

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of )  
 )  
ENTERGY NUCLEAR GENERATION )  
COMPANY AND ENTERGY NUCLEAR ) Docket No. 50-293-LR  
OPERATIONS, INC. )  
 )  
(Pilgrim Nuclear Generating Station) )

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NRC STAFF'S ANSWER IN OPPOSITION TO PILGRIM WATCH'S PETITION FOR REVIEW  
OF LBP-08-22, LBP-07-13, LBP-06-23 AND INTERLOCUTORY DECISIONS

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TABLE OF CONTENTS

	<u>Page</u>
TABLE OF AUTHORITIES .....	iv
INTRODUCTION .....	1
BACKGROUND .....	2
DISCUSSION.....	5
I.    Standard of Review .....	6
II.   The Board Did Not Err in LBP-08-22 or Interlocutory Decisions and Orders .....	7
A.   The Board Properly Clarified Contention 1 and Limited the Scope of the Proceeding in LBP-08-22 and Interlocutory Decisions .....	7
B.   The Board Did Not Err in Its Application of the Reasonable Assurance Standard .....	12
C.   The Board Did Not Err in Refusing to Strike Testimony or Allow PW to Submit New Evidence After the Hearing.....	14
III.  The Board Did Not Err in Granting Summary Disposition for Contention 3.....	15
A.   The Board Properly Considered Issues Raised by Contention 3, As Admitted .....	17
B.   The Board Properly Applied the Summary Disposition Rules to the Contention 3 SD Motion.....	18
1.   No Dispute on Material Facts Related to the Use of MACCS2 Code Exists.....	19
2.   No Dispute on Material Facts Related to the Meteorological Methodologies Exists .....	20
3.   No Dispute on Material Facts Related to the Health Costs and Emergency Evacuation Exists .....	20
4.   No Dispute on Material Facts Related to the Economic Consequences Exists .....	22
IV.  The Board Did Not Err in Dismissing Contention 4 (SAMA Analysis of Spent Fuel Pool).....	22

CONCLUSION ..... 25

TABLE OF AUTHORITIES

	<u>Page</u>
<u>JUDICIAL DECISIONS</u>	
<i>Massachusetts v. United States</i> , 522 F.3d 115 (1 <sup>st</sup> Cir. 2008).....	3, 4
<i>Anderson v. Bessemer City</i> , 470 U.S. 564 (1985).....	6
<i>Union of Concerned Scientists v. NRC</i> , 880 F.2d 552 (D.C. Cir. 1989).....	12, 13
<i>United Paperworkers International Union, Local 14, AFL-CIO-CLC, et al., v. International Paper Company</i> , 64 F. 3d 28 (1 <sup>st</sup> Cir. 1995).....	19
<i>Reich v. John Alden Life Insurance Company</i> , 126 F. 3d 1 (1 <sup>st</sup> Cir. 1997).....	19
<u>ADMINISTRATIVE DECISIONS</u>	
<u>Commission:</u>	
<i>Entergy Nuclear Vermont Yankee LLC and Entergy Nuclear Operations, Inc.</i> (Vermont Yankee Nuclear Power Station) and <i>Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.</i> (Pilgrim Nuclear Power Station), CLI-07-03, 65 NRC 13 (2007).....	3
<i>Entergy Nuclear Vermont Yankee LLC and Entergy Nuclear Operations, Inc.</i> (Vermont Yankee Nuclear Power Station) and <i>Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.</i> (Pilgrim Nuclear Power Station), CLI-07-13, 65 NRC 211 (2007).....	3
<i>Advanced Medical Systems, Inc.</i> (One Factory Row, Geneva, Ohio 40441), CLI-94-6, 39 NRC 285, 297-98 (1994).....	6
<i>Private Fuel Storage, LLC</i> (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11 (2003).....	6, 7
<i>Tennessee Valley Authority</i> (Watts Bar Nuclear Plant, Unit 1; Sequoyah Plants, Units 1 & 2; Browns Ferry Nuclear Plant, Units 1, 2 & 3), CLI-04-24, 60 NRC 160 (2004).....	6, 7, 13
<i>Kenneth G. Pierce</i> (Shorewood, Illinois), CLI-95-6, 41 NRC 381 (1995).....	7
<i>USEC, Inc.</i> (American Centrifuge Plant), CLI-06-9, 63 NRC 433 (2006).....	7
<i>Florida Power &amp; Light Co.</i> (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3 (2001).....	10, 11, 23

*Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3),  
CLI-06-4, 63 NRC 32 (2006)..... 10

*Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station,  
Units 1 and 2), CLI-01-20, 54 NRC 211 (2001) ..... 11

*AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-07-17,  
66 NRC 327 (2007)..... 13

Atomic Safety and Licensing Appeal Board:

*Union Electric Co.* (Callaway Plant, Unit 1), ALAB-740, 18 NRC 343 (1983)..... 6

*General Public Utilities* (Three Mile Island Nuclear Station, Unit No. 1) ALAB-881,  
26 NRC 465 (1987)..... 6

*Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-788,  
20 NRC 1102 (1984)..... 7, 15

*Louisiana Power & Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732,  
17 NRC 1076 (1983)..... 7, 15

*Commonwealth Edison Co.* (Zion Station, Units 1 and 2), ALAB-616,  
12 NRC 419 (1980)..... 13

Atomic Safety and Licensing Board:

*Public Service Co. of New Hampshire* (Seabrook Station, Units 1 & 2), LBP-83-32A,  
17 NRC 1170 (1983)..... 18

REGULATIONS

10 C.F.R. § 2.309..... 23

10 C.F.R. § 2.311..... 3

10 C.F.R. § 2.326..... 15

10 C.F.R. § 2.326(a)(3)..... 15

10 C.F.R. § 2.335..... 23

10 C.F.R. § 2.341(b)..... 5

10 C.F.R. § 2.341(b)(3)..... 1

10 C.F.R. § 2.341(b)(4)..... 2, 6, 7

10 C.F.R. § 2.710(d)(2).....	19
10 C.F.R. § 20.....	7, 10
10 C.F.R. § 50.....	7, 10
10 C.F.R. § 51.53.....	23
10 C.F.R. § 54.....	7, 8
10 C.F.R. § 54.3.....	10
10 C.F.R. § 54.4.....	9, 11
10 C.F.R. § 54.4(a).....	8, 9
10 C.F.R. § 54.4(b).....	9, 11
10 C.F.R. § 54.21.....	8, 9, 11
10 C.F.R. § 54.21(a).....	9, 10
10 C.F.R. § 54.29.....	9, 10, 11
10 C.F.R. § 54.30(b).....	10

MISCELLANEOUS

Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. 22,461 (May 8, 1995).....	9, 11
Nuclear Power Plant License Renewal, Final Rule, 56 Fed. Reg. 64,943 (Dec. 13, 1991) .....	11
Disposal of High-Level Radioactive Wastes in a Proposed Geologic Repository at Yucca Mountain, Nevada, 66 Fed. Reg. 55,732 (Nov. 2, 2001) .....	13
Policy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants, 50 Fed. Reg. 32,138 (Aug.1985) .....	23
NUREG-1437, “Generic Environmental Impact Statement for License Renewal of Nuclear Plants,” Final Report, Vol. 1 (May 1996) (GEIS) .....	23

