, and fails to demonstrate that a materially different result would be likely under 10 C.F.R. § 2.326(a)(i)-(iii), the criteria for reopening a closed record.

[3] Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-11-23, 74 N.R.C. __, slip op. (Sept. 8, 2011) ("LBP-11-23"). The Board has also rejected the Fukushima-related contention raised by the Commonwealth of Massachusetts. Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-11-35, 74 N.R.C. __, slip op. (Nov. 28, 2011) ("LBP-11-35").

contention.[4] Thus, the fact that the MACCS2 code's modeling assumes that the source term for a particular accident scenario is released to the atmosphere, rather than some portion of the source term being released into the water, means that the consequences derived from the Pilgrim SAMA analysis using the MACCS2 code are far greater than any consequences that would result from the aqueous releases asserted in Pilgrim Watch's contention. Furthermore, Entergy has previously explained that the Pilgrim SAMA analysis considers the consequences of atmospheric radiological releases far greater than those that have occurred for the three damaged Fukushima reactors combined.

Thus, Pilgrim Watch has raised no issue that paints a seriously different picture of the environmental landscape than that already considered in the Pilgrim SAMA analysis. For similar reasons, Pilgrim Watch and Mr. Gundersen fail to demonstrate that a materially different result (i.e., a change in the results of the Pilgrim SAMA analysis) would be likely had the proffered information been considered.

The Request also fails to meet the standards for an admissible contention because it raises current licensing basis issues that are outside the scope of this proceeding, and otherwise fails to demonstrate a genuine dispute with the Pilgrim license renewal application by failing to assert deficiencies that would, if accounted for as requested by Pilgrim Watch, alter the result of the Pilgrim SAMA analysis. As such, the Request should be denied on these grounds as well.

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[4] See Entergy Decl. at ¶¶ 41-52. As discussed there, for the same quantity of radioactive material, atmospheric releases will result in much larger consequences that aqueous releases.

II. BACKGROUND

A. STATEMENT OF CASE

This proceeding involves the application submitted by Entergy in January 2006 seeking renewal of the operating license for Pilgrim ("Application").[5] On May 25, 2006, Pilgrim Watch filed an intervention petition seeking the admission of five contentions.[6] This Board admitted two of the five contentions proffered by Pilgrim Watch – Contention 1 relating to buried piping, and Contention 3 challenging certain input data used in the Pilgrim SAMA analysis.[7]

The NRC Staff reviewed the Application and issued the final environmental impact statement ("FEIS") in July 2007[8] and the final safety evaluation report ("SER") in November 2007.[9] Following summary disposition of Contention 3,[10] the Board held a hearing on Contention 1 and then closed the evidentiary record on that contention.[11] It then issued a decision resolving that remaining contention in Entergy's favor and terminating the proceeding.[12]

In CLI-10-11, the Commission reversed the summary disposition of the portion of Contention 3 that raised meteorological modeling issues associated with the SAMA analysis.[13] The Commission therefore remanded Contention 3, "as limited by [its] ruling," to the Board for

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[5] See 71 Fed. Reg. 15,222 (Mar. 27, 2006).

[6] Request for Hearing and Petition to Intervene by Pilgrim Watch (May 25, 2006) ("Petition to Intervene").

[7] Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-06-23, 64 N.R.C. 257, 349 (2006).

[8] NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 29 Regarding Pilgrim Nuclear Power Station (July 2007) ("NUREG-1437").

[9] NUREG-1891, Safety Evaluation Report Related to the License Renewal of Pilgrim Nuclear Power Station (Nov. 2007).

[10] Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-07-13, 66 N.R.C. 131 (2007).

[11] Memorandum and Order (Ruling on Pilgrim Watch Motions Regarding Testimony and Proposed Additional Evidence Relating to Pilgrim Watch Contention 1) (June 4, 2008) at 4.

[12] Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-08-22, 68 N.R.C. 590, 610 (2008).

[13] Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-11, 71 N.R.C. __, slip op. at 14, 18 (Mar. 26, 2010) ("CLI-10-11").

hearing.[14] In CLI-10-14, the Commission denied Pilgrim Watch's request for review of all other Licensing Board decisions that Pilgrim Watch had challenged on appeal.[15]

Following this limited remand, Pilgrim Watch sought repeated delays in the scheduling of the hearing on the remanded issues while it sought unsuccessfully to expand the scope of the remand to include issues never raised as part of its contention and issues that had already been resolved. See, e.g., CLI-10-15[16] (denying Pilgrim Watch motion for reconsideration); CLI-10-28[17] (denying Pilgrim Watch motion for clarification). Eventually, in CLI-10-28, the Commission stated:

> We remanded contention 3 to the Board in March 2010. We expect the Board to make full use of its broad authority under our rules to establish and maintain a fair and disciplined hearing process, avoiding extensions of time absent good cause, unnecessary multiple rounds of briefs, or other unnecessary delay. We urge the Board and parties to work together to bring the proceeding to timely closure.

CLI-10-28 at 2 (footnote omitted).

Having been unsuccessful in its efforts to expand the remanded contention, Pilgrim Watch then embarked on filing multiple, successive requests for hearing on new contentions. To date, Pilgrim Watch has filed six such requests, including the one to which this Answer responds.[18] This last contention was filed four months after the Board issued its decision

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[14] Id. at 3.

[15] Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-14, 71 N.R.C. 459, 453, 477 (2010) ("CLI-10-14").

[16] Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-15, 71 N.R.C. 479 (2010) ("CLI-10-15").

[17] Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-28, 71 N.R.C. __, slip op. (Nov. 5, 2010) ("CLI-10-28").

[18] Pilgrim Watch Request for a Hearing on a New Contention (Nov. 29, 2010); Pilgrim Watch Request for a Hearing on a New Contention: Inadequacy of Entergy's Aging Management of Non-Environmentally Qualified (EQ) Inaccessible Cables at Pilgrim Station (Dec. 13, 2010); Pilgrim Watch Request for Hearing on a New Contention: Inadequacy of Entergy's Aging Management Program of Non-Environmentally Qualified (Non-EQ) Inaccessible Cables (Splices) at Pilgrim Station (Jan. 20, 2011); Pilgrim Watch's Request for Hearing on Post

resolving the remanded contention,[19] and several months after the Board's decisions rejecting Pilgrim Watch's previous untimely and unsupported new contentions.[20] With the Board's recent denial of the Commonwealth's hearing request,[21] there are no other matters before the Board. Accordingly, the Board should expeditiously reject Pilgrim Watch's latest filing. Pilgrim Watch's repeated attempts to delay the completion of this proceeding, soon to enter its seventh year, should not be countenanced.

B. APPLICABLE LEGAL STANDARDS

The NRC does not look with favor on amended or new contentions filed after the initial filing. Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 N.R.C. 631, 638 (2004). As the Commission has repeatedly stressed,

> [o]ur contention admissibility and timeliness rules require a high level of discipline and preparation by petitioners "who must examine the publicly available material and set forth their claims and the support for their claims at the outset." There simply would be "no end to NRC licensing proceedings if petitioners could disregard our timeliness requirements" and add new contentions at their convenience during the course of a proceeding based on information that could have formed the basis for a timely contention at the outset of the proceeding. Our expanding adjudicatory docket makes it critically important that parties comply with our pleading requirements and that the Board enforce those requirements.

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 N.R.C. 235, 271-72 (2009) (emphasis added) (citations omitted).

Fukushima SAMA Contention (May 12, 2011); Pilgrim Watch Request For Hearing on A New Contention Regarding Inadequcy [sic] of Environmental Report, Post-Fukushima (June 1, 2011).

[19] Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-11-18, 74 N.R.C. __, slip op. (July 19, 2011) ("LBP-11-18")

[20] Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-11-20, 74 N.R.C. __, slip op. (Sept. 8, 2011) ("LBP-11-20") (denying Pilgrim Watch's requests for hearing on certain new contentions); LBP-11-23 (denying Pilgrim Watch's requests for hearing on new contentions related to Fukushima accident).

[21] See LBP-11-35

Where, as here, the adjudicatory record has been closed, the Commission's rules specify that a motion to reopen that record to consider additional evidence – including evidence on a new contention (see 10 C.F.R. § 2.326(d)) – will not be granted unless the following criteria are satisfied:

> (1) The motion must be timely. However, an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented;
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> (2) The motion must address a significant safety or environmental issue; and
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> (3) The motion must demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.

10 C.F.R. § 2.326(a). Further, under the NRC rules,

> The motion must be accompanied by affidavits that set forth the factual and/or technical bases for the movant's claim that the criteria of paragraph (a) of this section have been satisfied. Affidavits must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised. Evidence contained in affidavits must meet the admissibility standards of this subpart. Each of the criteria must be separately addressed, with a specific explanation of why it has been met. When multiple allegations are involved, the movant must identify with particularity each issue it seeks to litigate and specify the factual and/or technical bases which it believes support the claim that this issue meets the criteria in paragraph (a) of this section.

10 C.F.R. § 2.326(b) (emphasis added). As discussed later, Pilgrim Watch has not met any of these standards and requirements.

The Commission has repeatedly emphasized that "[t]he burden of satisfying the reopening requirements is a heavy one." Oyster Creek, CLI-09-7, 69 N.R.C. at 287 (citing Louisiana Power & Light Co. (Waterford Steam Electric Station, Unit 3), CLI-86-1, 23 N.R.C. 1, 5 (1986)). "[P]roponents of a reopening motion bear the burden of meeting all of [these] requirements." Id. (citing Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-90-10, 32 N.R.C. 218, 221 (1990)). "Bare assertions and speculation . . . do not supply

the requisite support." Id. (citing AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 N.R.C. 658, 674 (2008)).

