UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

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

August 26, 2011

PILGRIM WATCH'S PETITION FOR REVIEW OF MEMORANDUM AND ORDER (DENYING PILGRIM WATCH'S REQUESTS FOR HEARING ON CERTAIN NEW CONTENTIONS) ASLBP NO. 06-848-02-LR, AUGUST 11, 2011

Respectfully submitted,

(Electronically filed)

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PILGRIM WATCH'S PETITION FOR REVIEW OF MEMORANDUM AND ORDER (DENYING PILGRIM WATCH'S REQUESTS FOR HEARING ON CERTAIN NEW CONTENTIONS) ASLBP NO. 06-848-02-LR, AUGUST 11, 2011

I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.341, Pilgrim Watch (hereinafter "PW"), by and through its pro se representative, Mary Lampert hereby petitions the Nuclear Regulatory Commission ("NRC" or "Commission") to review, reverse, and remand the Memorandum and Order (Denying Pilgrim Watch's Requests for Hearing on Certain New Contentions) ASLBP No. 06-848-02-LR, August 11, 2011 (the "Decision") of the Atomic Safety and Licensing Board (the "Board").

II. PETITION FOR REVIEW OF NEW CABLE CONTENTIONS

A. The Decision Of Which Review Is Sought

In the Decision, a majority of the Board[1] denied: Pilgrim Watch Request for Hearing on Pilgrim Watch Request for Hearing on a New Contention: Inadequacy of Entergy's Aging Management of Non-Environmentally Qualified (EQ) Inaccessible Cables (Splices) at Pilgrim Station (Dec. 13, 2010) at 1 [hereinafter Cables Contention 1]; and Pilgrim Watch Request for Hearing on a New Contention: Inadequacy of Entergy's Aging Management of Non-Environmentally Qualified (EQ) Inaccessible Cables (Splices) at Pilgrim Station (Jan. 20, 2011) [hereinafter Cables Contention 2]. The matters of fact or law raised in the petition for review were previously raised in filings before the Board.[2]

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[1] In a separate statement, *Administrative Judge Ann Marshall Young, Concuring in Part and Dissenting in Part* "agree[d] that Pilgrim Watch's new contentions are required to meet the standards of 10 C.F.R. § 2.326, and that its November 2010 new contention does not meet these requirements. For the reasons stated herein, however, although Intervenor's January 2011 new contention presents a close case, [Judge Young found] it meets the rule's standards."

[2] 2011/01/20-Pilgrim Watch Request for Hearing on a New Contention: Inadequacy of Entergy's Aging Management of Non-Environmentally Qualified (EQ) Inaccessible Cables (Splices) at Pilgrim Station; 2011/01/20-Pilgrim Watch Request for Hearing on a New Contention: Inadequacy of Entergy's Aging Management of Non-

B. Why The Decision Is Erroneous

As discussed in more detail below, the Decision is erroneous for a number of different, but often interrelated, reasons:

- Pilgrim Watch's new contentions are not required to satisfy the standards for reopening the record.
- However, PW's January 2011 Submerged Non-EQ Cables does, in fact, meets the reopening standard, as argued by Judge Young in the separate statement.
- The majority Decision failed to consider new, significant and material information from Fukushima and information regarding whether there are "proven" tests to determine degradation in cable insulation. NEPA requires the Board to consider new information, most importantly information and evidence contrary to the Decision.

C. The Commission Should Review The Decision

Fundamental principles and fairness require the Commission to review the Decision. PW respectfully suggests that the Commission address only PW's January 2011 Cable 2 Contention and not the December 2010 Cable Contention because "the allegations in the December 2010 Cables Contention have in effect been superceded by those in Pilgrim Watch's January 2011 contention, which challenges Entergy's aging management plan for the cables as amended in January 2011…the latter has effectively replaced the former." (Judge Young, Statement at 6)

Environmentally Qualified (EQ) Inaccessible Cables (Splices) at Pilgrim Station; 2011/01/19-Affidavit of Paul M. Blanch; 2011/03/12-Pilgrim Watch Memorandum Regarding Fukushima; 2011/03/28-Pilgrim Watch Post-Hearing Memorandum; 2011/04/12-Pilgrim Watch Memorandum-Entergy's Incorrect and Misleading Information Regarding Proven Tests to Detect Cable Insulation Degradation-Video Supplement; 2011/04/11-Pilgrim Watch Memorandum-Entergy's Incorrect and Misleading Information Regarding Proven Tests to Detect Cable Insulation Degradation; 2011/04/24-Pilgrim Watch Response to Entergy's April 22, 2011 Filing Regarding Proven Tests to Detect Cable Insulation Degradation; 2011/06/23- Pilgrim Watch Memorandum re Submerged Cables

Argument- Why The Decision Is Erroneous

1. Pilgrim Watch's New Contention Is Not Required to Satisfy the Standards for Reopening the Record.

The Board holding that PW is required to file a Motion to Reopen was wrong. It is neither consistent with nor required by 10 C.F.R. 2.236, and it is not supported by the decisions upon which the majority relied.

The pertinent portions of 10 CFR 2.326 are set forth below with underlining added. Sec. 2.236 applies only when a party seeks to reopen a closed record.

> **§ 2.326 Motions to reopen.**
>
> (a) A motion to reopen a closed record to consider additional evidence will not be granted unless the following criteria are satisfied:
>
> (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.
>
> (d) A motion to reopen which relates to a contention not previously in controversy among the parties must also satisfy the requirements for nontimely contentions in § 2.309(c).

Three important facts are relevant here.