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INTRODUCTION

Pursuant to 10 C.F.R. § 2.341(b)(3), the staff of the U.S. Nuclear Regulatory Commission ("Staff") hereby responds to Pilgrim Watch's ("PW") petition for review ("Petition") of the Atomic Safety and Licensing Board's ("Board") Initial Decision, LBP-08-22, 68 NRC \_\_\_\_ (October 30, 2008) (slip op.) ("Initial Decision" or "LBP-08-22");<sup>1</sup> the Board's Memorandum and Order (Ruling on Motion to Dismiss Petitioner's Contention 3 Regarding Severe Accident Mitigation Alternatives), LBP-07-13, 66 NRC 131 (2007) ("LBP-07-13"); the Board's Memorandum and Order (Ruling on Standing and Contentions of Petitioners Massachusetts Attorney General and Pilgrim Watch), LBP-06-23, 64 NRC 257 (2006) ("LBP-06-23"); and other interlocutory decisions in the proceeding.<sup>2</sup> For the reasons set forth herein, the Staff submits

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<sup>1</sup> Judge Young filed a separate concurring opinion on October 31, 2008. Concurring Opinion of Administrative Judge Ann Marshall Young to Initial Decision issued October 30, 2008, LBP-08-22 (October 31, 2008) (slip op.) ("Concurring Opinion").

<sup>2</sup> Pilgrim Watch's Petition for Review of LBP-06-848 [sic], LBP-07-13, LBP-06-23 and the Interlocutory Decisions in the Pilgrim Nuclear Power Station Proceeding (November 12, 2008). The other interlocutory decisions discussed in the Petition include the Board's October 17, 2007 Memorandum and Order (Ruling on Entergy's Motion for Summary Disposition of Pilgrim Watch's Contention 1, Regarding (continued. . .)

that the Petition should be denied, on the grounds that PW has not met the criteria set forth in 10 C.F.R. § 2.341(b)(4)(i)-(v) for Commission review. Moreover, the Board's rulings and decisions are well reasoned, correct, and consistent with Commission precedent.

### BACKGROUND

This proceeding concerns Entergy Nuclear Operations, Inc.'s ("Entergy" or "Applicant") application to renew its operating license for the Pilgrim Nuclear Generating Station ("Pilgrim"). On May 25, 2006, PW filed a petition to intervene in this matter, submitting five contentions for consideration by the Board.<sup>3</sup> In LBP-06-23, the Board granted the petition, admitting PW's Contentions 1 and 3. As admitted, Contention 1, which challenged the adequacy of the Applicant's aging management program (AMP) for buried pipes and tanks, read as follows:

The Aging Management program proposed in the Pilgrim Application for license renewal is inadequate with regard to aging management of buried pipes and tanks that contain radioactively contaminated water, because it does not provide for monitoring wells that would detect leakage.<sup>4</sup>

Contention 3, which challenged the Applicant's Severe Accident Mitigation Alternative (SAMA) Analysis, was admitted in the following form:

Applicant's SAMA analysis for the Pilgrim plant is deficient in that the input data concerning (1) evacuation times, (2) economic

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Adequacy of Aging Management Programs for Buried Pipes and Tanks and Potential Need for Monitoring Wells To Supplement Program), LBP-07-12, 66 NRC 113 (2007) ("LBP-07-12"); the Board's December 19, 2007 Order (Revising Schedule for Evidentiary Hearing and Responding to Pilgrim Watch's December 14 and 15 Motions) (unpublished) ("December 19 Order"); the Board's January 11, 2008 Order (Denying Pilgrim Watch's Motion for Clarification) (unpublished) ("January 11 Order"); and the Board's June 4, 2008 Order (Ruling on Pilgrim Watch's Motions Regarding Testimony and Proposed Additional Evidence Relating to Pilgrim Watch Contention 1) (unpublished) ("June 4 Order"). See Petition at 1, 9.

<sup>3</sup> Request for Hearing and Petition to Intervene by Pilgrim Watch (May 25, 2006).

<sup>4</sup> LBP-06-23 at 315. Upon admitting this contention, the Board explained that "the contention is limited to those underground pipes and tanks that do fall within those described in 10 CFR Part 54, which is an issue that may require further clarification as the proceeding progresses." *Id.*

consequences, and (3) meteorological patterns are incorrect, resulting in incorrect conclusions about the costs versus benefits of possible mitigation alternatives, such that further analysis is called for.<sup>5</sup>

The Board rejected PW's Contention 4, which asserted that the environmental report was inadequate because it failed to address SAMAs with regard to spent fuel pool fires,<sup>6</sup> along with a substantially similar contention filed by the Massachusetts Attorney General ("MassAG").<sup>7</sup>

The Commission denied both the MassAG's appeal under 10 C.F.R. § 2.311 and its subsequent motion for reconsideration.<sup>8</sup>

On May 17 and June 8, 2007, Entergy filed motions for summary disposition of Contentions 3 and 1, respectively.<sup>9</sup> The Board subsequently denied the motion as to Contention 1 in LBP-07-12 and granted the motion for Contention 3 in LBP-07-13, leaving Contention 1 as the remaining admitted contention. In LBP-07-12 the Board clarified that the sole issue in Contention 1 was

whether or not monitoring wells are necessary to assure that the buried pipes and tanks at issue will continue to perform their safety function

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<sup>5</sup> *Id.* at 341.

<sup>6</sup> *Id.* at 280.

<sup>7</sup> *Id.*; see also Massachusetts Attorney General's Request for a Hearing and Petition for Leave to Intervene with Respect to Entergy Nuclear Operations Inc.'s Application for Renewal of the Pilgrim Nuclear Power Plant Operating License and Petition for Backfit Order Requiring New Design Features to Protect Against Spent Fuel Pool Accidents (May 26, 2006). The MassAG submitted only one contention.

<sup>8</sup> See *Entergy Nuclear Vermont Yankee LLC and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station) and *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-07-03, 65 NRC 13, 16 (2007); *Entergy Nuclear Vermont Yankee LLC and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station) and *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-07-13, 65 NRC 211, 212 (2007). The MassAG appealed the Commission's decisions to the United States Court of Appeals for the First Circuit, which upheld the Commission's denial of the MassAG's petition. *Massachusetts v. United States*, 522 F.3d 115, 118 (1<sup>st</sup> Cir. 2008).