In addition, where a motion to reopen relates to a contention not previously in controversy, a motion to reopen must also satisfy the standards for non-timely contentions in 10 C.F.R. § 2.309(c). 10 C.F.R. § 2.326(d).[22] Section 2.309(c) provides that non-timely contentions will not be entertained absent a determination by the Board that the contentions should be admitted based upon a balancing of the following factors:

> (i) Good cause, if any, for the failure to file on time;
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> (ii) The nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding;
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> (iii) The nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding;
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> (iv) The possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interest;
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> (v) The availability of other means whereby the requestor's/petitioner's interest will be protected;
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> (vi) The extent to which the requestor's/petitioner's interests will be represented by existing parties;
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> (vii) The extent to which the requestor's/petitioner's participation will broaden the issues or delay the proceeding; and
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> (viii) The extent to which the requestor's/petitioner's participation may reasonably be expected to assist in developing a sound record.

10 C.F.R. § 2.309(c)(1).

In keeping with the Commission's disfavor of contentions after the initial filing, these factors are "stringent." Oyster Creek, CLI-09-7, 69 N.R.C. at 260, citing Florida Power & Light Co. (Calvert Cliffs Nuclear Power Plant, Units 1 and 2, et al.), CLI-06-21, 64 N.R.C. 30, 33

[22] See also Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 N.R.C. 115, 125 (2009); Oyster Creek, CLI-08-28, 68 N.R.C. at 668.

(2006). "Late petitioners properly have a substantial burden in justifying their tardiness." Nuclear Fuel Services, Inc. (West Valley Reprocessing Plant), CLI-75-4, 1 N.R.C. 273, 275 (1975).

Commission case law places most importance on whether the petitioner has demonstrated sufficient good cause for the untimely filing. Tennessee Valley Authority (Watts Bar Nuclear Plant, Unit 2), CLI-10-12, 71 N.R.C. 319, 323 (2010) ("CLI-10-12"); Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-00-02, 51 N.R.C. 77, 79 (2000); Millstone, CLI-09-5, 69 N.R.C. at 125. Indeed, failure to demonstrate good cause requires the petitioner to make a "compelling" showing with respect to the other factors. Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Unit 2), CLI-93-4, 37 N.R.C. 156, 165 (1993). In other words,

> A petitioner's showing must be highly persuasive; it would be a rare case where [the Commission] would excuse a non-timely petition absent good cause.

Watts Bar, CLI-10-12, 71 N.R.C. at 323 (footnote omitted). As discussed later, Pilgrim Watch has not shown good cause for its filing, and a balance of the lateness factors weighs against admitting this late-filed contention.

Finally, any new contention must also satisfy the standards for admissibility in 10 C.F.R. § 2.309(f)(1). These standards too are to be enforced rigorously. "If any one . . . is not met, a contention must be rejected." Arizona Public Service Co. (Palo Verde Nuclear Generating Station, Unit Nos. 1, 2, and 3), CLI-91-12, 34 N.R.C. 149, 155 (1991) (citation omitted); USEC, Inc. (American Centrifuge Plant), CLI-06-9, 63 N.R.C. 433, 437 (2006) ("These requirements are deliberately strict, and we will reject any contention that does not satisfy the requirements." (footnotes omitted)). A licensing board is not to overlook a deficiency in a contention or assume the existence of missing information. Palo Verde, CLI-91-12, 34 N.R.C. at 155; Oyster Creek,

CLI-09-7, 69 N.R.C. at 260 (the contention admissibility rules "require the petitioner (not the board) to supply all of the required elements for a valid intervention petition" (emphasis added) (footnote omitted)). As discussed below, Pilgrim Watch also fails to meet these requirements.

III. PILGRIM WATCH'S REQUEST SHOULD BE DENIED

Pilgrim Watch claims that its hearing request must be granted and the Pilgrim SAMA analysis must be redone to take into account purported new and significant information revealed by the Fukushima accident, i.e. the likelihood that a severe accident at Pilgrim would result in large quantities of contaminated water being released into Cape Cod Bay, and the failure of the MACCS2 code to model and account for the consequences of such releases. PW Request at 3. To the contrary, Pilgrim Watch could have challenged at the outset of this proceeding the fact that, when modeling the consequences from a severe reactor accident, the MACCS2 code assumes that any radioactive release for a particular accident scenario is emitted into the atmosphere (the pathway that results in faster, direct, and ultimately much greater consequences to the public and the economy), rather than other pathways. Thus, Pilgrim Watch's Request is not timely raised. Moreover, the issues that Pilgrim Watch raises are not significant because the Pilgrim SAMA analysis considers severe accident radiological releases that are far greater than those from the three damaged Fukushima reactors combined. Further, Pilgrim Watch has failed to demonstrate that redoing the SAMA analysis so that some portion of the radioactive release is emitted via an aqueous pathway (rather than all released via the atmosphere as is currently the case) would result in greater radiological consequences sufficient to alter the Pilgrim SAMA analysis. Accordingly, Pilgrim Watch's very tardy hearing request must be rejected.

A. PILGRIM WATCH FAILS TO MEET THE STANDARDS FOR A MOTION TO REOPEN IN 10 C.F.R. § 2.326

Despite Pilgrim Watch's erroneous claims to the contrary (see PW Request at 45-47), the Board has ruled three times that the Commission's heightened standards for reopening a closed record in 10 C.F.R. § 2.326 apply to hearing requests raised at this very late stage in this proceeding. LBP-11-20 at 3; LBP-11-23 at 5; LBP-11-35 at 2. Pilgrim Watch's Request clearly fails to satisfy these standards. The Request fails to meet the requirements in 10 C.F.R. § 2.326(a)(1)-(3), and furthermore is not supported by an affidavit that meets the requirements in 10 C.F.R. § 2.326(b). Each of these failures by itself requires that the PW Request be rejected.

1. The Request is Not Timely

Neither Pilgrim Watch nor Mr. Gundersen demonstrates that the Request is timely. The bases for Pilgrim Watch's challenges are not new information and could have been raised long ago, rendering them untimely now. 10 C.F.R. § 2.309(f)(2) states that "[c]ontentions must be based on documents or other information available at the time the petition [to intervene] is to be filed, such as the application [and] safety analysis report." An intervenor has an "ironclad obligation to examine the publicly available documentary material . . . with sufficient care to enable it to uncover any information that could serve as the foundation for a specific contention." Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 N.R.C. 135, 147 (1993) (footnote omitted). Other than new or amended contentions challenging new data or conclusions in the NRC Staff's environmental impact statement (not applicable here), the NRC rules allow new contentions to be filed after this initial filing only with the leave of the presiding officer upon a showing that:

> (i) The information upon which the amended or new contention is based was not previously available;

> (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
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> (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.

10 C.F.R. § 2.309(f)(2)(i)-(iii). In essence, a proponent of a new contention must show that it could not have raised its contention earlier. Intervenors are not free simply "to add new contentions at their convenience during the course of a proceeding based on information that could have formed the basis for a timely contention at the outset of the proceeding." Oyster Creek, CLI-09-7, 69 N.R.C. at 272 (footnote omitted).

Pilgrim Watch does not demonstrate that it could not have raised this contention earlier. Pilgrim Watch and Mr. Gundersen claim that the Contention is timely because it is based on information contained in SECY-11-0089 (which was published on July 7, 2011) and the Commission voting record on SECY-11-0089 (which was published on September 11, 2011). PW Request at 1-2, 39; Gundersen Decl. at ¶¶ 14, 21-22. Specifically, Mr. Gundersen asserts:

> according to SECY-11-0089 the MACCS2 computer code used by Entergy does not model aqueous transport. Support for this contention's timeliness is evidenced by the fact that the NRC Commissioners did not vote on and accept SECY-11-0089 until late September 2011.

Gundersen Decl. at ¶ 22 (emphasis in original). However, contrary to Mr. Gundersen's and Pilgrim Watch's claims, the fact that the MACCS2 models and analyzes the consequences from atmospheric radioactive releases, and not aqueous releases, has been known since the code's inception – more than a dozen years before this proceeding commenced. Furthermore, again contrary to Mr. Gundersen's baseless claims that the information needed to support the contention has now only recently become available, allegedly "following months and months of cover-ups . . . regarding the severity of these accidents," id. at ¶ 21, Pilgrim Watch's own media references make clear that information on the release of radioactively contaminated water into

the Pacific Ocean from Fukushima has been available since April 2011.[23] Consequently, the Pilgrim Watch's claims are not new information.

In particular, as explained in the attached Entergy Declaration:

- Pilgrim Watch's own witness Mr. Chanin previously testified multiple times in this proceeding that the MACCS2 code was "state-of-the-art" for modeling the consequences that would result from atmospheric radiological releases stemming from a severe reactor accident. Mr. Chanin first provided this testimony over four years ago in responding to Entergy's summary disposition motion on Pilgrim Watch Contention 3, and again in May 2011 in support of Pilgrim Watch's first Fukushima-related contention. Entergy Decl. at ¶ 15.[24]
- MACCS version 1.5.11.1, the predecessor code to the MACCS2 code, published in February 1990 makes clear that the code models the atmospheric release, transport, and deposition of radionuclides following a severe reactor accident. Id. at ¶ 16.
- The MACCS2 code, introduced in 1997-98, updated and replaced the MACCS code and is the base code used to perform the Pilgrim SAMA analysis. As described in the MACCS2 User's Guide (which is referenced by Pilgrim Watch in its initial SAMA contention[25]), the core functions of the MACCS2 code remain the same, to model atmospheric radiological releases after a severe accident and to estimate the consequences of those releases. Id. at ¶ 17.