1. At the time PW filed its new contention, the only evidentiary record that had been closed was that directed to Contention 1 (Buried Pipes and Tanks); the remand hearing on Contention 3 had not even been heard, and the Board did not decide it until July 19, 2011.

2. PW's new contention did not seek to reopen, or to reach some "materially different result," with respect to either Contention 1 or Contention 3.

3. The Board majority admits that PW's new contention "raise[] new matters not heretofore raised in this proceeding" (Decision, p. 14, emphasis added).

a. Even Today, the Record in this ASLB Proceeding has Not Been Closed

The ASLB has jurisdiction over a proceeding from the time a presiding officer is designated until the time "when the period within which the Commission may direct that the record be certified to it for final decision expires, when the Commission renders a final decision, or when the presiding officer withdraws from the case..., which ever is earliest." 10 C.F.R. §2.318. None of these eventualities has occurred.

This licensing proceeding before the Board has not been closed, even today.[3] It clearly was not closed by the Board's 2008 decision on Contention 1. It also was not closed during the pendency of the remand ("the proceeding will remain open during the pendency of the remand. *Vermont Yankee*, CLI 10-17, p 1, fn 37),[4] and it was not closed by the Board's most recent Partial Initial Decision on contention 3 ("A partial initial decision is a decision rendered after an evidentiary hearing on one or more contentions, but that does not dispose of the entire matter." NRC Practice Digest, Appeals 48, Pilgrim Nuclear Power Station, CLI-08-2, emphasis added. As Judge Young correctly said (LBP-11-18, Separate Statement, p. 3): "The Board Majority's Initial Decision does not terminate this proceeding or constitute a final licensing decision."

Section 2.236 is directed to motions to reopen decisions in which the record has been closed and a "result" has been reached. Properly understood, 2.236(d) may require a motion to reopen if the entire record is closed because the entire proceeding before the Board has been concluded (that is not the case here), or if (as in *Vermont Yankee,* discussed below) the new contention restates a contention that the Board has already decided (that also is not the case here). The rule does not apply, and indeed makes no sense, when the new request "raises new

[3] "The Board will address Pilgrim Watch's fourth and fifth contentions, which both concern information derived from the events at the Fukushima reactors, in a separate ruling (and) In addition, that separate ruling will address filings by the Commonwealth of Massachusetts that also concern information from the Fukushima events" (Decision at 2-3)

[4] In the Decision, the Board spends considerable apples and oranges effort trying to equate the scope of the remand hearing with whether the record in this proceeding has been closed. PW does not say that that the Commission Order (although incorrectly), narrowed the scope of the remand hearing on Contention 3; but that has nothing to do with PW's new contentions that do not seek to reopen any closed record.

matters not heretofore raised in this proceeding" (Decision, p. 14, emphasis added), and does not seek to "reopen" any portion of any record or to change any "result."

The Board's reliance on subsection (d) of Rule 2.326 is misplaced. PW agrees with Judge Young that " the rule is not intended to be limited to motions seeking only to submit additional evidence relating to a previously-admitted contention" (Separate Statement, p. 2); the test is whether the new contention seeks to reopen a closed record. The majority admits that PW's new contentions raise new issues (Decision, 14) that do not "relat[e] to a previously admitted contention."

The Board apparently reads the rule to say that once any part of the record has been closed, any motion to add any new contention requires a motion to reopen, and that this is so even if the new contention has nothing to do with the closed portion of the record, and in fact presents new questions that were not, and could not have been, earlier litigated.

That is not what 10.C.F.R. §2.236 says, and the decisions on which the Board majority rely do not support the Board's conclusion.

b. The Decisions on which the Board Relies do Not Support its Conclusion.

Not one of the cases relied on by the Board (See Decision, pp 15-17) supports its conclusion. Properly understood, they support PW's position that no motion to reopen was needed here.

In every case cited by the Board, the new contention was directed to a matter as to which the record was closed. In at least two, whether a motion to reopen was required was not an issue; the petitioner had filed a motion to reopen.

(1) *Oyster Creek*: Unlike here, The Board had closed the record and issued its initial decision (CLI-08-12, 2), and Citizen's had filed a "motion to reopen the record." (CLI-08-28, pp 2, 3)

(2) *Private Fuel Storage,* Unlike here, Utah sought to reopen a closed record. (CLI-05-12, pp 1, 6, 7).

(3) *Vermont Yankee* - Unlike here, the "new contention" was essentially the same as other contentions previously decided and as to which the record was closed. "We agree with the Board that NEC has simply rehashed old arguments in Contention 2C". (CLI-10-17, 67).

(4) *Carolina Power & Light Co.,* ALAB-526 (1979). Unlike here, the entire record before the board had been closed, the board had authorized issuance of permits, and jurisdiction over the entire proceeding had moved to the Commission.

(5) *Long Island Lighting,* LBP-83-30 (1983), also decided long before the present rules were adopted. Unlike here, the petitioner sought to "supplement the record on a contention on which the evidentiary hearing has been completed" (pg 4). All issues as to which the Board had jurisdiction had been litigated. (pp 4-5).

The 1986 Federal Register extract (generally contemperaneous with *Carolina Power* and *Long Island Lighting)* that the Board quotes (Id., p 15, fn 75, underlining added: "A motion to reopen must be filed whenever a proponent seeks to add new information to a closed record, whether the information concerns a new contention or one which has already has been heard") supports Pilgrim Watch's position. PW's new contentions do not seek to reopen or "to add new information to a closed record." The Commission should find that no motion to reopen is required here, reverse the Board majority Decision, and remand with instructions to determine whether PW's new contentions meet the requirements of 10 C.F.R 2.309.