<sup>9</sup> Entergy's Motion for Summary Disposition of Pilgrim Watch Contention 3 (May 17, 2007) ("Contention 3 SD Motion"); Entergy's Motion for Summary Disposition of Pilgrim Watch Contention 1 (June 8, 2007).

during the license renewal period — or, put another way, *whether Pilgrim's existing AMPs have elements that provide appropriate assurance as required under relevant NRC regulations that the buried pipes and tanks will not develop leaks so great as to cause those pipes and tanks to be unable to perform their intended safety functions.*<sup>10</sup>

The Board specifically noted that “issues concerned with monitoring of radiological releases, or determinations of how leakage could harm health or the environment” were not legitimately in dispute.<sup>11</sup> Subsequently, in its December 19 Order, the Board again advised the parties that “[o]ngoing monitoring is not within the scope of this proceeding,” and further clarified that “[t]he single admitted contention relates to whether or not Applicant’s AMPs are sufficient to enable it to determine whether or not certain buried pipes and tanks are leaking at such great rates that they cannot satisfy their respective intended safety functions.”<sup>12</sup> This was reaffirmed in the Board’s January 11 Order<sup>13</sup> denying PW’s motion for reconsideration.<sup>14</sup>

On April 10, 2008, the Board convened an evidentiary hearing on Contention 1 in Plymouth, Massachusetts. At the close of the hearing, the Board, in response to a First Circuit Court of Appeals decision ordering a brief stay of the closing of the hearing,<sup>15</sup> did not formally close the evidentiary record.<sup>16</sup> On June 4, 2008, at the direction of the Commission,<sup>17</sup> the Board

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<sup>10</sup> LBP-07-12 at 129 (emphasis added). The Board also stated that “prevention of leaks *per se* is not a stated objective of any relevant aging management program,” but that a “clear goal of an AMP” is the “prevention of an aging-induced leak large enough to compromise the ability of buried piping or tanks to fulfill their intended safety function.” *Id.*

<sup>11</sup> *Id.* at 130 n.81.

<sup>12</sup> December 19 Order at 1.

<sup>13</sup> January 11 Order at 3-7.

<sup>14</sup> Pilgrim Watch Motion for Reconsideration ASLBP No. 06-848-02 (Dec. 28, 2007).

<sup>15</sup> *Massachusetts v. United States*, 522 F.3d at 130.

<sup>16</sup> Official Transcript of Pilgrim Evidentiary Hearing Held in Plymouth, MA (“Tr.”) at 870.

issued an Order formally closing the evidentiary record for Contention 1.<sup>18</sup> In the same Order, the Board denied two PW motions<sup>19</sup> which sought to strike certain Entergy and Staff testimony and to add additional evidence to the Contention 1 evidentiary record.<sup>20</sup>

On October 30, 2008, a majority of the Board issued its Initial Decision, LBP-08-22, on the admitted contention, and on October 31, 2008, Judge Young issued a Concurring Opinion.

### DISCUSSION

Because the Board's decision in LBP-08-22 disposed of PW's sole remaining contention, a petition for Commission review is authorized by 10 C.F.R. § 2.341(b). Section 2.341(b)(1) provides for *discretionary* Commission review of "a full or partial initial decision by a presiding officer." In deciding whether to grant review, the Commission considers whether the petition raises a *substantial question* with respect to the following standards:

- (1) a finding of fact is clearly erroneous;
- (2) a necessary legal conclusion is without precedent or conflicts with existing law;
- (3) the appeal raises a substantial and important question of law or policy;
- (4) the proceeding involved a prejudicial procedural error; or
- (5) any other consideration the Commission determines to be in the public interest.

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<sup>17</sup> *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-08-09, 67 NRC \_\_\_\_ (May 16, 2008) (slip op. at 5). The Commission clarified that, because the First Circuit issued its stay to permit Massachusetts to seek "interested state" status in the Pilgrim renewal proceeding, closing the record would not affect Massachusetts' right to participate in the proceeding because "Massachusetts's concerns are entirely unrelated to Pilgrim Watch Contention 1." *Id.* (slip op. at 3-5).

<sup>18</sup> Order (Ruling on Pilgrim Watch's Motions Regarding Testimony and Proposed Additional Evidence Relating to Pilgrim Watch Contention 1) at 3-4 (unpublished) ("June 4 Order").

<sup>19</sup> Pilgrim Watch Motion to Strike Incorrect and Misleading Testimony from the Record (May 15, 2008); Pilgrim Watch Motion to Include as Part of the Record Exhibits Attached to Pilgrim Watch Motion to Strike Incorrect and Misleading Testimony from the Record of May 15, 2008 (May 27, 2008).

<sup>20</sup> June 4 Order at 10.

10 C.F.R. § 2.341(b)(4). The burden is on PW, the petitioner, to clearly identify the error in the Board's decision and thereby demonstrate that Commission review is warranted.<sup>21</sup>

As explained more fully below, PW has failed to demonstrate that the Board's factual findings are clearly erroneous, that the Board's legal conclusions depart from or are contrary to established law, or that the Board's procedural rulings resulted in actual prejudice. Therefore, PW has not met its burden under 10 C.F.R. § 2.341(b)(4).

#### I. Standard of Review

The Commission's standard regarding "clear error" is quite high, requiring a showing that the Board's findings are "not even plausible in light of the record viewed in its entirety."<sup>22</sup> The Commission defers to a licensing board's findings of fact as long as the "Licensing Board has issued a plausible decision that rests on carefully rendered findings of fact," and is particularly deferential to a board's determinations of witness credibility and the weight to be given to witness testimony.<sup>23</sup> Thus, the Commission will reject or modify a Licensing Board's findings only if, after accounting for appropriate deference to the "primary fact finder," the Commission is "convinced that the record *compels* a different result."<sup>24</sup> The Commission will not overturn a board's findings simply because it might have reached a different result or because the record could support a view sharply different from that of the Board.<sup>25</sup>

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<sup>21</sup> See *Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 40441), CLI-94-6, 39 NRC 285, 297-98 (1994).

<sup>22</sup> *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-26 (2003) ("*PFS*") (citing *Anderson v. Bessemer City*, 470 U.S. 564, 573-76 (1985)).

<sup>23</sup> *Id.*; *Union Electric Co.* (Callaway Plant, Unit 1), ALAB-740, 18 NRC 343, 368 (1983).

<sup>24</sup> *General Public Utilities* (Three Mile Island Nuclear Station, Unit No. 1) ALAB-881, 26 NRC 465, 473 (1987)(emphasis added).

<sup>25</sup> See *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Unit 1; Sequoyah Plants, Units 1 & 2; Browns Ferry Nuclear Plant, Units 1, 2 & 3), CLI-04-24, 60 NRC 160, 190 (2004) ("*TVA*"); *PFS*, (continued. . .)