Thus, the issue now challenged by Pilgrim Watch as lacking from the Pilgrim SAMA analysis – the failure of the MACCS2 code to analyze the consequences of hypothetical aqueous

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[23] See also Entergy Decl. at ¶¶ 58-61.

[24] A majority of this Board found untimely on nearly identical grounds an earlier Pilgrim Watch contention that sought to challenge the MACCS2 code's alleged inability to model radioactive releases of long duration. The Board majority ruled that "Mr. Chanin[] is expert in SAMA analysis and the ins-and-outs of the MACCS2 computer code used for the Pilgrim SAMA analyses" and thus "has been aware of the limitation on release durations since the inception of the code itself (which is many years before commencement of this proceeding)." LBP-11-23 at 13. Thus, "it cannot be rationally asserted that the fact of the code's inability to model these longer releases is new." Id.

[25] See e.g., Pilgrim Watch Request for Hearing and Petition to Intervene by Pilgrim Watch (May 25, 2006) at 31-33.

radiological releases into Cape Cod Bay – is not new and was apparent long before this proceeding commenced.

Pilgrim Watch's and Mr. Gundersen's reliance on SECY-11-0089 and the Commission voting record for SECY-11-0089 to base the timeliness of the Request, PW Request at 39; Gundersen Decl. at ¶¶ 14, 22, is misplaced. Commission precedent makes clear that documents that merely collect, summarize, or place into context previously available information do not support the timeliness of a new contention. Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 N.R.C. __, slip op. at 17 (Sept. 30, 2010). As Mr. Gundersen states, SECY-11-0089 and the Commission voting record did nothing more than "acknowledge" (Gundersen Decl. at ¶ 14) information that has been known since the MACCS code's inception – that the code models the consequences from atmospheric radiological releases, and not aqueous releases, from a postulated severe reactor accident. Thus, nothing "new" was revealed in SECY-11-0089 that could form the basis for a timely contention.

Further, even assuming that Fukushima revealed something new vis-à-vis the MAACS2 code's function of modeling the consequences from severe accident atmospheric releases instead of other pathways (which it has not), Pilgrim Watch has waited far too long to file its Request. Typically a "30-day clock" applies to the filing of a new contention based on new information. Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), CLI-11-08, 74 N.R.C. __, slip op. at 3 n.8 (Sept. 27, 2011); cf. Entergy Nuclear Vermont Yankee, L.L.C. (Vermont Yankee Nuclear Power Station), CLI-11-02, 73 N.R.C. __, slip op. at 10, n.43 (Nov. 10, 2011) ("[w]e and our Licensing Boards generally consider approximately 30-60 days as the limit for timely filings based on new information") (citation omitted). Here, a 30-day window would apply. The Board long ago ruled that contentions based on purported new information be

filed within 30 days of the availability of that information. See Order (Establishing Schedule for Proceeding and Addressing Related Matters) (Dec. 20, 2006) at 6-7; Vogtle, CLI-11-08 at 3 n.8 (approving of a 30-day time limit for filing new contentions where that limit was "consistent with [the Board's] requirement that motions seeking the admission of new or amended contentions be filed within thirty days of the date the information that forms the basis for the contention becomes available").

Pilgrim Watch has long exceeded the 30-day clock for multiple reasons:

- First, the aqueous releases into the Pacific from Fukushima, on which Pilgrim Watch bases its Request, were revealed as far back as April 2011. See Pilgrim Watch Request at 19-22 & nn. 20, 21 (referencing news accounts of the aqueous releases); see also Entergy Decl. at ¶¶ 58-61. Thus, Pilgrim Watch could have raised issues related to aqueous radioactive releases months ago.

- Second, SECY-11-0089 was published on July 7, 2011. Even if there were new information revealed in SECY-11-0089 concerning the MACCS2 code (which there is not), Pilgrim Watch should have filed its Request within 30 days of the issuance of SECY-11-0089, or August 8, 2011 (the 30th day, August 6th, fell on a Saturday).

- Third, the Commission voting record on SECY-11-0089 was published on September 21, 2011. Even if the Commission voting record was the appropriate trigger for a new contention on the issues Pilgrim Watch seeks to challenge

(which it is not[26]), Pilgrim Watch should have filed its Request within 30 days of the issuance of that document, which it did not do.

In sum, the availability of information concerning the limitation of the MACCS2 code to model the consequences of atmospheric releases has been apparent since before this proceeding commenced. This means that Pilgrim Watch could have challenged the Pilgrim SAMA analysis on these grounds well over five years ago, at the time its Petition to Intervene was filed in May 2006. Pilgrim Watch had an "ironclad obligation" to examine Entergy's license renewal application and, notwithstanding the events at Fukushima Daiichi, Pilgrim Watch's failure to do so does not permit it to raise yet another contention at this late stage. Rancho Seco, CLI-93-3, 37 N.R.C. at 147. Moreover, even ignoring this "ironclad obligation," Pilgrim Watch cannot contend that its contention is timely because of the lapse of time since the aqueous releases at Fukushima and the issuance of SECY-11-0089 and the Commission voting record on SECY-11-0089.

The Request is also untimely for another reason. Pilgrim Watch fails to provide any information relating the events that occurred at the Fukushima plants to the Pilgrim plant. See LBP-11-23 at 33. As a majority of this Board has previously recognized, "the root cause of the accident at Fukushima was the beyond-design-basis earthquake that caused the beyond-design-basis tsunami which resulted in a beyond-design-basis duration of station blackout." LBP-11-35 at 50. Here, however, neither Pilgrim Watch nor Mr. Gundersen "indicates [any] linkage

[26] Pilgrim Watch and Mr. Gundersen argue that the Commission voting record on SECY-11-0089, and not the SECY paper itself, is the appropriate document on which to judge the timeliness of the Request because the voting record made "clear what actions that the NRC would or would not take in response to lessons learned." PW Request at 39; Gundersen Decl. at ¶ 22 ("[s]upport for this contention's timeliness is evidenced by the fact that the NRC Commissioners did not vote on and accept SECY-11-0089 until later September 2011") (emphasis omitted). To the contrary, the statement in SECY-11-0089 concerning the MACCS2 code's inability to model aqueous releases was no more or less true with the issuance of the Commission voting record more than two months later. Thus, the SECY paper itself would be the appropriate trigger to determine timeliness had that document revealed anything new about the MACCS2 code (which it has not).

whatsoever between these events and the potential for a beyond-design-basis duration of station blackout at Pilgrim," id., or any potential for a beyond-design-basis accident resulting in the production of large quantities of radioactively contaminated water and the discharge of such water into Cape Cod Bay. Indeed, as discussed in the attached Declaration (and summarized in the discussion below) the beyond-design-basis events that occurred at Fukushima are highly unlikely to occur at Pilgrim. Entergy Decl. at ¶¶ 23-38. Further, neither Pilgrim Watch nor Mr. Gundersen challenges the initiating event or equipment failure probability assumptions relied on in the Pilgrim SAMA analysis, or otherwise make any attempt to relate the Fukushima accident (and its initiating events and equipment/system failures) to the Pilgrim plant. Entergy Decl. at ¶ 39. Thus, Pilgrim Watch proffers "no new information respecting Pilgrim regarding [these] matters, and it therefore cannot form the basis for an assertion of timeliness for the purposes of Section 2.326." LBP-11-35 at 50.

Finally, Pilgrim Watch's claim that Entergy's SAMA ought to use the 95th percentile of the total consequences instead of the mean, PW Request at 11 n.9; Gundersen Decl. at ¶ 37, is also untimely. It is standard NRC policy and practice for the SAMA analysis to use the mean estimated public dose consequences and off-site economic costs. CLI-10-11, 71 N.R.C. at 316-17. In an earlier ruling, a majority of the Board ruled that it was undisputed "that the information regarding the NRC's practice of utilizing the mean consequence value in SAMA analysis was available prior to the original filing deadline – and indeed such information was publicly available."[27] Accordingly, any challenge to the use of mean consequence values, rather than the 95th percentile of the total consequences, in the Pilgrim SAMA analysis could have been raised at the outset of this proceeding.

[27] Memorandum and Order (Ruling on Timeliness of Mean Consequence Values Issue) (Mar. 3, 2011) at 19.

For the foregoing reasons, Pilgrim Watch fails to meet the requirements of Section 2.326(a)(1).

2. No Demonstration of the Existence of a Significant Environmental Issue

Neither Pilgrim Watch nor Mr. Gunderson demonstrates the existence of a significant environmental issue, let alone an "exceptionally grave" issue required for untimely motions to reopen. 10 C.F.R. § 2.326(a)(1)-(2).

Where, as here, Pilgrim Watch seeks to raise untimely issues, it must demonstrate the existence of an "exceptionally grave" issue. 10 C.F.R. § 2.326(a)(1). When promulgating its standards for motions to reopen the record, the Commission relied on longstanding precedent holding that an untimely-raised issue must present "a sufficiently grave threat to public safety." Final Rule, Criteria for Reopening Records in Formal Licensing Proceedings, 51 Fed. Reg. 19,535, 19,536 (May 30, 1986), quoting Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-124, 6 A.E.C. 358, 365 n.10 (1973). See also LBP-11-35 at 53-54 (applying the "sufficiently grave threat to public safety" standard). Neither Pilgrim Watch nor Mr. Gundersen asserts that any exceptionally grave issue exists. And nothing about Pilgrim Watch's Contention, which claims that the environmental analysis supporting license renewal is inadequate and ultimately seeks to challenge Entergy's SAMA analysis, can be characterized a grave threat (let alone an exceptionally grave threat) to public safety. Consequently, Pilgrim Watch fails this standard.