2. Pilgrim Watch's January 20, 2011 Motion (Cable 2) Satisfied the Standards for Reopening the Record

PW did not seek to reopen the record, for the aforementioned reasons. The Majority further argues that PW did not "attempt to argue in the alternative." (Decision at 12) Significantly, PW clearly said in the January 2011 new contention that it "is not a motion to reopen, and even if it were Pilgrim Watch's request meets the standards of reopening- it is timely and addresses a significant safety issue[5]." (Emphasis added) The Majority is splitting hairs and elevevating "form over substance." The difference beween "in the alternative" and "even if" is for all practical purposes nearly impossible to discern.

Judge Young agreed that PW did "argue in the alternative" and said that PW's filing met all the requirements of reopening. The Statement said:

> Although Pilgrim Watch has argued that this contention "is timely and addresses a significant safety issue," it did not in the contention seek to reopen the record, and does not explicitly address the reopening standards of 10 C.F.R. § 2.326. If, however, the contention *does in fact* meet all the substantive criteria of 10 C.F.R. § 2.326, I would find denying it solely on the basis that Intervenor did not file a formal motion to reopen to be elevating form over substance. In my view, looking instead at the *reality* of what is actually shown in the filings is the appropriate course to take, particularly given Pilgrim Watch's *pro se* status[6]. To do this does not violate any regulatory provisions or reasonable standards of fair play, nor does it constitute supplying for the intervenor any required elements, as suggested by the baord majority. It involves looking to whether Intervenor itself has supplied the necessary elements, even if not designating them as such." (Statement at 7)

The real question for the Commission is whether Cables Contention 2 and its support, as filed, does in fact meet the requirements of 10 C.F.R. § 2.326. It does.

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[5] Pilgrim Watch Reply to Entergy's and the NRC Staff's Oppositions to Pilgrim Watch's request for Hearing on a New Contention, Feb 24, 2011, at 2

[6] In NRC proceedings, *pro se* litigants are generally not held to the same high standards of pleading and practice as parties with counsel. *See*, *e.g.*, *Vermont Yankee* I, CLI-10-17, 72 NRC at __ (slip op. at 56 n.246); *U.S. Enrichment Corp*. (Paducah, Kentucky Gaseous Diffusion Plant), CLI-01-23, 54 NRC 267, 272 (2001); *Consolidated Edison Co. of N.Y.* (Indian Point, Unit 2) *and Power Authority of N.Y.* (Indian Point, Unit No. 3), LBP-83-5, 17 NRC 134, 136 (1983).

Timeliness Under 10 C.F.R. §§ 2.326(a)(1), (d), and 2.309(c)[7]

Enhancements: PW's January 20 contention challenged the amendments (enhancements) to the Aging Management Program.[8]

> Entergy's Aging Management Plan *(as amended by Entergy on January 7, 2011)* for non-environmentally qualified (EQ) inaccessible cables and cable splices at Pilgrim Station is insufficient to provide reasonable assurance that these cables will be in compliance with NRC Regulations and public health and safety shall be protected during license renewal

The Decision incorrectly argued that the contention was not timely because the Gall revision and Entergy's supplement merely enhanced the original AMP; if the enhanced AMP is inadequate then so, too, was the original and a filing should have been made in 2006. (Decision at 26). The Decision misread precedents.

The Commission decision in Vermont Yankee (CLI-11-02) does not support the Majority's enhancement argument regarding timeliness. CLI-11-02 determined that a contention may be admissible if it is based on an AMP amendment assuming all other filing requirements are met. CLI-11-02 does not make any reference to "holding inadmissible challenges to "enhanced' programs when an original 'unenhanced' program has not been challenged." (Statement at 10)

The Decision was wrong again in its characterization of Oyster Creek. The Majority said "the Commission is plain in its view that an enhancement to a program does not constitute new information sufficient to support a new contention." (Decision at 27, citing Oyster Creek, CLI-09-7, 69 NRC 273-74). However "what the Commission actually did in Oyster Creek with respect to the 'enhancement' ruling of that Board was to find it to be reasonable and to state that it saw 'no error in [its] reasoning.'" (Statement at 11, citing Oyster Creek, CLI-09-7, 69 NRC at

[7] Argued Judge Young Statement, pgs., 7-13

[8] December 23, 2010 NRC made public a new GALL revision (Rev.2); January 7, 2011 Entergy amended its AMP to provide new "commitments" released to inaccessible electric cables based on Rev. 2

274) The Commission did not say a petitioner could not file a contention based on a supplement to an application; neither did the Third Circuit Court of Appeals say anything to the contrary. (NJ Envtl. Fed'n, 2011 WL 1878642 at 7)

Further the Commission in Vermont Yankee said that NEC had not really filed a new contention; whereas PW's January 20, 2011 contention addresses issues never before raised and challenged specifically Entergy's amendment to the AMP. On that basis, Judge Young found the contention timely under 10 CFR 2,326(a)(1) as well as under 2,326(d) and 2.309(c). Further PW's January filing was based on Entergy's amendment to the AMP, and it would also meet 2.309(f)(2). (Statement at 12)

Under 10 C.F.R 2.309(c), the determination whether the filing of a contention is "non-timely" is "based on a balancing of eight factors, the most important of which is "good cause." Crow Butte Resources, Inc.(North Trend Expansion Project), LBP-08-6, 67 NRC 241 (2008) (i) The amendment filed satisfies good cause. The information upon which this contention is based did not become available to the public (including Pilgrim Watch) until January 7, 2011. PW filed January 20, 2011. PW satisfies the remaining seven factors.[9]