With respect to a Board's conclusions of law, a petitioner must show an "error of law or abuse of discretion" by the Board.<sup>26</sup> The Commission will reverse a board's legal conclusions only "if they are a departure from or contrary to established law."<sup>27</sup>

Another factor the Commission considers when deciding whether to grant review is whether the proceeding involves a prejudicial procedural error. See § 2.341(b)(4)(iv). The Commission will grant relief for procedural errors that result in actual prejudice; i.e., if the petitioner demonstrates that the Board's procedural error had a substantial impact on the outcome of the proceeding.<sup>28</sup>

## II. The Board Did Not Err in LBP-08-22 or Interlocutory Decisions and Orders

### A. The Board Properly Clarified Contention 1 and Limited the Scope of the Proceeding in LBP-08-22 and Interlocutory Decisions

PW asserts that the Board, in its Initial Decision as well as in earlier decisions and orders, misinterpreted the 10 C.F.R. Part 54 regulations and improperly limited the scope of the proceeding by narrowing Contention 1 to exclude consideration of all leaks except for those that might be great enough to compromise ability of in-scope pipes to perform their intended functions. See, e.g., Petition at 2, 3, 5. Consequently, PW argues, the Board failed to consider compliance with certain regulations (Part 20, Part 50, Appendices A and B) in making its decision. See, e.g., Petition at 2, 3, 4-5. As discussed more fully below, the Board properly

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CLI-03-8, 58 NRC at 27 (quoting *Kenneth G. Pierce* ((Shorewood, Illinois), CLI-95-6, 41 NRC 381, 382 (1995)).

<sup>26</sup> *USEC, Inc.* (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 439 n.32 (2006).

<sup>27</sup> *TVA*, CLI-04-24, 60 NRC 160,190 (2004) (internal quotations omitted).

<sup>28</sup> *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-788, 20 NRC 1102, 1151 (1984) (citing *Louisiana Power & Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1096 (1983)).

interpreted and applied the regulations in Part 54, as well as applicable case law, in clarifying Contention 1 and limiting the scope of the license renewal proceeding to exclude leaks addressed under the current licensing basis (“CLB”) from license renewal consideration.

As originally admitted, PW’s contention asserted that Entergy’s AMP for buried pipes and tanks was inadequate “because it does not provide for monitoring wells that would detect leakage.”<sup>29</sup> In LBP-07-12, the Board first provided the clarification that PW objects to on appeal.<sup>30</sup> In the Initial Decision, the Board restated this clarification as follows:

. . . what has ultimately been at issue in this proceeding is whether or not the proposed AMPs are adequate, without the addition of monitoring wells, to detect leaks in two particular buried pipe systems, before those leaks become so large that the ability of those pipes to satisfy their particular intended safety function (vis-a-vis design basis events) is challenged.<sup>31</sup>

PW argues that the Board “incorrectly said that the only thing that matters about [buried] pipes and tanks is leaks that are so great as to permit a design base [sic] failure.” Petition at 3. PW asserts that the Board incorrectly claimed that 10 C.F.R. § 54.4(a) “restricts the aspects of the in-scope SSCs that must be considered,” Petition at 3, but fails to specifically cite a Board decision or to provide further support for this assertion. PW also asserts that 10 C.F.R. § 54.21, not 10 C.F.R. § 54.4, “explains what has to be looked at in an aging management review of components once they are determined to be within scope.” Petition at 4.

Contrary to PW’s assertions, the Board’s clarification of Contention 1 in the Initial Decision and prior orders reflects a proper reading of the regulations in Part 54.<sup>32</sup> Section 54.4(a) designates those systems, structures, and components (SSCs) that are within the scope

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<sup>29</sup> LBP-06-23 at 315.

<sup>30</sup> See pages 4-5 *supra*.

<sup>31</sup> LBP-08-22 at 17.

<sup>32</sup> See LBP-07-12 at 128-130; December 19 Order at 1; January 11 Order at 5-6.

of license renewal.<sup>33</sup> Within those in-scope SSCs, section 54.21(a)(1) defines the structures and components (“SCs”) that are subject to an aging management review.<sup>34</sup> For those SCs requiring an aging management review, section 54.4(b) defines the intended functions that must be considered in the aging management review as those “that are the bases for including [the SSCs] within the scope of license renewal as specified in [§ 54.4(a)(1)-(3)].”<sup>35</sup> Thus, sections 54.4 and 54.21, read together, define the scope of the aging management review for license renewal and restrict it to certain SCs and intended functions.

In arguing that all leaks must be considered, not just those “great enough” to compromise intended functions, PW ignores the language of section 54.4(b), which limits the aging management review required in section 54.21 to the *intended functions* of in-scope SSCs.<sup>36</sup> Thus, based on the regulations, Entergy was required to demonstrate, for in-scope SCs requiring an aging management review, that its AMPs were adequate to ensure “that the intended functions [as defined in § 54.4(a)] will be maintained consistent with the CLB for the period of extended operation.”<sup>37</sup> The Board’s clarification of Contention 1 reflects this requirement and was therefore proper.

PW next claims that section 54.29 and the CLB require that “all in-scope components comply with the license and all NRC regulations over the license extension period.” Petition at 4 (emphasis in original). PW asserts that the Board should have required Entergy to demonstrate

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<sup>33</sup> 10 C.F.R. § 54.4(a); Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. 22,461, 22,463 (May 8, 1995).

<sup>34</sup> 10 C.F.R. § 54.21(a)(1); 60 Fed. Reg. at 22,463.

<sup>35</sup> 10 C.F.R. § 54.4(b); 60 Fed. Reg. at 22,467.

<sup>36</sup> The Commission has explained that the aging management review requirements apply *only to the intended functions* of the SSCs (i.e., those functions listed in §54.4(a)(1)-(3)). See 60 Fed. Reg. at 22,467.

<sup>37</sup> 10 C.F.R. § 54.21(a)(3).

compliance with requirements in regulations in 10 C.F.R. Part 20, and in Appendices A and B to 10 C.F.R. Part 50, that address dose limits from radiological effluents, control of effluent releases into the environment, monitoring of radiological releases, and identification and correction of leaks. Petition at 5-6.

PW does not correctly construe the license renewal regulations and the Commission's interpretation of the regulations in case law. The regulations that PW cites are part of Pilgrim Nuclear Power Station's CLB.<sup>38</sup> PW's arguments that "NRC regulations require the Applicant to have in place an effective program for monitoring radiation on-site and off-site," and that the Board "was incorrect to narrow the original order and to exclude unmonitored leakage" challenge the CLB and are therefore outside the scope of a license renewal proceeding.<sup>39</sup> Because the Board's clarification of Contention 1 properly recognized these challenges to the CLB and excluded them from consideration, the Board did not err.

PW also argues that the Board "erroneously dispensed with" the "essential" requirement of "determining whether in-scope buried pipes and tanks will comply with the CLB during any extended period of operation," in accordance with sections 54.21(a)(3) and 54.29. Petition at 4. PW's assertion of error stems from an incorrect reading of the scope of license renewal proceedings and is therefore without merit.

License renewal proceedings are limited to a "review of the plant SCs that will require an aging management review for the period of extended operation and the plant's SSCs that are

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<sup>38</sup> See 10 C.F.R. § 54.3.