Even assuming that Pilgrim Watch has timely raised any issue (which it has not), its environmental contention still fails to demonstrate the existence of a significant environmental issue. The Commission equates the standard for raising a significant environmental issue under Section 2.326 with the standard that governs whether supplementation of an EIS is required.

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-06-03, 63 N.R.C. 19, 29 (2006) ("PFS") (holding that claimed additional environmental impacts were "not so significant or central to the FEIS's discussion of environmental impacts that an FEIS supplement (and the consequent reopening of our adjudicatory record) is reasonable or necessary"). To require supplementation of an EIS, the alleged new and significant information must "paint a 'seriously different picture of the environmental landscape.'" Id. at 28 (emphasis in original) (quoting D.C. Circuit cases). See also LBP-11-35 at 56-57 (applying the Commission's PFS standard in determining that the Commonwealth had failed to demonstrate the existence of a significant environmental issue with respect to its Fukushima-related contention). Moreover, the Commission has directly held that "bare assertions and speculation . . . do not supply the requisite support" to satisfy the Section 2.326 standards. Oyster Creek, CLI-09-7, 69 N.R.C. at 287 (citing Oyster Creek, CLI-08-28, 68 N.R.C. 658, 674 (2008)). In other words, a "mere showing" that changes to the SAMA analysis results are "possible" or "likely" or "probable" is not enough. Oyster Creek, CLI-08-28, 68 N.R.C. at 670, 674.

With these standards in mind, it is clear that Pilgrim Watch has failed to raise a significant environmental issue in its environmental contention. At bottom, Pilgrim Watch offers only mere, unsupported speculation suggesting that Entergy "redo" its SAMA analysis to take into account that it is "likely" that contaminated water will enter Cape Cod Bay, which "could" change the outcome of the Pilgrim SAMA analysis. PW Request at 3, 4, 6, 33. See also Gundersen Decl. at ¶¶ 16 ("such an accident at Pilgrim could have significant offsite consequences") (emphasis added); 17 ("Such releases might add significantly to the atmospheric release fallout onto open bodies of water") (emphasis added); and 18 ("enormous quantities of contaminated water could likely enter Cape Cod Bay") (emphasis added). Such unsupported

speculation is insufficient to demonstrate a significant environmental issue. The Commission has made it abundantly clear that merely asserting that something might turn up to support an intervenor's concerns does not raise a significant issue and is therefore insufficient to restart the hearing process. AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 N.R.C. 461, 486 (2008).[28] See also LBP-11-35 at 57 (speculation "that other SAMAs might become cost effective . . . can[not] serve to bootstrap the contention into raising any such different environmental situation") (footnote omitted).

Pilgrim Watch never comes forward with anything other than unsupported, bare assertions and mere speculation that significant increases in offsite consequences are possible and that the SAMA results might be different. For example, Pilgrim Watch asserts that aqueous radiological releases "pos[e] significant offsite consequences and costs," PW Request at 3, but never makes any showing that those consequences and costs are seriously different than the consequences and costs modeled in the SAMA analysis. Likewise, despite its claim that "Entergy's SAMA failed to analyze the[] offsite costs" from contamination resulting from the aqueous transport and dispersion of radioactive materials, PW Request at 9, Pilgrim Watch never shows that such costs are significantly different than those costs calculated in the Pilgrim SAMA analysis. Such bare assertions and speculation are insufficient to support reopening the record, Oyster Creek, CLI-09-7, 69 N.R.C. at 287 (citing CLI-08-28, 68 N.R.C. at 674), and thus fail to show the existence a significant issue (let alone an exceptionally grave one).

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[28] Similarly, "the Board has no authority to order the Licensee to perform a reanalysis for the purpose of determining whether the record should be reopened" because "'a Board is to decide a motion to reopen on the information before it and has no authority to engage in discovery in order to supplement the pleadings before it.'" Florida Power & Light Co. (Turkey Point Plant, Units 3 & 4) LBP-87-21, 25 N.R.C. 958, 963 (1987), quoting Cleveland Electric Illuminating Co. (Perry Nuclear Plant, Units 1 and 2), CLI-86-7, 23 N.R.C. 233, 235 (1985).

Moreover, the Commission has ruled that Fukushima has not revealed "significant" environmental information, i.e., information presenting a seriously different picture of the environmental landscape given the state of information available at this time.[29] Thus, the Board should rule that Pilgrim Watch's Request involves no significant (let alone grave) issue warranting reopening of the record. In this respect, Entergy's expert witnesses demonstrate in the attached Declaration that Pilgrim Watch's Request fails to raise a significant environmental issue because (1) an accident like the one that occurred at Fukushima is highly unlikely to occur at Pilgrim, and (2) even if a severe accident resulted in contaminated water being discharged into Cape Cod Bay as has occurred at Fukushima vis-à-vis the Pacific Ocean, the costs associated with the consequences for such discharges would not materially alter the Pilgrim SAMA analysis. Entergy Decl. at ¶¶ 23-64.

With respect to the high unlikelihood that a Fukushima accident would occur at Pilgrim, Entergy's experts demonstrate that:

- The Fukushima initiating events involved a beyond design basis 9.0 magnitude earthquake followed by a massive beyond design basis tsunami, which are highly unlikely at Pilgrim. The fact that Fukushima experienced these beyond design basis events does not mean that a beyond design basis event of the same or another type at Pilgrim is more likely than previously thought. Entergy Decl. at ¶¶ 24-26.

- Pilgrim's emergency operating procedures require venting the primary containment long before such venting was attempted at Fukushima. Thus, even assuming an extended station blackout ("SBO") at Pilgrim, resulting in a loss of power to operate

[29] Ameren Missouri, *et al.* (Callaway Plant, Unit 2, *et al.*), CLI-11-05, 74 N.R.C. __, slip op. at 30-31 (Sept. 9, 2011) "(CLI-11-05"). See also LBP-11-35 at 57 n. 218 (concluding, as did the Commission, that Fukushima has not presented a seriously different picture of the environmental landscape) (citing CLI-11-05 at 31).

normal core cooling systems, Pilgrim operators would have taken venting actions to reduce pressures inside containment in order to maintain the ability to conduct emergency core cooling functions. In other words, Pilgrim's earlier venting actions would increase the likelihood that Pilgrim would be able to maintain sufficient core cooling, thus reducing the likelihood of core damage and therefore the likelihood of any contaminated water escaping into the environment. Entergy Decl. at ¶¶ 30-34.

- Further, the Fukushima accident involved core melts at three adjacent reactors at a six reactor site, whereas Pilgrim is a single-unit plant. The simultaneous challenges at the three Fukushima units complicated the emergency response to those challenges. In addition, Fukushima operators had to contend with the radiological releases and decay heat loads from three separate reactors, which were simultaneously vying with each other for available power and cooling water. Such complications and competition for resources would not be present at the single-unit Pilgrim plant. Entergy Decl. at ¶¶ 35-38.

With respect to the consequences that would occur from aqueous radioactive releases and their potential impact on the Pilgrim SAMA analysis, Entergy's experts demonstrate that:

- The Pilgrim SAMA analysis considers accident scenarios involving failure to vent and the consequences resulting from large, atmospheric releases. The potential consequences from atmospheric releases are far greater than potential consequences resulting from the aqueous releases at issue in Pilgrim Watch's contention. As succinctly stated in NUREG-1437, "[f]or most plants, the air

pathway represents the most likely pathway for significant dose to the public."[30] Atmospheric releases have greater, more immediate, and direct impact to persons and populated areas, resulting in greater consequences. Thus, if the Pilgrim SAMA analysis were redone to assume that some portion of the radioactive release were to escape into the environment via an aqueous pathway (*e.g.*, discharges into Cape Cod Bay), rather than the entire radioactive release being released into the atmosphere, less consequences (and thus less costs for SAMA purposes) would result. Entergy Decl. at ¶¶ 41-50.

- The Pilgrim SAMA analysis considers large atmospheric releases of radioactive material far greater than the total releases from the three damaged Fukushima reactors. The Pilgrim SAMA analysis considers accident scenarios that involve atmospheric radiological releases several times larger than the releases (atmospheric and aqueous) that occurred from the three damaged Fukushima reactors combined. Because the quantity of a radiological release (when it is dispersed into the atmosphere) essentially determines the consequences from a severe accident, Fukushima has revealed no information that would alter the Pilgrim SAMA analysis. Entergy Decl. at ¶¶ 53-64.

In short, Entergy's experts demonstrate that Pilgrim Watch's "claims simply implicate no specific environmental impact changes." LBP-11-35 at 57.

None of the other claims raised by Pilgrim Watch raise a significant environmental issue. Pilgrim Watch makes multiple assertions that the Pilgrim SAMA analysis must consider economic impacts resulting from "perceived or feared contamination irrespective of actual

[30] NUREG-1437, Generic Environmental Impact Statement for License Renewal Vol. 1 (May 1996) at 5-12.

readings." PW Request at 18 (emphasis omitted); see also id. at 19, 31-32; Gundersen Decl. at ¶ 23. In other words, Pilgrim Watch contends that, no matter the level of cleanup and decontamination achieved after a postulated accident, the public would fear the risk of marine contamination, where none exists, and therefore fail to (for example) consume fish, resulting in further economic harm. However, fear of the risk of non-existent contamination is not cognizable under the National Environmental Policy Act ("NEPA") and, thus, cannot be a significant environmental issue. Relying on long established Supreme Court precedent, the Commission has ruled in this proceeding that "NEPA does not require an agency to assess potential psychological impacts due to fear of radiological harm." CLI-10-11, 71 N.R.C. at 310 n.113 (citing Metropolitan Edison Co. v. People Against Nuclear Energy, 460 U.S. 766 (1983)). In Metropolitan Edison, the Supreme Court held that NEPA does not require the NRC to evaluate the alleged psychological health damage stemming from the risk of a nuclear accident because the "risk of an accident is not an effect on the physical environment." 460 U.S. at 775-76 (emphasis in original). Here, any economic consequences of fear of risk of non-existent contamination, either cleaned up or never present in the first place, is likewise not an effect on the physical environment. Consequently, Entergy (and the NRC) need not consider any economic damages resulting from that risk, and it therefore cannot rise to the level of a significant issue warranting reopening of the record.