[9] (ii)Pilgrim Watch is a party; (iii) its members reside within 50 miles, Mary Lampert within the EPZ. (iv.) Petitioners believe that if Pilgrim is allowed to operate for an additional twenty years without taking the mitigation steps required by virtue of this contention that there will be an unacceptable risk to the environment jeopardizing the health, safety, property and finances of Petitioners' members. (v) None of the factors suggesting "other means" referred to in Sec. 2,10.3.3.3E Factor #5 of the NRC Digest are present here. There is no state judicial forum or other NRC licensing procedure to which Pilgrim Watch can take its concerns regarding the fact that Entergy's amended AMP is insufficient to provide the necessary reasonable assurance that public health and safety shall be protected during license renewal. (vi)The other parties to this proceeding are Entergy and the NRC Staff. Throughout this proceeding both NRC Staff and Entergy (in concert with each other) have consistently opposed Pilgrim Watch's interests. There is no reasonable basis to expect that leopard will change its spots. (vii) The issue presented by this contention is new. The ASLB has not looked at this before. This "factor includes only that delay which can be attributed directly to the tardiness of the petition. Jamesport, supra, ALAB-292, 2 NRC at 631; South Carolina Electric and Gas Co. (Virgil C. Summer Nuclear Station, Unit 1), LBP-81-11, 13 NRC 420, 425 (1981). Here, there is nothing "tardy" about PW's petition to add this new petition. (viii) Absent Pilgrim Watch's participation, it is apparent that neither any other party nor the Board will develop any record whatever regarding the subject of this contention. PW's expert is fully qualified.(Se Declaration of Paul M. Blanch, January 19, 2011; PW Request for Hearing, January 20, 2011)

Affidavit Requirements Under 10 C.F.R. §§ 2.326(b) and 2.309(c)

PW provided an Affidavit by Paul Blanch that set forth the factual and technical bases for the Petitioner's claim. Judge Young found Mr. Blanch's "overall experience establishes his competence, knowledge and expertise for purposes of subsections 2.326(b) and (a)(2). (Statement at 14) He is currently admitted as an expert witness for the NY Attorney General's Office on submerged Non-EQ electric cables. The affidavit's analysis of the amended AMP was timely and testified to the seriousness of the issue. For example, he said:

> It is [his] expert opinion that this is a grave safety issue that might result in common mode failures increacing the probability and possibly challenging: The integrity of the reactor coolant boundary; [t]he capability to shut down the reactor and maintain it in a safe shutdown condition; or, [t]he capability to prevent or mitigate the consequences of accidents. (Blanch Decl. ¶ 50).

Further he explained that a materially different result- a substantially enhanced AMP- would result. The Affidavit lacked headings for each criteria (1-3); but again if that is the Majority's objection than once again they are elevating "form over substance." 10 CFR 2.309(c) does not require an affidavit.

Significance under 10 C.F.R. § 2.326 (a)(2)

PW, through its expert, Paul Blanch and specific reference to multiple federal and industry documents, established that the motion addresses a significant safety/environmental issue. Judge Young agreed. (Statement at 15)

PW's Request for Hearing, January 20, 2011, and expert testimony explained that almost every active safety and non safety system at Pilgrim Nuclear Power Station (PNPS) is dependent upon electrical power to perform its function to prevent major accidents with major radioactive releases to the environment. (Jan 20 Request pg.,8 ¶ 6)

Fukushima and NRC's Task Force Recommendations underscored the significance of PW's Motion[10]. The loss of offsite power was the major contributing factor to the accident that occurred in Japanese reactors of similar age, design (Young at 14-15) and, like Pilgrim, are located on the coast. The Task Force Recommendations, provided to the Board, concluded that

> flooding risks are of concern due to a "cliff-edge" effect, in that the safety consequences of a flooding event may increase sharply with a small increase in the flooding level. Therefore, it would be very beneficial to safety for all licensees to confirm that SSCs important to safety are adequately protected from floods. [Task Force Report, pg., 29]
>
> This reevaluation should consider all appropriate internal and external flooding sources, including the effects from local intense precipitation on the site, PMF on … storm surges, seiches, tsunamis… new flooding hazard data and models will be produced from time to time. Thus, there would be a continuing benefit to having operating reactors reevaluate the implications of updated flooding hazards at appropriate intervals. [Ibid., pg., 30]

PW established that:

- Moisture/wetness hastens cable insulation degradation in Non-EQ submerged cables. Pilgrim's subsurface environment is subject to wetness/moisture due to rain, snow, condensation from temperature variations, twice daily tides, storm surges, and hurricanes. (Blanch ¶¶ 25, 26, 38, 39, 40, 43)
- Contaminants in wetness accelerate degradation. "Pilgrim is located adjacent to Cape Cod Bay; therefore the groundwater has a very high corrosive salt concentrations in the groundwater which will likely accelerate the degradation of cables in contrast to those nuclear plants located away from coastal areas." (Blanch ¶ 22)

[10] 2001/08/08- Pilgrim Watch Request for Leave to Supplement Pilgrim Watch Request for Hearing on the Inadequacy of Entergy's Aging Management Program of Non-Environmentally Qualified (EQ) Inaccessible Cables (Splices) at Pilgrim Station, filed on December 10, 2010 and January 20, 2011; 2011/03/12-Pilgrim Watch Memorandum Regarding Fukushima

- Degradation is time dependent, federal documents show cable failure is correlated with aging. Pilgrim opened in 1972. (Blanch ¶¶ 41, 47, 48, 49)

PW further showed that the AMP is insufficient for a number of significant reasons.