<sup>39</sup> 10 C.F.R. § 54.30(b); *Florida Power & Light Co.* (Turkey Point, Units 3 and 4), CLI-01-17, 54 NRC 3, 9-10 (2001). The Commission has specifically held that issues related to effects of radiological releases from operating nuclear plants are "everyday operational issues" that are outside the scope of license renewal. *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-06-4, 63 NRC 32, 37 (2006).

subject to an evaluation of time-limited aging analyses.”<sup>40</sup> The Commission’s “[l]icense renewal reviews are not intended to ‘duplicate the Commission’s ongoing review of operating reactors.’”<sup>41</sup> With the exception of managing the effects of aging, the Commission has stated that, as a general matter, the Commission’s ordinary regulatory process “is adequate to ensure that the [CLB] provides and maintains an acceptable level of safety . . . .” 60 Fed. Reg. at 22,464. Therefore, in a license renewal proceeding, the only issue is whether, *for SCs that fall within the scope of license renewal and are subject to an aging management review*, the applicant’s AMP(s) will be adequate to provide reasonable assurance that any § 54.4(b) intended functions of the structures or components will be maintained in accordance with the CLB during the period of extended operation.<sup>42</sup>

A review of the Initial Decision reveals that the Board did, in fact, make the necessary findings in this license renewal proceeding. In the Initial Decision, the Board, consistent with the regulations, stated that the applicant must

[f]or those SSCs [within the scope], demonstrate that the effects of aging will be adequately managed so that the intended function(s) [i.e., the direct and indirect safety-related functions enumerated in 10 C.F.R. § 54.4] will be managed consistent with the CLB for the period of extended operation.<sup>43</sup>

For the two in-scope buried piping systems at Pilgrim,<sup>44</sup> the Board found that the applicant’s AMPs were adequate, without the addition of monitoring wells, to detect leaks in those systems

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<sup>40</sup> *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-20, 54 NRC 211, 212 (2001) (internal citations omitted).

<sup>41</sup> *Turkey Point*, CLI-01-17, 54 NRC at 7 (citing Nuclear Power Plant License Renewal, Final Rule, 56 Fed. Reg. 64,943, 64,946 (Dec. 13, 1991)).

<sup>42</sup> See 10 C.F.R. §§ 54.21, 54.29.

<sup>43</sup> LBP-08-22 at 13 (changes in original) (internal quotations omitted).

<sup>44</sup> The two in-scope buried piping systems at Pilgrim are the condensate storage system (CSS) piping and the salt service water (SSW) system piping. LBP-08-22 at 19.

before such leaks would compromise the ability of the pipes to perform their intended functions.<sup>45</sup> The Board explained the basis for each of these findings,<sup>46</sup> and PW has not disputed the Board's analysis. Therefore, contrary to PW's assertion, the Board properly determined "whether in-scope buried pipes and tanks will comply with the CLB during any extended period of operation" as part of this proceeding.

B. The Board Did Not Err in its Application of the Reasonable Assurance Standard

PW's second assertion of error is that the Board failed to discuss the standard of reasonable assurance that it used (i.e., "what level or degree of 'assurance' constitutes a 'reasonable' level of assurance). Petition at 7. According to PW, without such a discussion, there is no way to determine whether Entergy has proven by a "clear preponderance" that the reasonable assurance standard has been met. *Id.* PW asserts that "nothing short of an extremely high level of assurance . . . is 'reasonable'" and asks the Commission to establish an appropriate standard and remand the Initial Decision to the Board. Petition at 8.

PW cites no statutory or regulatory requirement that a Board must explicitly define a "reasonable assurance standard" in its decision. Although reasonable assurance appears in many areas of the Commission case law and regulations, it is not specifically defined in either the Atomic Energy Act or the Commission's regulations. According to federal and NRC case law, the determination of reasonable assurance requires the application of technical judgment on a case-by-case basis,<sup>47</sup> and reasonable assurance is not susceptible to the application of a mechanical verbal formula, a set of objective standards, or a specific confidence interval or

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<sup>45</sup> LBP-08-22 at 23, 25.

<sup>46</sup> See *id.* at 19-23; 24-25.

<sup>47</sup> See *Union of Concerned Scientists v. NRC*, 880 F.2d 552, 558 (D.C. Cir. 1989). PW agrees that "what constitutes 'reasonable assurance'" requires a "case by case determination." Petition at 8.

other absolute standard.<sup>48</sup> Thus, the Board's failure to define a standard for reasonable assurance is not "a departure from or contrary to established law."<sup>49</sup>

PW's assertion that "an extremely high level of assurance" is required is also unsupported by case law. As Judge Young noted in her concurrence, the cases cited by PW in its Petition are irrelevant to the determination of reasonable assurance and do not support PW's position.<sup>50</sup> Therefore, PW has not shown that the Board erred in failing to adopt a "extremely" high standard for determining reasonable assurance.

Finally, it is evident from the Board's findings, and its ultimate conclusion in Entergy's favor, that it found reasonable assurance by a "clear preponderance" of the evidence. First, with respect to the CSS piping, the Board found that statements by Entergy, *uncontroverted by PW*, demonstrated that the established monitoring program would detect leaks before they became great enough to compromise intended safety functions.<sup>51</sup> Likewise, with respect to the SSW piping, the Board found that *none* of the prefiled testimony, or testimony at the hearing, provided any evidence of a "credible scenario" by which a leak could lead to a restriction in

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<sup>48</sup> Cf. *Union of Concerned Scientists*, 880 F.2d at 558; see also *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-07-17, 66 NRC 327, 340 (2007); *Commonwealth Edison Co.* (Zion Station, Units 1 and 2), ALAB-616, 12 NRC 419, 421 (1980) (applicant is "not obliged to meet an absolute standard but to provide 'reasonable assurance'"). The Commission has stated that reasonable assurance is a flexible standard that does not require focus on extreme values or precise quantification of parameters to a high degree of confidence. See *Disposal of High-Level Radioactive Wastes in a Proposed Geologic Repository at Yucca Mountain, Nevada*, 66 Fed. Reg. 55,732, 55,739-40 (Nov. 2, 2001).

<sup>49</sup> *TVA*, CLI-04-24, 60 NRC 160,190 (2004) (internal quotations omitted).

<sup>50</sup> Concurring Opinion at 55 n. 272.

<sup>51</sup> LBP-08-22 at 22-23. The monitoring program consists of checking the water level indicator in the condensate storage tanks every four hours, and full-flow testing of the high-pressure coolant injection (HPCI) and reactor core isolation cooling (RCIC) pumps on a quarterly basis. *Id.*

outlet flow sufficient to impair the intended function of the SSW piping.<sup>52</sup> PW has not asserted error in these factual findings, which, as explained above, are based on uncontroverted evidence. Based on these findings, the Board concluded that Entergy's AMPs were adequate<sup>53</sup> and resolved the contention in Entergy's favor.<sup>54</sup> It is apparent, therefore, that the Board found that reasonable assurance exists.

C. The Board Did Not Err in Refusing to Strike Testimony or Allow PW to Submit New Evidence After the Hearing

PW argues that the Board improperly refused to accept and consider new evidence proffered by PW on May 15, 2008, after the evidentiary hearing but before the record was officially closed on June 4, 2008. According to PW, this new evidence demonstrated "that critical testimony presented by Entergy and NRC Staff [at the evidentiary hearing] regarding cured in place linings, coatings and cathodic protection/stray current interference was inaccurate, incomplete and misleading." PW asks the Commission to remand and instruct the Board to consider this evidence.