With respect to Pilgrim Watch's claim that Entergy's SAMA analysis ought to use the 95th percentile of the total consequences, and not the mean, PW Request at 11 n.9; Gundersen Decl. at ¶ 37, in addition to being untimely as discussed above, Pilgrim Watch fails to raise a significant environmental issue. Neither Pilgrim Watch nor Mr. Gundersen explains why the 95th percentile should be used in a cost-benefit analysis, where the purpose of this analysis is to

compare the cost of a SAMA against its expected benefit. The Commission has explicitly ruled in this proceeding that

> NRC SAMA analysis is neither a worst-case nor a best-case impacts analysis. It is NRC practice to utilize the mean values of the consequence distributions for each postulated release scenario or category – the mean estimated value for predicted total population dose and predicted off-site economic costs. These mean consequence values are multiplied by the estimated frequency of occurrence of specific accident scenarios to determine population dose risk and offsite economic cost risk for each type of accident sequence studied. There is in SAMA analysis, therefore, an averaging of potential consequences. As a policy matter, license renewal applicants are not required to base their SAMA analysis upon consequence values at the 95th percentile consequence level (the level used for the GEIS severe accident environmental impacts analysis).

CLI-10-11, 71 N.R.C. at 316-17 (emphasis in original) (footnote omitted). Thus, Pilgrim Watch's "challenge[] regard[s] policy matters that are solely within the jurisdiction of the Commission" and "represent[s] challenges to binding Commission rulings regarding what is required in a SAMA analysis." LBP-11-20 at 19. Accordingly, Pilgrim Watch raises no significant environmental issue here.[31]

For all of the above reasons, the Request fails the requirements of Section 2.326(a)(2).

3. No Materially Different Result Would Be Likely

Both Pilgrim Watch and Mr. Gundersen fail to "demonstrate" that a materially different result would have been likely had its newly proffered evidence been considered initially, as required by 10 C.F.R. § 2.326(a)(3) (emphasis added). "[T]he 'result' at issue in this proceeding is the outcome of the SAMA analysis" because Pilgrim Watch "asserts that the different result it believes would be obtained is the consideration of other mitigation alternatives." LBP-11-35 at 58 & n.220. Specifically, Pilgrim Watch seeks "a [revised] environmental impact analysis and

[31] Pilgrim Watch's claim that five years of aquatic contamination transport data should be used (PW Request at 11 n.9; Gundersen Decl. at ¶ 37) is also unavailing. This claim only concerns how aqueous release allegedly would need to be modeled, but as discussed above, the consequences of any hypothetical aqueous would be more than bounded by the large atmospheric releases postulated in the Pilgrim SAMA analysis.

the SAMA analysis for Pilgrim, to consider" what it contends is new and significant information which it claims "could change the outcome of Pilgrim's SAMA and result in some previously rejected or ignored SAMAs that may prove to be cost-effective in light of the experience of the Fukushima accident." PW Request at 6. However, as discussed below, Pilgrim Watch and Mr. Gundersen offer only bare assertions and mere speculations that a materially different outcome would result, which is insufficient to meet this standard.

Pilgrim Watch has a "deliberately heavy" burden to demonstrate that a materially different result would be likely. Oyster Creek, CLI-08-28, 68 N.R.C. at 674; see also CLI-11-05 at 33. At this late stage of the proceeding, is it not sufficient simply to raise an issue. Rather, "longstanding agency practice hold[s] that a party seeking to reopen a closed record to introduce a new issue . . . must back its claim with enough evidence to withstand summary disposition when measured against its opponents' contravening evidence." PFS, CLI-05-12, 61 N.R.C. 345, 348 (2005), citing Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-138, 6 A.E.C. 520, 523-24 (1973). This means that "'no reopening of the evidentiary hearing will be required if the [documents] submitted in response to the motion demonstrate that there is no genuine unresolved issue of fact.'" Id. at 350 (quoting Vermont Yankee, ALAB-138, 6 A.E.C. at 523-24).

Without any support, Pilgrim Watch claims that a materially different result would be likely because the "offsite consequences/costs would be substantially greater if [its allegedly new and significant information had been] considered by Entergy in its SAMA analysis." PW Request at 44-45, 48. But nowhere does the Request provide any demonstration that such result would be likely. Likewise, Mr. Gundersen states only that he "believe[s] that Entergy's Pilgrim Station SAMA would be entirely different if Entergy had modeled and analyzed aqueous

transport and dispersion of radioactive materials," Gundersen Decl. at ¶ 24, but nowhere makes any showing to that effect. "[T]he term 'demonstrate' requires much more than the bare speculation and bare assertions offered" by Pilgrim Watch and Mr. Gundersen. LBP-11-35 at 58-59. To demonstrate that other SAMAs would have been considered would have required Pilgrim Watch

> to provide some information indicating how much the mean consequences of the severe accident scenarios could reasonably be expected to change as a result of consideration of the Fukushima-derived information [Pilgrim Watch] proposes would alter the outcome of the cost-benefit balancing, together with at least some minimal information as to the cost of implementation of other SAMAs it believes might become cost effective.

LBP-11-35 at 58. Neither Pilgrim Watch nor Mr. Gundersen provide any such information.[32]

Pilgrim Watch also argues in the alternative that it met the requirements of Section 2.326(a)(3) because "Entergy failed to show that" a materially different result would not occur because it "never considered" the consequences from aqueous releases in its SAMA analysis. PW Request at 45 (emphasis added). See also id. at 23 ("It is Entergy's job, not Pilgrim Watch's, to re-do the SAMA") (emphasis omitted). Mr. Gundersen echoes this argument in

[32] Despite Pilgrim Watch's claim that it is not required to "prove" its case at the contention filing stage, PW Request at 7 (emphasis omitted), the standard established by the Board majority in LBP-11-35 does not require it to do so. LBP-11-35 at 58. Moreover, at this stage of the proceeding, more than contention admissibility and that standard's associated burden are at issue. Pilgrim Watch must meet both the standards and evidentiary burden for reopening the record. First, the evidentiary burden required to reopen the record is akin to that required to withstand summary disposition, PFS, CLI-05-12, 61 N.R.C. at 348, which is much more rigorous than the lesser showing required for an admissible SAMA contention. Pacific Gas & Elec. Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 N.R.C. at __, slip op. at 19-20 (Oct. 12, 2011) (discussing its ruling in Pilgrim, CLI-09-11). Second, the standards for reopening the record are much more rigorous than for summary disposition. Oyster Creek, CLI-08-28, 68 N.R.C. at 673-74. In Oyster Creek, the Commission rejected an argument that the summary disposition standard should apply to reopening motions, ruling that to do so would "effectively excise the reopening and 'nontimely filing' standards and replace them with a reformulated section 2.710, stripped of its own timeliness requirements and applied to a post-decisional context for which it was not intended." Id. at 674 (emphasis added). Thus, although Pilgrim Watch is not required to prove its contention in order to reopen the record, in this "post-decisional context" it must come forward with sufficient and timely evidence that, inter alia, "demonstrate[s] that a materially different result would be or would have been likely had the newly proffered evidence been considered initially." 10 C.F.R. § 2.326(a)(3). Pilgrim Watch has failed to meet this very rigorous reopening standard.

asserting that he "looks forward to reviewing Entergy's SAMA analysis once Entergy has modeled the impact of the release of copious amounts of radioactive water [into] . . . Cape Cod Bay." Gundersen Decl. at ¶ 24. However, such argument impermissibly shifts the Section 2.326 burden to Entergy. The Commission has made clear that the burden under Section 2.326 is "deliberately heavy and deliberately placed on the party seeking reopening." Oyster Creek, CLI-08-28, 68 N.R.C. at 674 (emphasis added). Thus,

> Under 10 C.F.R. § 2.326, it is not [Entergy's] (or the Staff's) burden to defeat the motion to reopen. Instead, it is [Pilgrim Watch's] burden, through its motion to reopen and in its accompanying affidavit . . . to demonstrate that the motion should be granted.

Id.

In addition, although it is not Entergy's burden to demonstrate that the record should not be reopened, Entergy's experts have demonstrated that there is no genuine unresolved issue of fact and therefore the record should not be reopened.