- "There are no proven, commercially available test" that will assure cables that have experienced submergence of any voltage rating from 0 to 345 KV…neither NRC, EPRI, Sandia nor Brookhaven have concluded there is any proven technology to detect degradation." (Blanch ¶ 29; also at ¶ 30-35)
- The AMP "fails to meet the requirements of 10 CFR 54 as there is no technical justification for periodicity of inspections and it is not possible to inspect the condition of cable splices that may exist within submerged conduits." (Blanch ¶ 37)
- "NUREG/CR 7000…recommendations…rely heavily on 'baseline' inspections of cables. Entergy has failed to provide any commitment to establishing any baseline inspections for safety related inaccessible cables." (Blanch ¶ 42)
- National Electrical Manufacturers Association (NEMA) and the National Electric Code (NEC)…are consistent and clearly require that cables be replaced after exposure to any type of submergence." (Blanch ¶44) Blanch concludes that,

> Wire and cable exposed to floodwaters should be replaced to assure a safe and reliable electrical system." When wires and cable products are exposed to water or excessive moisuture, the components may be damaged due to mildew or corrosion. The damage can result in insulation or termination failures. The problem can be more severe if the components have been subjected to salt water during hurricanes, etc., or inland flooding where there may be high concentrations of chemicals, oils, fertilizers et. Such as at Pilgrim Station. (Blanch ¶ 21)

- The Aging Management Program is vague.

> Implementation of a program consistent with the vague guidance of the GALL revision provides no assurance that the proposed program is in compliance with NRC regulations and industry standards. Gall must clearly recognize

these cables must be addressed under the requirements of 10 CFR 50.49 as they are not located in a mild environment as originally anticipated in the design. (Blanch ¶26)

- Cables less than 400 volts need to be included in the AMP.

  Entergy has redefined the scope of its cable monitoring program eliminating the majority of vital cables < 400 volts that meet the requirements defined in 10 CFR 54, yet Entergy and NRC has failed to address any requriments for aging management for these cables and wires. Many of these cables control systems within the scope of 10 CFR 54 and must meet the requriments of 10 CFR 50. 49 to assure continued functionality for aging and submergency for normal and design bases events. All cables within the scope of 10 CFR 54 must be included in the AMP and wires and cables cannot be excluded from the AMP. (Blanch ¶ 28)

- Cables should be replaced "with cables designed and qualified for underwater operation;" NUREG/CR-7000 supports Mr. Blanch's opinion. (Blanch ¶ 42; also at ¶¶ 21. 22)

The serious nature of submerged Non-EQ cables drove our eminently qualified expert to conclude that:

> this is a grave safety issue that might result in common mode failures increasing the probability and possibly challenging: The integrity of the reactor coolant boundary; [t]he capability to shut down the reactor and maintain it in a safe shutdown condition; or, [t]he capability to prevent or mitigate the consequences of accidents." (Blanch ¶ 50).

It is noteworthy that the Majority's decision did not dispute the significant issues brought forward in Pilgrim Watch's contention.

Affidavit and "Materially Different Result" Requirements of 10 C.F.R. § 2.326(a)(3), (b)

The Majority says that PW "nowhere in its arguments attempts to make the case that a materially different result would be likely[11]." (Decision at 12) But they fail to provide a whit of

[11] Pilgrim Watch respectfully asks the Commission to recognize that there is no prior result for PW to show a materially different result- nothing upon which to base a comparison. This, in itself, reinforces why no motion to reopen is required.

support for that conclusion.

In contrast, Judge Young explains, at 18 that "the standard for determining whether a party has met the "materially different result" requirements of 10 C.F.R. § 2.326(a)(3) and (b) is whether the party can defeat a motion for summary disposition," and upon examination concludes that PW's expert put forward sufficient evidence showing that there are genuine facts in dispute. Judge Young concluded that, "Pilgrim Watch … could defeat a motion for summary disposition."(Statement at 31, emphasis added)

Disputed Material Facts Regarding Sufficiency Amended AMP, Examples:

Entergy said that they did not include cables with voltages < 400 V, because operating experience …has not indicated any signficant frequency of water failure (reflecting) degradation of cable inulation is generally a function of both voltage and the presense of water. (Entergy Decl. ¶26) PW dispute showed:

> Entergy has abitrarily redefined scope of its cable monitoring program thereby eliminating the majority of vital cables within the scope of 10 CFR 54.4 and 54.21 and ignoring miles of cables < 400 V many of which control systems within the scope of 10CFR 54 and must meet the requirements of 10 CFR 50.49 to assure functionality for aging an submergence for normal and design basis accidents –all cables within scope 10 CFR 54 must be included in AMP (Blanch ¶28)

Entergy incorrectly claimed that "Multiple proven tests exist for determining degradation of cable insulation." (Entergy declaration ¶ 27, Young Statement at 20) PW's dispute, said:

> There is no "proven, commercially available test" that will assure cables that have experienced submergence for any voltage rating from 0 to 345 KV. This statement by Entergy infers they have a "proven method" for detecting cable deterioration yet neither the NRC, EPRI, Sandia nor Brookhaven have concluded there is any proven technology to detect degradation. ((Blanch ¶ 29 ; also at ¶ ¶ 20, 30, 31, 32, 33)

Entergy later admitted to the Commonwealth's Legislature (April 6, 2011) that there were no proven tests.[12]