The Commission should deny PW's request. In its June 4 Order, the Board provided a detailed explanation justifying its denial of PW's motions.<sup>55</sup> On appeal, PW provides no supporting discussion and no legal support for its assertion that the Board's refusal to accept the new evidence was improper.

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<sup>52</sup> *Id.* at 25. The Board stated further that "the lack of such a credible scenario is made even clearer by noting the [uncontroverted] fact that the [SSW return piping] consists of two parallel piping systems each capable of carrying the required flow." *Id.* (citing Tr. at 616-17).

<sup>53</sup> *See id.* at 23, 25.

<sup>54</sup> *Id.* at 26.

<sup>55</sup> On May 15, 2007, PW asked the Board to strike the alleged inaccurate and misleading testimony and attached exhibits in support of its request. June 4 Order at 1-2. On May 27, 2007, PW asked the Board to add to the record the exhibits attached to the first motion. *Id.*

As discussed in the June 4 Order, because the Board considered the record to have been “effectively closed” as of May 12, 2008, the Board considered PW’s motion as a motion to reopen the record under 10 CFR § 2.326.<sup>56</sup> The Board found that PW had not satisfied the criteria for reopening the record.<sup>57</sup> PW has provided no legal arguments to show that the Board’s decision to treat this motion as a motion to reopen, and its ultimate decision to deny the motion, were “departure[s] from or contrary to established law.” Therefore, PW has failed to show that the Board committed legal error.

PW has also failed to show that the Board committed prejudicial procedural error. The Board found that the proposed new evidence would not, as required under § 2.326(a)(3), lead to a materially different result with regard to the Board’s ultimate decision on Contention 1.<sup>58</sup> Furthermore, the Board did not rely on evidence regarding cured in place linings, coatings and cathodic protection in rendering its Initial Decision.<sup>59</sup> Thus, because PW has not demonstrated that this evidence would have led to a materially different result in the proceeding, PW has not demonstrated the actual prejudice required to trigger Commission review.<sup>60</sup>

### III. The Board Did Not Err in Granting Summary Disposition for Contention 3

PW’s allegation that the Board erred in granting Entergy’s Contention 3 SD Motion is without merit. In deciding to admit Contention 3, the Board found that PW “supported its call for further analysis of evacuation times, economic consequences, and meteorological patterns by raising relevant and significant questions about the input data . . . used in the Pilgrim SAMA

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<sup>56</sup> June 4 Order at 3-4.

<sup>57</sup> *Id.* at 8-9.

<sup>58</sup> June 4 Order at 7; 9-10.

<sup>59</sup> See LBP-08-22 at 19-25; *see also* Section II.B *supra* at 13-14.

<sup>60</sup> *Shoreham*, ALAB-788, 20 NRC at 1151 (citing *Waterford*, ALAB-732, 17 NRC at 1096).

analysis”.<sup>61</sup> In its Contention 3 SD Motion, Entergy explained that no material facts were at issue, and thus, Entergy was entitled to a decision as a matter of law. Entergy based its motion on three declarations and a report prepared by Washington Safety Management Solutions (WSMS).<sup>62</sup> Entergy explained that it “performed a series of sensitivity studies to evaluate the effects of changes in the input parameters challenged by PW on the results of the SAMA analysis.”<sup>63</sup>

The Staff filed its response<sup>64</sup> arguing that because the information that PW sought to have considered in Applicant’s SAMA analysis had now been considered, as demonstrated by the additional information supplied by Entergy, that part of the contention was moot and agreeable.<sup>65</sup> The Staff provided affidavits that fully agreed with 45 of the 59 stated facts in Applicant’s motion. The Staff noted minor disagreements with the remaining 14 facts, but none of the disagreements would change the results of the SAMA analysis.<sup>66</sup> After consideration of the motion, briefs, and affidavits presented by all parties, the Board granted Applicant’s motion.<sup>67</sup> In a dissenting opinion that would have denied the Applicant’s motion, Judge Young argued that there was a genuine dispute on a material fact, specifically concerning “meteorological patterns, and how the meteorological analysis might affect analysis of the

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<sup>61</sup> *Id.* at 338.

<sup>62</sup> See Contention 3 SD Motion at 1-2.

<sup>63</sup> See Contention 3 SD Motion at 10.

<sup>64</sup> NRC Staff Response to Entergy’s Motion for Summary Disposition of PW Contention 3 (June 29, 2007) (“Staff’s Answer”).

<sup>65</sup> See Staff’s Answer at 6.

<sup>66</sup> See Affidavit of Joseph A. Jones and Dr. Nathan Bixler Concerning Applicant’s Motion for Summary Disposition of Pilgrim Watch Contention 3 (June 25, 2007) at ¶¶ 6, 20 (“Staff Affidavit”). Joseph Jones and Dr. Nathan Bixler are Staff contractors.

<sup>67</sup> LBP-07-13 at 154.

evacuation and cost data.”<sup>68</sup> In the instant proceeding, PW adopts the dissenting opinion, in large part, asserting several errors of law and procedure committed by the Board. The Staff briefly addresses each alleged error of law in the analysis below.

A. The Board Properly Considered Issues Raised By Contention 3, As Admitted.

PW claims that the “majority improperly limited the admitted contention and excluded admitted areas of inquiry”. Petition at 12. In support of its argument, PW relies almost entirely on Administrative Judge Young’s dissent, which suggests that the “adequacy of the MACCS2 code *as specifically applied with regard to the Pilgrim plant’s SAMA analysis*”<sup>69</sup> was within the scope of Contention 3 as admitted. This argument is without merit.

The dissenting opinion is at odds with the Board’s unanimous decision in LBP-06-23 to limit Contention 3 to very specific areas of concern that relate to input data. PW’s Reply to Entergy’s Answer to the PW Petition to Intervene reflects this point of view, stating that “the bulk of the Contention highlights input data that were incorrect, incomplete or inadequate.”<sup>70</sup> The Board relied on PW’s statement, explaining that

as [PW] points out in its Reply to Entergy, the focus of the contention, and that part that we admit, is on what input data should be utilized in the SAMA analysis with regard to evacuation times, economic realities, and meteorological patterns, and whether the input data used by the Applicant accurately reflect the respective conditions at issue.<sup>71</sup>

The portions of the contention that were ultimately eliminated by the Board related to PW’s challenge of the use of probabilistic modeling in Entergy’s SAMA analysis. As the Board

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<sup>68</sup> See LBP-07-13 at 162-63.

<sup>69</sup> See LBP-07-13 at 162 (emphasis in original).

<sup>70</sup> See Reply to Entergy Answer to Request for Hearing and Petition to Intervene by Pilgrim Watch at 16 (July 3, 2006) (“PW RTE”). PW also stated that Contention 3 “focuses mainly on input parameters used in the accident modeling software.” PW RTE at 14.

<sup>71</sup> LBP-06-23 at 340.

observed in LBP-06-23, “the use of probabilistic risk assessment and modeling is obviously accepted and standard practice in SAMA analyses.”<sup>72</sup> The Board’s decision in LBP-06-23, on its face, demonstrates that challenges to the use of MACCS2 code were excluded from the contention, as admitted. Therefore, PW’s allegation of legal error should be rejected.