First, a Fukushima-type accident is highly unlikely to occur at Pilgrim because (1) the 9.0 magnitude earthquake followed by the Tsunami are highly unlikely to occur at Pilgrim; (2) Pilgrim operators would have vented containment long before Fukushima's operators attempted to vent containment there, thus increasing the likelihood that Pilgrim would maintain the core covered by water and averting or reducing core damage; and (3) Pilgrim's accident response would not be complicated by simultaneous challenges to six adjacent and interconnected reactors on a compact site, three of which suffered core damage. Entergy Decl. at ¶¶ 23-38. In light of the very low likelihood of a Fukushima-type accident occurring at Pilgrim, Pilgrim Watch cannot

demonstrate that the probability-weighted consequences of a Fukushima-type accident would materially alter the site specific Pilgrim SAMA analysis.[33]

Second, even assuming a severe accident where some portion of the radioactive release was emitted into the environment via an aqueous pathway rather than all of the release emitted into the atmosphere (as postulated in the Pilgrim SAMA analysis), the consequences (measured in population dose risk ("PDR") and off-site economic cost risk ("OECR") would be lower than those considered in the Pilgrim SAMA analysis. Atmospheric releases result in direct, immediate, and much more substantial consequences than a release into a water body such as Cape Cod Bay. Because consequences would be lower under the analysis Pilgrim Watch wants performed, the analysis will not result in demonstrating any new potentially cost beneficial SAMAs. Entergy Decl. at ¶¶ 41-52.

Third, the Pilgrim SAMA analysis has considered much larger radioactive releases than those that occurred at Fukushima for three damaged reactors combined. Among other things, Entergy's experts show that, based on available estimates of Fukushima atmospheric radiological releases, the Pilgrim SAMA analysis considers accident scenarios whose atmospheric releases are far larger than the total release from the three damaged Fukushima reactors. Entergy Decl. at ¶¶ 56-57. More specifically, the atmospheric releases from the accident scenario that account for 80% of the population dose risk and off-site economic cost risk in the Pilgrim SAMA analysis (CAPB-15) are a factor of four times larger that the total release from all three damaged

[33] As the Commission has explained in this proceeding, a SAMA analysis is a "site specific mitigation analysis" where "mean consequence values are multiplied by the estimated frequency of occurrence of specific accident scenarios to determine population dose risk and offsite economic cost risk for each type of accident sequence studied." CLI-11-10, 71 N.R.C. at 316 (emphasis added and omitted).

Fukushima reactors combined. Id. at ¶ 57.[34] In addition, the Pilgrim SAMA analysis considers accident scenarios whose cesium-137 releases are far larger than the total atmospheric and aqueous cesium release estimates for the three damaged Fukushima reactors. Id. at ¶ 63. For CAPB-15, the cesium release estimate is 1.5 times greater than that for the three damaged Fukushima reactors combined. Id. Because the consequence modeling (and thus the cost-benefit analysis) is driven by an analysis of radiological impact, Pilgrim's SAMA analysis already addresses severe accidents with consequences greater than the magnitude of those associated with the Fukushima accident.

Fourth, other ancillary claims raised in Pilgrim Watch's Request (unusability of Cape Cod Bay following a severe accident, lack of SAMG for treating contaminated water, Price Anderson insurance limits) are immaterial for the reasons set forth in Entergy's Declaration at ¶¶ 65-68.

Consequently, Pilgrim Watch cannot demonstrate that a materially different result would be likely were its claims further litigated, and accordingly Pilgrim Watch fails to meet the standard set in 10 C.F.R. § 2.326(a)(3).

4. The Gundersen Declaration Fails to Meet the Affidavit Requirements of Section 2.326(b)

Section 2.326(b) requires that a supporting affidavit "be given by competent individuals with knowledge of the facts alleged, or by experts appropriate to the issues raised." 10 C.F.R. § 2.326(b). In addition, the affidavit must address separately "[e]ach of the criteria" in Section

[34] The Pilgrim SAMA analysis analyzes 19 accident scenarios (or collapsed accident progression bins) and sums the consequences from them. CAPB 15 accounts for 80% of the consequences. Entergy Decl. at ¶¶ 53, 57 and prior Entergy declarations cited therein.

2.326(a) and provide "a specific explanation of why [each] has been met." Id. The Gundersen Declaration fails these requirements.

First, Mr. Gunderson has no qualifications to support Pilgrim Watch's concerns regarding potential aqueous radioactive releases into Cape Cod Bay resulting from a severe nuclear accident at Pilgrim, or SAMA analysis. Although Mr. Gundersen states that he is a peer reviewer for a paper concerning liquid releases from Fukushima, Gundersen Decl. at ¶ 9, he nowhere explains in what context such liquid releases are discussed, or how they relate to Pilgrim. Nor does he explain how reviewing an academic paper provides him with the requisite competence or expertise to opine on such matters as the scope of potential aqueous radioactive releases into Cape Cod Bay, the transport and dispersion of such aqueous releases, the consequences that would result from such releases, or how such consequences could impact the Pilgrim SAMA analysis. Nowhere does Mr. Gundersen demonstrate that he has any education, knowledge, or experience with respect to any of the aqueous release issues raised in Pilgrim Watch's contention, or that he has any education or knowledge of, or experience with, SAMA analysis. Mr. Gundersen does not purport to hold any certifications or other qualifications in these fields. Indeed, none of the areas in which he has worked, as identified in paragraph 8 of his Declaration, appears relevant to aqueous releases of contaminated water stemming from a severe reactor accident, or conducting an adequate SAMA analysis.

Similarly, although Pilgrim Watch devotes a large portion of its Request to describing the Massachusetts coastal marine environment and its economy, PW Request at 13-18, 22-37, nowhere does Mr. Gundersen explain or demonstrate that he has the requisite expertise to provide any "professional judgment" (Gundersen Decl. at ¶ 19) concerning the reports that

Pilgrim Watch cites, or any "opinion" on "hydrodynamic models" or the impact on aquatic food supply as a result of aquatic releases of radioactive contamination (Gundersen Decl. at ¶ 20).

Likewise, while Mr. Gundersen refers to his previous experience and testimony in NRC licensing and other adjudicatory proceedings,[35] nowhere does he explain how any of his prior testimony or experience is in any way relevant to his competence or expertise on the issues raised here. Indeed, for example, Mr. Gundersen's most recent appearances before the ACRS concerned the AP1000 containment design. See PW Request Exhibit 2 (Gundersen Curriculum Vitae) at 4, 5, 6. Nowhere does Mr. Gundersen explain how AP1000 containment design has any relevance to the matters at issue here.

Mr. Gundersen's statement that he was a "Senior Vice President for a nuclear licensee" (Gundersen Decl. at ¶ 4) is an overstatement to the extent that it may suggest that he held that position at a nuclear power plant. As indicated in his Curriculum Vitae, Mr. Gundersen has never been an officer at a nuclear plant. Rather, it appears that he was an officer at a vendor, Nuclear Energy Services, which may have held a minor materials license. PW Request Exhibit 2 (Gundersen Curriculum Vitae) at 14. This provides no basis to establish any qualifications to testify to the consequences from radioactively contaminated aqueous releases following a severe reactor accident, or the proper conduct of a SAMA analysis. In short, absent an appropriate sponsor for its assertions, Pilgrim Watch has failed to carry its heavy burden here.

Second, Mr. Gundersen has "fail[ed] to specifically explain, to the level required by the provisions of Section 2.326(b)," why the Request presents a significant environmental issue or

[35] Mr. Gundersen asserts that he has testified before NRC licensing boards and the Advisory Committee on Reactor Safeguards ("ACRS"), the State of Vermont Public Service Board, the State of Vermont Environmental Court, the Florida Pubic Service Commission, the State of New York Department of Environmental Conservation, and in Federal Court. Gundersen Decl. at ¶ 5.

why a materially different result would have been likely. LBP-11-35 at 59-60. With respect to a significant environmental issue, Mr. Gundersen merely expresses his opinion that Pilgrim Watch has met this standard, Gundersen Decl. at ¶ 23, but nowhere provides "facts or scientific explanation that can logically support his conclusory statement of belief." LBP-11-35 at 62. With respect to the demonstration of a materially different result, Mr. Gundersen again expresses his opinion that Pilgrim Watch has met this requirement, Gundersen Decl. at ¶ 24, but fails to provide any "information regarding how much the mean consequences would be altered by consideration of the facts [Mr. Gundersen] asserts are available from the Fukushima accident." LBP-11-35 at 61. In particular, Mr. Gundersen fails to explain how the facts of the aqueous releases of contaminated water "should be incorporated into the SAMA analysis," or how "those might alter the consequences of the probabilistic computation of the consequences from the entire spectrum of severe accidents considered in the Pilgrim SAMA analysis." Id. at 61-62. Rather, Mr. Gundersen states that he will review Entergy's redone analysis. Gundersen Decl. at ¶ 24. Such a position, however, would impermissibly shift the burden to Entergy to demonstrate why the record should not be reopened, Oyster Creek, CLI-08-28, 68 N.R.C. at 674, and is therefore inconsistent with the requirements of Section 2.326(b).

B. PILGRIM WATCH DOES NOT MEET THE LATE FILING STANDARDS IN 10 C.F.R. § 2.309(C)

Pilgrim Watch's late-filed contention should not be admitted because Pilgrim Watch has shown no good cause for its extreme tardiness, and a balancing of the remaining factors in 10 C.F.R. § 2.309(c) does not outweigh this failure.

Section 2.309(c)(1) provides that non-timely contentions will not be entertained absent a determination by the Board that the contentions should be admitted based upon a balancing of the following factors:

(i) Good cause, if any, for the failure to file on time;

(ii) The nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding;

(iii) The nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding;

(iv) The possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interest;

(v) The availability of other means whereby the requestor's/petitioner's interest will be protected;

(vi) The extent to which the requestor's/petitioner's interests will be represented by existing parties;

(vii) The extent to which the requestor's/petitioner's participation will broaden the issues or delay the proceeding; and

(viii) The extent to which the requestor's/petitioner's participation may reasonably be expected to assist in developing a sound record.