Entergy said that, "[T]here is no regulatory requirement for baseline inspection." (Entergy Decl. ¶28-29). PW's dispute noted that the comment was irrelevant to the question of whether the AMP was sufficient, and that

> NUREG/CR-7000 is the most comprehensive study on cable degradation. The recommendations of this NRC sponsored study heavily rely on "baseline" inspections of cables. Entergy has failed to provide any commitment to establishing any baseline inspections for safety related inaccessible cables. (Blanch ¶ 42)

Entergy claimed that there is "no regulatory requirement to perform a hydrological survey of the Pilgrim site (but it has) performed such a survey in 2007 as part of the groundwater initiative" which confirm[ed] Pilgrim cables are installed above the groundwater table." (Entergy Decl. ¶ 35-36) PW's dispute again noted that the comment was irrelevant to the question of whether the AMP was sufficient and PW's expert explained that:

> Absent from the AMP is a requirement to perform a thorough subsurface hydrological-geological survey over the entire site to determine groundwater flow today as it relates to inaccessible Non-EQ cables within scope...Further, a requirement to follow up with regular subsequent scheduled subsurface surveys to track changes in groundwater flow and tides expected from, for example, onsite construction or impacts from global warming changes, 2012- following up with regular subsequent subsurface studies to track changes in groundwater flow and tides expected from on site construction and global warming changes, 2012-2032. (Blanch ¶ 18)

Entergy wrongly said that "Pilgrim's cables are located in a 'mild environment'" and concluded that 50.49 does not apply to them. (Entergy Decl. ¶ 39) PW's dispute showed otherwise.

> Pilgrim is located adjacent to Cape Cod Bay; therefore the groundwater has very high corrosive salt concentrations in the groundwater which will likely accelerate the

[12] Entergy expert verified that they had misrepresented that there were "proven tests" at the Commonwealth Massachusetts General Court Hearing April 6, 2011(Pilgrim Watch Memorandum—Entergy's Incorrect and Misleading Information Regarding Proven Tests to Detect Cable Insulation Degradation (Apr. 11, 2011), Pilgrim Watch Memorandum—Entergy's Incorrect and Misleading Information Regarding Proven Tests to Detect Cable Insulation Degradation—Video Supplement (Apr. 12, 2011)

> degradation of cables in contrast to those nuclear plants located away from coastal areas. The risk of common mode failure of submerged cables at Pilgrim is significantly greater than most US nuclear plants. The submerged cables are not located in a mild environment as demonstrated by actual findings of flooded cables. (Blanch ¶¶ 23; also at ¶28)
>
> 10 CFR 50.49 (c) states "Requirements for (1) dynamic and seismic qualification of electric equipment important to safety, (2) protection of electric equipment important to safety against other natural phenomena and external events, and (3) environmental qualification of electric equipment important to safety located in a mild environment are not included within the scope of this section. A mild environment is an environment that would at no time be significantly more severe than the environment that would occur during normal plant operation, including anticipated operational occurrences."
>
> It is my opinion that the environment surrounding many of these cables is not a "mild environment" with extreme changes from dry to submerged due to temperature changes, high tides, snow melting, periodically exposed to corrosive groundwater and may be exposed to other environmental changes and stresses during accident conditions from natural phenomena and external events such as major flooding due to tides and hurricanes. (Blanch 51)

Entergy argued that Commercial industry standards of National Electrical Manufactuers Association (NEMA), National Electric Code (NEC) "do not apply to underground power cables installed at Pilgrim." (Entergy Decl. ¶¶ 44-49) PW's Dispute showed:

> (NEMA) the independent experts for electrical standards including the National Electric Code (NEC) adopted by every State in the USA (Blanch ¶ 22) The[se] organizations (have) the most detailed knowledge of this subject. These organizations are consistent and clearly require that cables be replaced after exposure to any type of submergence. (Blanch ¶ 44)

Entergy wrongly argued that any cable failures "will not result in common mode failures because the liklihood of simultaneous cable failure is extremely low" (Entergy Decl. 44-49, 59-60) However, PW dispute showed otherwise. IN-2010-26 warns that it is not simply a single failure that is of concern. NRC's Information Notice said:

> Cables not designed or qualified for, but exposed to, wet or submerged environments have the potential to degrade. Cable degradation increases the probability that more than one cable will fail on demand because of a cable fault, lightning surge, or a

switching transient. Although a single failure is within the plant design basis, multiple failures of this kind would be challenging for plant operators. Also, an increased potential exists for a common-mode failure of accident mitigating system cables if they are subjected to the same environment and degradation mechanism for which they are not designed or qualified for." (IN 2010-26, at 7; and Blanch Decl. ¶ 45)

As noted by Judge Young (Statement at 27-8) in PW's Reply to Entergy and NRC Staff Responses to PW's January 2011 Request (02/24/11) PW attached a slide from NRC Staff Affiant Roy Matthew.[13] It showed:

> Electric cables are one of the most important components in a nuclear plant to provide the various plant systems function to mitigate the effects of an accident and preserve the safety of the plant during the normal, abnormal, and anticipated operational occurrences.
>
> If cable degradation from aging or other mechanisms remain undetected, it can lead to deterioration of cable performance or result in cable failure when it is relied on to mitigate design bases accidents and transients.
>
> In response to a 2007 letter licensees had "provided data showing that the number of cable failures is increasing with plant age, and that cable failures are occurring with the plants' 40-year licensing periods," which "failures have resulted in plant transients and shutdowns, loss of safety redundancy, entry into limiting conditions for operation, and undue challenges to plant operations (NRC, Slide10)