Similarly, PW’s claim that “the majority improperly eliminated the health cost effects of radiation” is without merit. Besides a general reference to the dissenting opinion, which primarily concerns the adjudication of meteorological issues, PW fails to state a meaningful challenge to the Board’s decision to dismiss Contention 3. Thus, the Commission should deny PW’s petition.

B. The Board Properly Applied the Summary Disposition Rules to the Contention 3 SD Motion.

PW relies on the dissenting opinion to support its claim that the Board improperly applied the rules of summary disposition. When a party who moves for summary disposition satisfies its initial burden and support its motion with an affidavit, the party opposing the motion “must proffer countering evidential material or an affidavit explaining why it is impractical to do so.”<sup>73</sup> In the instant case, Entergy provided a series of bounding analyses which PW failed to contradict with specific facts. The Board recounted each affidavit and document offered by PW to establish its claim that a genuine dispute of a material fact did exist with regard to Contention 3. After careful examination of each document, the Board concluded that the evidence presented did not controvert Entergy’s material factual assertions. The Board neither required PW to prove its case nor did the Board improperly weigh evidence. The dissent relied on federal appellate cases that discuss situations in which it is appropriate for a fact-finder to draw

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<sup>72</sup> LBP-06-23 at 340.

<sup>73</sup> *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 & 2), LBP-83-32A, 17 NRC 1170, 1174 n.4 (1983).

factual inferences to support their view.<sup>74</sup> In dismissing Contention 3, the Board did not draw factual inferences; rather, the Board examined the submissions from the Applicant and PW, according to the requirements of Contention 3 as admitted. Because PW failed to meet their burden, that a material fact remained in dispute, the Board properly granted the Applicant's motion.<sup>75</sup> Under 10 C.F.R. § 2.710(d)(2), PW's failure to meet its burden warranted approval of the motion as a matter of law.

1. No Dispute on Material Facts Related to the Use of MACCS2 Code Exists.

PW argues that it established a material factual dispute as to “whether applicant's inputs – for example, a standard straight-line Gaussian plume model to estimate the atmospheric dispersion of a point release of radionuclides – are the inputs that should be specifically applied to Pilgrim's site.” Petition at 15. Further, PW argues that “a variable trajectory plume model --- not a straight-line Gaussian plume – is appropriate for Pilgrim's coastal location and would bring more SAMA's into play.” Petition at 15. These arguments are without merit, and the Board properly rejected them for several reasons.

First, the Board found that the affidavits of Dr. S. Jan Beyea, David Chanin, Richard Rothstein, and Bruce Egan offered no support to counter Applicant's facts addressing the issues related to input data presented in Contention 3.<sup>76</sup> The Board found that Dr. Beyea's report, for example, which alleged errors in “quantifying dollar amount damages related to cancer caused by severe accident”, are not within the scope of the admitted contention.

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<sup>74</sup>*United Paperworkers International Union, Local 14, AFL-CIO-CLC, et al., v. International Paper Company*, 64 F. 3d 28, 33-4 (1<sup>st</sup> Cir. 1995) (factual inferences of district court not legal error because the Union could not show facts that parties intended recall agreement to expire); *Reich v. John Alden Life Insurance Company*, 126 F. 3d 1, 6 (1<sup>st</sup> Cir. 1997) (the district court did not err in conducting some differential fact-finding in granting summary judgment where parties submitted the case on cross motion with stipulated facts, and only a question of law remained).

<sup>75</sup> LBP-07-13 at 154.

<sup>76</sup> LBP-07-13 at 147-154.

The Board rejected the other affidavits because they contained explicit statements that attacked the use of the MACCS2 code, offered no additional information regarding the errors alleged in the contention, or identified an error in the SAMA analysis. The MACCS2 code as used in the SAMA analyses, in this instance, was acceptable to the Staff.<sup>77</sup> PW was unable to offer any reasonable alternatives to MACCS2 code in the SAMA analyses, except to advocate, generally, for the use of deterministic modeling. Therefore, PW's argument lacks merit, and should be rejected.

2. No Dispute on Material Facts related to the Meteorological Methodologies Exists.

PW challenges the Board's conclusions that "...actual variations in wind speed and direction are not predictable, nor are actual time-dependent releases from such a hypothetical accident... thus; deterministic modeling . . . is simply not possible." Petition at 17. This allegation of legal error is without merit. The Board rejected arguments attacking the probabilistic modeling as outside the scope of the contention, as admitted, and the license renewal proceedings.<sup>78</sup> The Board cites Commission regulations in LBP-07-13 that demonstrate widely-accepted use of probabilistic modeling for postulated accidents at nuclear power plants. Therefore, PW's allegation should be rejected.

3. No Dispute on Material Facts related to the Health Costs and Emergency Evacuation Exists.

PW makes three arguments to support its assertion that a dispute on a material fact existed concerning input data for the SAMA analysis. First, PW asserts that the majority ignored input data that would "indicate a far larger affected area," potentially including densely populated areas, and would result in "greater consequences/costs and a large increase in

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<sup>77</sup> See LBP-07-13 at 142; Staff Affidavit at ¶18.

<sup>78</sup> LBP-07-13 at 142.

evacuation times.” Petition at 17. Entergy’s analyses addressed PW’s argument and concluded that it was unrealistic.<sup>79</sup> The sensitivity analyses demonstrated that most population doses and off-site economic costs occur in the 20-50 mile region and after the initial phase. Emergency phase actions (evacuation) had little influence on doses at these distances and in the long term. Thus, evacuation times and patterns showed that implementation of additional SAMAs would not be cost-effective. PW offered no information to contradict these conclusions. The declarations failed to address the specific inputs at issue or to analyze the impact analyses in Entergy’s Motion.<sup>80</sup>

Second, PW’s claim that the Board failed to consider economic costs of “[i]llness due to radiation exposure in a severe accident” is outside the scope of the contention. Petition at 17. The Board rejected a similar argument in LBP-07-13, finding that such costs did not pertain to the admitted contention.<sup>81</sup> In this case, the admitted arguments raised by PW pertain to Applicant’s failure to properly account for loss of economic activity or for loss of economic infrastructure and tourism. Therefore, the argument is without merit.

Finally, PW’s claim that the “majority accepted Applicant’s unrealistically low evacuation time estimates” lacks support. Petition at 17. All of the points raised were addressed in Entergy’s sensitivity analyses and considered by the Board. PW presented no information to contradict the conclusions.<sup>82</sup> Thus, PW’s argument lacks merit, and should be rejected.

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<sup>79</sup> See Contention 3 SD Motion at 19-20.

<sup>80</sup> See LBP-07-13 at 147-154.

<sup>81</sup> LBP-07-13 at 145-46.

<sup>82</sup> See Contention 3 SD Motion at 21-24.