10 C.F.R. § 2.309(c)(1)(i)-(viii). In keeping with the Commission's disfavor of contentions submitted after the initial filing, these factors are "stringent." Oyster Creek, CLI-09-7, 69 N.R.C. at 260, citing Calvert Cliffs, CLI-06-21, 64 N.R.C. at 33. "Late petitioners properly have a substantial burden in justifying their tardiness." Nuclear Fuel Services, CLI-75-4, 1 N.R.C. at 275.

Commission case law places most importance on whether the petitioner has demonstrated sufficient good cause for the untimely filing.[36] "Good cause" has been consistently interpreted to mean that a proposed new contention be based on information that was not previously available, and was timely submitted in light of that new information. Millstone, CLI-09-5, 69 N.R.C. at 125-26, citing Pacific Gas & Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-1, 67 N.R.C. 1, 6 (2008).

[36] Watts Bar, CLI-10-12, 71 N.R.C. at 322-23; PFS, CLI-00-02, 51 N.R.C. at 79.

For the same reasons discussed supra that the contention is not timely under sections 2.326(a)(1) and 2.309(f)(2), Pilgrim Watch has failed to demonstrate good cause for its very late-filed contention. As demonstrated there, under well-established Commission precedent, Pilgrim Watch has waited far too long to raise its concerns.

Because it has failed to demonstrate good cause, Pilgrim Watch must make a "compelling" showing with respect to the other factors. Comanche Peak, CLI-93-4, 37 N.R.C. at 165. In other words,

> A petitioner's showing must be highly persuasive; it would be a rare case where [the Commission] would excuse a non-timely petition absent good cause.

Watts Bar, CLI-10-12, 71 N.R.C. at 323 (footnote omitted).

In balancing the remaining late-filed contention factors, the Commission grants considerable weight to factors seven and eight.

> We regard as highly important the intervenor's ability to contribute to the development of a sound record on a particular contention. We also are giving significant weight to the potential delay, if any, which might ensue from admitting a particular contention.

Consumers Power Co. (Midland Plant, Units 1 and 2) LBP-82-63, 16 N.R.C. 571, 577 (1982) (citations omitted), citing South Carolina Electric & Gas Co. (Virgil C. Summer Nuclear Station, Unit 1), ALAB-642, 13 N.R.C. 881, 895 (1981); see also Commonwealth Edison Co. (Braidwood Nuclear Power Station, Units 1 and 2), CLI-86-8, 23 N.R.C. 241, 246-47 (1986). Both the seventh and eighth factors weigh heavily against admitting Pilgrim Watch's new contention.

With regard to the seventh factor, adding a new contention will, without a doubt, delay and broaden the proceeding significantly. "[T]he introduction of a new contention, well after the contested proceeding closed, would broaden the issues and delay the proceeding." Vogtle, CLI-

11-08 at 18. To the contrary, Pilgrim Watch claims no inappropriate delay, arguing that the seventh factor addresses "only that delay which can be attributed directly to the tardiness of the petition." PW Request at 44; citing Long Island Lighting Company (Jamesport Nuclear Power Station), ALAB-292, 2 N.R.C. 631, 650 n.26 (1975) and South Carolina Electric & Gas Co. (Virgil C. Summer Nuclear Station, Unit 1), LBP-81-11, 13 N.R.C. 420, 425 (1981). Pilgrim Watch's reliance on Jamesport and Summer is, however, mistaken because both cases looked to whether the new contentions would significantly delay and broaden the proceeding wholly apart from any tardiness of the intervenors' petitions.

In Jamesport, the Oil Heat Institute of Long Island, Inc. ("OHILI") appealed to the Atomic Safety and Licensing Appeal Board ("Appeal Board") the licensing board's denial of OHILI's untimely amended petition for leave to intervene in the construction permit proceeding. Contrary to Pilgrim Watch's claim, the Appeal Board did evaluate the seventh factor. It specifically looked to whether the contention would introduce new issues into the hearing, and whether the proceeding would be delayed. The Appeal Board stated:

> Since its intervention petition introduces no new issues, the scope of the proceeding would not be broadened by OHILI's participation. And, discovery not having as yet been instituted, there is no real danger that the commencement of the evidentiary proceeding would be delayed.

Jamesport, ALAB-292, 2 N.R.C. at 650 (emphasis added) (footnote omitted). Thus, while exhibiting characteristics that posed "no real danger" of delaying the evidentiary proceeding, i.e., no new issues and discovery not yet instituted, the Appeal Board nevertheless rejected the petition because OHILI failed to make a substantial showing of good cause for failure to file its petition on time.

Here, unlike OHILI's petition, Pilgrim Watch's Request would significantly broaden and delay the proceeding. At the eleventh hour, Pilgrim Watch seeks to re-open the record to litigate

completely new issues and requests that Entergy completely "redo" the SAMA analysis. In these circumstances, there can be no doubt that admitting Pilgrim Watch's late-filed contention poses a significant "real danger" that this proceeding would be further delayed significantly. Id.

Summer likewise does not support Pilgrim Watch's position. The licensing board in that case admitted several late filed contentions in an ongoing proceeding, reasoning that similar contentions had already been admitted which had not yet gone to hearing and were not even susceptible to summary disposition. See Summer, LBP-81-11, 13 N.R.C. at 425-30. The licensing board further explained that the petitioner could be admitted without making "any special accommodations…that would result in delaying the hearing," such as extending discovery or rescheduling the hearing date. Id. at 425. Thus, in Summer, there were similar contentions to be litigated and the proceeding would not be delayed by the admission of the late-filed contentions. In contrast, here, of the two contentions admitted in this proceeding, both were resolved in favor of Entergy, and only the appeal of Contention 3 remains pending before the Commission. The three untimely-filed, Fukushima-related contentions raised in this proceeding have been rejected by the Board and have been appealed to the Commission. Clearly, starting another hearing from scratch to litigate a new contention at this very late hour would delay issuance of the renewed license by months.

Concerning the eighth factor, it cannot be reasonably expected that Pilgrim Watch will assist in developing a sound record. "[W]hen a petitioner addresses this … criterion it should set out with as much particularity as possible the precise issues it plans to cover, identify its prospective witnesses, and summarize their proposed testimony." Watts Bar, CLI-10-12, 71 N.R.C. at 326 (footnote omitted). Here, Pilgrim Watch merely asserts that it will rely on government and licensee documents, and testimony from Mr. Gundersen, but fails to set out with

any particularity the precise issues it plans to cover or what its witnesses' testimony will address. PW Request at 44. Mr. Gundersen merely states that he has "reviewed the Request for Hearing and support[s] its content." Gundersen Decl. at ¶ 19. He goes on to make conclusory assertions that, in his opinion and judgment, Pilgrim Watch has raised a significant issue and has demonstrated that a materially different result in the SAMA analysis would be likely, id. at ¶¶ 23-24, but nowhere does he provide any factual or technical information supporting these assertions. In addition, Mr. Gundersen asserts that certain information is needed from Entergy and the NRC Staff to conduct a "thorough scientific analysis," id. at ¶ 39, but nowhere provides a summary of what his purported thorough scientific analysis would show, or how that analysis would demonstrate a materially different result in the Pilgrim SAMA analysis. Clearly this falls short of the Commission's expectation for a summary of proposed testimony.

Further, Pilgrim Watch nowhere identifies any witness or summarizes any witness testimony for its many assertions regarding the marine impacts resulting from any hypothetical aqueous releases of contaminated water into Cape Cod Bay. And although Mr. Gundersen may "support" Pilgrim Watch's aqueous release assertions, as discussed above, the education, training, and experience that Mr. Gundersen cites in his Affidavit do not, on their face, qualify him to support those assertions. Indeed, Mr. Gundersen asserts – without any scientific or technical analysis, citation, reference or support – that "according to [unidentified] other experts over time the entire Pacific Ocean will become contaminated" and "[i]t is certainly reasonable to assume that the entire Cape Cod Bay would become unusable by the public for its intended function after a severe accident at Pilgrim Station." Gundersen Decl. at ¶ 33. These assertions are baseless. As explained in Entergy's Declaration, recent measurements of radioactive contamination in the Pacific Ocean off the coast of Fukushima are so low as to be undetectable,

and any contamination released into Cape Cod Bay would be sufficiently diluted and dispersed within a matter of months so as to be below EPA regulatory limits. Entergy Decl. at ¶¶ 43, 48, 60-61, 66.

Thus, factors one, seven and eight – the three most significant factors – count heavily against Pilgrim Watch. The other factors in 10 C.F.R. § 2.309(c)(1) are less important (see, e.g., Diablo Canyon, CLI-08-1, 67 N.R.C. at 6; Comanche Peak, CLI-93-4, 37 N.R.C. at 165), and therefore cannot outweigh Pilgrim Watch's failure to demonstrate good cause or meet factors seven and eight.

C. PILGRIM WATCH'S NEW CONTENTION DOES NOT MEET THE STRICT CONTENTION ADMISSIBILITY REQUIREMENTS

Even if Pilgrim Watch had met the standards for reopening a closed record and the standards for a late contention (which it has not), its contention would still be inadmissible because it does not satisfy the pleading requirements in 10 C.F.R. § 2.309(f)(1). Even if a proponent of a new contention satisfies the requirements of 10 C.F.R. § 2.309(f)(2) and 10 C.F.R. § 2.309(c), it must still demonstrate that its new contention satisfies the admissibility standards in 10 C.F.R. § 2.309(f)(1)(i)-(vi). Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), CLI-93-12, 37 N.R.C. 355, 362-63 (1993).