Judge Young concluded that,

> Intervenor Pilgrim Watch has demonstrated a genuine dispute on material issues of combined fact and law. It is clear that, while some of Mr. Blanch's statements come close to being "mere allegations," Pilgrim Watch through his Affidavit has raised significant, genuine, and material issues, regarding whether the Pilgrim cables addressed in Entergy's AMP amendment in question are within the scope of and meet the requirements of 10 C.F.R. §§ 50.49, 54.4, and 54.21; whether the amendment includes all the cables that it should include under these rules; and whether the surveying, monitoring, and inspection programs for inaccessible cables at Pilgrim are sufficient to meet the requirements of the rules and to protect public health and safety. (Statement at 28)

[13] NRC Public Meeting "Inaccessible or Underground Cable Performance Issues at Nuclear Power Plants," Aug. 10, 2010, Chaired by Roy Matthew, Slide 10 (ADAMS No. ML092460425)

It is not appropriate for the Commission to weigh the evidence; but what is important is that PW demonstrated a genuine dispute on material issues of fact and showed that it could defeat a motion for summary disposition on the issues raised in its contention.

Admissibility Under 10 C.F.R. § 309(f)(1)(i)-(vi)

Pilgrim Watch has clearly satisfied the requirements of 10 C.F.R. § 309(f)(1)(i)-(vi). Judge Young agrees. (Statement at 31-32). (I & ii) Statement of issue and bases were provided. (Request, Section VI, pgs., 7-5; Blanch Affidavit) (iii & iv) The contention raises questions about the safety of equipment, and argues must comply with 10 C.F.R. §§ 50.49, 54.4, and 54.21 which brings it within the scope of this proceeding. (Request, Section III, pgs., 4-5) (v & vi) Blanch Affidavit provides a concise statement of facts/expert opinion in support of the contention and provides "sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact."

3. NEPA: Failed To Consider New, Significant And Material Information

Although National Environmental Policy Act, NEPA, 42 USC § 4332, requires that the ASLB look at new and significant information in order to "help public officials make decisions that are based on understanding of environmental consequences, and take decisions that protect, restore and enhance the environment" 40 CFR § 1500.1(c) (Emphasis added), the Board failed to do so. PW submitted to the Board new, significant and material information in five Memoranda[14] relating to the new contention addressed in the Board's ruling. The Board's

[14] Three Memorandum relating to Fukushima: Pilgrim Watch Memorandum Regarding Fukushima (Mar. 12, 2011), Pilgrim Watch Post-Hearing Memorandum (Mar. 28, 2011), Pilgrim Watch Request for Leave to Supplement Pilgrim Watch Request for Hearing on the Inadequacy of Entergy's Aging Management Program of Non- Environmentally Qualified (EQ) Inaccessible Cables (Splices) at Pilgrim Station, filed on December 10, 2010 and January 20, 2011 (Aug. 8, 2011) at 1 (citing Dr. Charles Miller, et al., Recommendations for

decision erroneously said that they "have no bearing on today's ruling." (Order at 10-11, Fn. 61) They were wrong. Two memoranda addressed Entergy's and the GALL's incorrect and misleading information claiming that there were proven tests to detect cable insulation degradation, a significant factor in the dispute whether Entergy's AMP for submerged Non-EQ cables was sufficient. Two memoranda concerned pertinent information from Fukushima and the Task Force Report; and one quoted NRC Region I Adminstrator, William Dean, saying to the press that "submerged cables at nuclear plants (are) something that needs to be addressed.[15]"

Proven Tests: Entergy's Commitment 15 and the revised Gall say that testing must be a proven method for detecting deterioration of the insulation system due to wetting, such as power factor, partial discharge, or polarization index, or other testing that is state-of-the-art at the time the test is performed. Entergy's Application committed to implement these GALL programs, making no exceptions. However, this incorrectly infers they have a proven method for detecting cable deterioration. PW cited EPRI, Sandia and Brookhaven studies that concluded there is not any proven technology to detect degradation (Blanch Decl., 29-33); and NEMA and NEC that also concluded there is not any proven technology to detect cable and splice degradation due to periodic submergence in a saltwater and otherwise chemically contaminated environment. (Blanch Decl., 33) Entergy's responses claimed otherwise. Pilgrim's Memoranda, discussed above (pg., 15, Fn. 12, 13 ; pg., 16, Fn. 14) showed unequivocally that Entergy had provided to

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Enhancing Reactor Safety in the 21st Century, the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident (July 12, 2011)). Two Memoranda relating to Entergy's incorrect and misleading information sating that there were proven tests to detect cable insulation degradation: Pilgrim Watch Memorandum—Entergy's Incorrect and Misleading Information Regarding Proven Tests to Detect Cable Insulation Degradation (Apr. 11, 2011), Pilgrim Watch Memorandum—Entergy's Incorrect and Misleading Information Regarding Proven Tests to Detect Cable Insulation Degradation—Video Supplement (Apr. 12, 2011).

[15] Reformer, Josh Stilts, June 23, 2011 at http://www.reformer.com/localnews/ci_18334719

the Board false testimony, a fact that the Board's Decision finds unimportant. At an April 6, 2011 Massachusetts General Court public hearing, officially recorded, Entergy said that there were no proven commercially available tests to detect cable insulation degradation, contradicting statements made in previous filings in this proceeding and oral testimony March 9, 2011. The Board's Order finding that these memoranda "have no bearing on today's ruling" was wrong on another very important level. Entergy's statement falls far short of "the truth, the whole truth, and nothing but the truth." to either Pilgrim Watch and the Board whether there were proven tests to detect cable degradation.[16] "Permission to run a nuclear plant is a public trust;" whether they have earned trust is a relevant issue that the Board's Order should have taken into account. Reasonable assurance is not provided by false assurances.