4. No Dispute on Material Facts related to the Economic Consequences Exists.

Contrary to PW's claim, the Board did not ignore PW's arguments "showing that the inputs and MACCS2 used by the applicant is not the proper diagnostic tool to assess economic consequences." Petition at 18. As pointed out earlier in this response, the Board rejected several of PW's affidavits because they focused primarily on the use of probabilistic modeling, which is not within the scope of the admitted contention or proceeding. The Washington Safety Management Solutions report included as Exhibit 2 of the Declaration of Kevin O' Kula discusses sensitivity cases using increased non-farm wealth values that did not impact the results of the SAMA analyses, which PW failed to refute.<sup>83</sup>

Further, the Board found that the Declaration of Richard Finnegan offered by PW which merely certified and attached a table of assessed property values, offered no facts to refute Entergy's Motion or identify a specific error in the SAMA analysis.<sup>84</sup> Because PW fails to raise a valid error of law committed by the Board, this argument should be rejected.

IV. The Board Did Not Err in Dismissing Contention 4 (SAMA analysis of Spent Fuel Pool)

PW also seeks review of the Board's ruling in LBP-06-23 denying admission of Contention 4 and the MassAG's contention regarding spent fuel storage. Petition at 19. PW asserts that the Board erred in holding that *Turkey Point* excludes spent fuel pools from consideration in SAMA analyses, and in failing to consider "new and significant information regarding the risk and consequences of spent fuel pool fires." Petition at 19-20. Specifically, PW argues that the definition of "severe accidents" includes spent fuel pool accidents and, thus, spent fuel pools are within the scope of SAMA analyses for purposes of license renewal. *Id.* at

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<sup>83</sup> See Contention 3 SD Motion at 25-26; Exhibit 2 of Declaration of Kevin R. O' Kula – WSMS Report "Radiological Dispersion and Consequence Analysis Supporting Pilgrim Nuclear Power Station Severe Accident Mitigation Alternative Analysis" at 33-34 (ADAMS Accession No. ML071440354).

<sup>84</sup> See LBP-07-13 at 153.

20-21. PW also argues that neither the facts nor the holding of *Turkey Point* is applicable to this case, and that the Commission, in deciding that case, read the wrong regulation when it held that SAMAs apply only to reactor accidents not spent fuel pool accidents. *Id.* Finally, PW argues that the Board should have considered PW's new and significant information because neither 10 C.F.R. § 51.53 nor 10 C.F.R. § 2.309 precludes Category 1 impacts from the scope of issues that can be addressed in NEPA contentions. *Id.* at 23-24.

The Staff submits that these arguments are based upon misinterpretation of the Commission's regulations and cases. First, the Commission made it clear in *Turkey Point* that "Part 51's reference to [SAMAs] applied to nuclear reactor accidents, not spent fuel storage accidents."<sup>85</sup> Thus, SAMAs are not required for spent fuel storage. In LBP-06-23, the Board correctly followed the Commission's holding in *Turkey Point*.<sup>86</sup> In addition, as noted in *Turkey Point*, section 6 of the GEIS, which applies to spent fuel storage issues, concludes that the "regulatory requirements already in place provide adequate mitigation."<sup>87</sup>

Second, PW's argument that the Board should have considered the "new and significant" information regarding increased risk and consequences of spent fuel fires is without merit. In *Turkey Point*, the Commission held that absent a waiver pursuant to 10 C.F.R. § 2.758 (now § 2.335), Category 1 issues are not litigable in license renewal proceedings.<sup>88</sup> In LBP-06-23, the Board provided an extensive discussion of the license renewal regulations and *Turkey*

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<sup>85</sup> *Turkey Point*, CLI-01-17, 54 NRC at 21. Further, the Commission has stated that "severe nuclear accidents [are] those in which substantial damage is done to the *reactor core*." *Id.* at 22, citing Policy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants, 50 Fed. Reg. 32,138 (Aug. 8, 1985) (emphasis added).

<sup>86</sup> LBP-06-23 at 291-93.

<sup>87</sup> *Turkey Point*, CLI-01-17, 54 NRC at 22, citing NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," Final Report, Vol. 1 (May 1996) ("GEIS").

<sup>88</sup> *Turkey Point*, CLI-01-17, 54 NRC at 6, 22-23.

*Point* as they relate to this issue.<sup>89</sup> The Board concluded that since PW and the MassAG did not request and receive a waiver of the generic rule, they cannot raise a contention regarding any failure of the Applicant's environmental report to consider new and significant information pertaining to the Category 1 issue of spent fuel storage.<sup>90</sup>

Finally, the admissibility of the contentions relating to consideration of Category 1 issues has already been appealed and decided by the Commission in this case. The MassAG filed a petition for review of the Board's denial of admission of its contention relating to spent fuel pool accidents and the alleged "new and significant information" regarding the environmental impacts of fires in spent fuel pools.<sup>91</sup> The Commission affirmed the Board's decision denying admission of the MassAG's contention, holding that "Category 1 findings based on the GEIS analysis [are] not subject to attack in an individual licensing proceeding," and stating that, unless a waiver is requested and granted, "any contention on a 'Category 1' issue amounts to a challenge to our regulations that bars challenges to generic environmental findings."<sup>92</sup> The Commission also reaffirmed its holding in *Turkey Point* that no discussion of mitigation alternatives is required in a license renewal application for a Category 1 issue.<sup>93</sup> Thus the Commission has already affirmed the Board's decision to deny admission of one contention relating to SAMAs and spent fuel storage on two of the grounds raised by PW. Therefore, the challenge to the Board's denial of admission of the Contention should be denied.

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<sup>89</sup> LBP-06-23 at 294-300.

<sup>90</sup> *Id.* at 299.

<sup>91</sup> Massachusetts Attorney General's Brief on Appeal of LBP-06-20 (Oct. 3, 2006).

<sup>92</sup> *Pilgrim*, CLI-07-03, 65 NRC at 19-20.

<sup>93</sup> *Id.* at 21.

CONCLUSION

For the reasons well articulated by the Board's rulings and decisions and, as set forth above, the Commission should deny Pilgrim Watch's Petition for Review of LBP-08-22, LBP-07-13, LBP-06-23, and the Board's other interlocutory decisions in this proceeding.

Respectfully submitted,

/RA/

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/RA/

Andrea' Z. Jones  
Counsel for NRC Staff

Dated at Rockville, Maryland  
This 24th day of November, 2008

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of )  
)  
ENTERGY NUCLEAR GENERATION )  
COMPANY AND ENTERGY NUCLEAR ) Docket No. 50-293-LR  
OPERATIONS, INC. )  
)  
(Pilgrim Nuclear Generating Station) )

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S ANSWER IN OPPOSITION TO PILGRIM WATCH'S PETITION FOR REVIEW OF LBP-08-22, LBP-07-13, LBP-06-23 AND INTERLOCUTORY DECISIONS" in the above-captioned proceeding have been served on the following by electronic mail and by deposit in the U.S. Nuclear Regulatory Commission's internal mail system, or, as indicated by an asterisk (\*), by electronic mail and by deposit in the U.S. Mail system this 24<sup>th</sup> day of November, 2008.

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