10 C.F.R. § 2.309(f)(1) requires that a hearing request for any contention be set forth with particularity and:

> (i) Provide a specific statement of the issue of law or fact to be raised or controverted;
>
> (ii) Provide a brief explanation of the basis for the contention;
>
> (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;

> (iv) Demonstrate that the issue raised in connection is material to the findings the NRC must make to support the action that is involved in the proceeding;
>
> (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; and
>
> (vi) Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.

10 C.F.R. § 2.309(f)(1)(i)-(vi). Pilgrim Watch's contention does not meet these standards.

1. The Late Filed Contention is Not Within the Scope of the Proceeding and Material to the Findings that the NRC Must Make

The late-filed contention is inadmissible because Pilgrim Watch fails to demonstrate that it is within the scope of the proceeding, as required by 10 C.F.R. § 2.309(f)(1)(iii). Pilgrim Watch appears to be arguing that Entergy must implement SAMAs in order to protect the public health and safety. For example, Pilgrim Watch claims that "[t]he purpose of SAMA review is to ensure that any plant changes that have a potential for significantly improving severe accident safety performance are identified and addressed." PW Request at 3. Similarly, Pilgrim Watch asserts that "NEPA requires that these technical gaps be addressed prior to any licensing decision." Id. (emphasis added and emphasis in original, respectively); see also id. at 6, 8, 38.

To the extent that Pilgrim Watch's argues that SAMAs need to be implemented to protect public health and safety, these arguments are outside the scope of the Commission's requirements for license renewal under 10 C.F.R. Part 54. The Commission has specifically limited the scope of the license renewal safety review to managing the aging of certain systems,

structures, and components, and the review of time-limited aging analyses. See Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 N.R.C. 3, 7-8 (2001). Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 N.R.C. 358, 363 (2002). For the same reason, Pilgrim Watch fails to demonstrate that this contention is material to the findings that the NRC must make to support license renewal. There is no requirement in the NRC's license renewal rules that an applicant must take action to mitigate severe accident risk in order to protect the public health and safety. See 10 C.F.R. Part 54. Consequently, Pilgrim Watch's contention also fails to meet 10 C.F.R. § 2.309(f)(1)(iv).

In addition, for the reasons previously explained, Pilgrim Watch's assertions that the Pilgrim SAMA analysis must consider economic impacts resulting from "perceived or feared contamination irrespective of actual readings" (PW Request at 18; see also id. at 19, 31-32; Gundersen Decl. at ¶ 23) are not cognizable under NEPA. CLI-10-11, 71 N.R.C. at 310 n.113 (citing Metropolitan Edison, 460 U.S. at 775-76). Consequently, Entergy (and the NRC) need not consider any economic damages resulting from fear of risk of non-existent contamination, either cleaned up or never present in the first place, and therefore this issue is outside the scope of the proceeding.

Finally, to the extent that Pilgrim Watch challenges generic findings in the GEIS (see PW Request at 11, claiming that the GEIS' characterization of societal and economic impacts of severe impacts is incorrect), such challenge is impermissible absent a waiver of the applicable rule. 10 C.F.R. § 2.335(a). Pilgrim Watch has neither sought nor obtained such a waiver, therefore this challenge is outside the scope of this proceeding.

2. The Late Filed Contention Fails to Provide Sufficient Information Showing that a Genuine Dispute Exists On a Material Issue of Law or Fact

Pilgrim Watch's new contention is also inadmissible because it is not supported by sufficient information to show that a genuine dispute exists with the Applicant on a material issue of law or fact, as required by 10 C.F.R. § 2.309(f)(1)(vi). Pilgrim Watch's arguments are insufficient to demonstrate a genuine material dispute with respect to Pilgrim's SAMA analysis. Under the NRC's Rules of Practice, "a protestant does not become entitled to an evidentiary hearing merely on request, or on a bald or conclusory allegation that such a dispute exists. The protestant must make a minimal showing that material facts are in dispute, thereby demonstrating that an 'inquiry in depth' is appropriate." 54 Fed. Reg. 33,168, 33,171 (Aug. 11, 1989) (quoting Conn. Bankers Ass'n v. Bd. of Governors, 627 F.2d 245, 251 (D.C. Cir. 1980) (emphasis added)).

As a threshold matter, Pilgrim Watch does not make any minimal showing that its claims would affect the outcome of the Pilgrim SAMA analysis and are therefore material. The Commission has defined a "material" issue as meaning one where "resolution of the dispute would make a difference in the outcome of the licensing proceeding." 54 Fed. Reg. at 33,172 (emphasis added). Here, the PW Request sets forth nothing to establish that the asserted deficiencies would, if accounted for as requested by Pilgrim Watch, alter the result of the Pilgrim SAMA analysis.

In order for an additional SAMA to become potentially cost-beneficial, the benefit (risk averted) would need to increase by more than a factor of two, i.e., more than 100%. See Entergy Decl. at ¶ 49. Pilgrim Watch asserts no facts and provides no explanation showing that, were its concerns accounted for, the risk averted (i.e., frequency of occurrence multiplied by consequences) would even approach that mark. As the Commission has explained in this

proceeding, Pilgrim Watch must show that it is "genuinely plausible that inclusion of an additional factor or use of other assumptions or models may change the cost-benefit conclusions for the SAMA candidates evaluated," otherwise "no purpose would be served to further refine the SAMA analysis, whose goal is only to determine what safety enhancements are cost-effective to implement." CLI-10-11, 71 N.R.C. at 317. Pilgrim Watch has not met this burden. For all of its claims that the SAMA analysis focuses on the consequences of atmospheric releases to the exclusion of the consequences of aqueous releases, brought to light by the Fukushima Daiichi accident, nowhere does Pilgrim Watch ever indicate the probability-weighted costs that would be incurred if the SAMA analysis were to consider that information. In other words, nowhere does Pilgrim Watch explain why a redone SAMA analysis that assumes that some portion of the radioactive release is emitted into the water pathway will result in greater consequences than the current SAMA analysis, which assumes that all of the radioactive release for an accident scenario is emitted into the atmosphere.[37] Nor does Pilgrim Watch make any showing that the cost-benefit analysis using this information would change the results of the SAMA analysis.

Pilgrim Watch's contention fails for another material reason. Pilgrim Watch fails to dispute or otherwise challenge, in light of Fukushima, the adequacy of the severe accident atmospheric releases evaluated in the Pilgrim SAMA analysis. The severe accident releases used for the Pilgrim SAMA analysis represent a range of atmospheric releases from small to very large based on the different possible severe accident scenarios for the Pilgrim plant, and include releases that are many times greater than the atmospheric releases from the three damaged Fukushima reactors. Entergy Decl. at ¶¶ 55-57. Likewise, the Pilgrim SAMA analysis considers cesium releases to the atmosphere that are far greater than the total cesium releases to

[37] As explained in Entergy's Declaration, such a change in assumptions would not result in greater consequences. Entergy Decl. at ¶ 50.

the air and water pathways from the three damaged Fukushima units. Id. at ¶¶ 62-64. Nor does Pilgrim Watch make any showing that consideration of its concerns would increase the benefit (risk averted) by a factor of more than two that is necessary to change the results of the SAMA analysis. Entergy Decl. at ¶ 49. As such, Pilgrim Watch's newly proffered contention fails to raise a material dispute.

In light of the large margin inherent in the Pilgrim SAMA analysis, Pilgrim Watch was required to have pled facts to establish the materiality of its asserted deficiencies. Such a showing – necessary to avoid a meaningless "EIS editing session[]," of the type the Commission has warned against (see Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 N.R.C. 419, 431 (2003)) – is absent from the PW Request. Mitigation alternatives need only be evaluated in "sufficient detail to ensure that environmental consequences" of the proposed project "have been fairly evaluated." Id. (footnote omitted). Pilgrim Watch provides no basis to suggest that Pilgrim's SAMAs have been unfairly evaluated due to its assumption that the radioactive release from a severe accident is emitted into the atmosphere. In fact, such assumption is entirely reasonable and appropriate given the greater consequences to the public and economy that result from atmospheric releases as compared to aqueous releases. Pilgrim Watch provides no information demonstrating that any of its alleged deficiencies are sufficiently significant to alter the SAMA analysis. Pilgrim Watch provides no basis – no analysis or expert opinion – demonstrating that any of its allegations would make a difference in the outcome.

IV. CONCLUSION

In sum, Pilgrim Watch's Request should be denied because Pilgrim Watch has not met the standards for reopening the record, has not met the standards for raising a late contention, and

has not met the standards for an admissible contention. The purported lessons learned from the Fukushima Daiichi accident that Pilgrim Watch uses as justification for this late filing appear to be nothing more than a pretext for raising issues that could have been pled at the outset of this proceeding.

For all of the foregoing reasons, Pilgrim Watch's Request should be denied.

/Signed Electronically by Paul A. Gaukler/

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Dated: December 13, 2011

Counsel for Entergy

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	)	
	)	
Entergy Nuclear Generation Company and	)	Docket No. 50-293-LR
Entergy Nuclear Operations, Inc.	)	ASLBP No. 06-848-02-LR
	)	
(Pilgrim Nuclear Power Station)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of Entergy's Answer Opposing Pilgrim Watch Request for Hearing on a New Contention Regarding Inadequacy of Environmental Report, Post Fukushima and the Declaration of Mr. Joseph R. Lynch and Dr. Kevin R. O'Kula in Support of Entergy's Answer Opposing Pilgrim Watch Request for Hearing on a New Contention Regarding Inadequacy of Environmental Report, Post Fukushima, both dated December 13, 2011, were provided to the Electronic Information Exchange for service on the individuals below, this 13th day of December, 2011.

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