Fukushima and NRC Task Force: PW's July 12, 2011 Memorandum (Request to include in the Record pertinent excerpts from, NRC's Task Force Recommendations for Enhancing Reactor Safety in the 21st Century: The Near-Term Task Force Review of Insights from The Fukushima Dai-Ichi Accident) provided excerpts from the Task Force Report regarding flooding.[17] Yet the Decision decided to ignore the new information provided by PW and absurdly find that, "Pilgrim Watch fails to provide any connection or logic explaining how those factors (if they exist) are related to this proposed contention…[n]or do the assertions regarding the problems at the Fukushima reactors in any way affect the other failures of Pilgrim Watch

[16] Also the company's credibility was an important issue in Vermont when Entergy failed to provide correct information to the State of Vermont regarding whether Vermont Yankee's buried pipes carried radioactive liquids.

[17] **Task Force Recommendations Regarding Flooding**: 2.2 Initiate rulemaking to require licensees to confirm seismic hazards and flooding hazards every 10 years and address any new and significant information. If necessary, update the design basis for SSCs important to safety to protect against the updated hazards. 2.3 Order licensees to perform seismic and flood protection walk-downs to identify and address plant-specific vulnerabilities and verify the adequacy of monitoring and maintenance for protection features such as watertight barriers and seals in the interim period until longer term actions are completed to update the design basis for external events. [pg., 30]

regarding this contention. These concerns simply provide no basis upon which we might rule otherwise than in accordance with the NRC rules at 10 C.F.R. § 2.326." (Decision at 23)

Contrary to the Decision, the connection is blatently obvious. Judge Young (Statement at 15) said that "Although both Entergy and NRC Staff object to these filings …loss of power (being a contributing factor to the Fukushima accidents) appear to be pretty clearly undisputed and beyond reasonable controvery or dispute." PW's contention is focused on one fact that Pilgrim's submerged non-environmentally qualified cables that are important to safety are located in an environment for which they are not qualified. An environment characterized by wettness and moisture due to site-specific factors including rain, snow melt, twice daily tides, and flooding due to storms that are predicted to increace in frequency and severity due to climate change. The relevance of the new and significant information in the Task Force Report on Flooding (PW's August 8, 2011 Memorandum) is made obvious by NRC Inspection Report *05000293/2010003*, 1RO6 Flood Protection Measures, July 29, 2010. The Inspection Report showed that NRC inspectors looked into three cable vaults, and observed partially and fully submerged medium voltage cables" in all three; indeed Entergy admitted that two of the three were "always found submerged." (Report, pp.7-8, emphasis added) The Inspection Report made clear that flooding is a recurring, if not rampant, issue and lessons learned from Fukushima and by the NRC Task Force must be considered.

III. PETITION FOR REVIEW OF CLEANUP CONTENTION (NOV 29, 2010)

A. The Decision Of Which Review Is Sought

The Decision denied Pilgrim Watch Request for Hearing on a New Contention (Nov. 29, 2010) [hereinafter "Cleanup Contention"]. It is "based on new information indicating that no

third party has assumed responsibility for cleanup after a severe nuclear reactor accident, no cleanup standard had been set, and no source is identified to pay for the cleanup." (Decision 19)

The matters of fact or law raised in the petition for review were previously raised in filings before the Board.[18]

B. Errors In The Board's Decisions

As discussed in more detail below, the Decision is erroneous for a number of different, but often interrelated, reasons. 1. Pilgrim Watch's Cleanup Contention is not required to satisfy the standards for reopening the record. 2. The Board misunderstood the issues in the Cleanup Contention. 3. The Majority failed to consider new, significant and material information from Fukushima. NEPA requires the Board to consider new information

C. THE COMMISSION SHOULD REVIEW THE DECISION

Fundamental principles and fairness require the Commission to review the Decision and remand it back to the Board. Its findings were incorrect. The Board wrongly found that: (i) The contention "is inadmissible for its failure to satisfy the exlicit and intentionally stringent requirements for reopening the record." (Decision, pg., 20) (ii) The contention's mitigations represented "challenges regard[ing] policy matters that are solely within the jurisdiction of the Commission and challenges to binding Commission rulings regarding what is required in a SAMA analysis. PW argued along the lines of the need to perform more conservative analysis, to use 95th percentile computations, as well as the challenge of using a discount factor to evaluate the time-effects of clean-up costs." These, they claimed, were all previously advanced by Pilgrim

[18] Pilgrim Watch Request For Hearing On A New Contention, Nov 29, 2011; Pilgrim Watch Reply to Entergy's and NRC Staff's Answers Opposing Pilgrim Watch Request for Hearing on a New Contention, Jan 7, 2011

Watch in this proceeding and explicitly rejected by the Commission. The Decision (19) also concluded that the contention "is outside the scope of this proceeding."

Argument Why The Decision Is Erroneous

1. **Pilgrim Watch's Cleanup Contention Did Not Require It To Satisfy The Standards For Reopening The Record**

Discussed in full in the foregoing section, beginning on page 3, Section II. C. 1.

2. **The Contention is Within Scope; The Challenges Did Not Simply Regard Policy Matters Or Request Previously Rejected Remedies- No Remedies Were Rejected For This Cleanup Contention That Was Never Heard**.

Scope: This contention seeks compliance with NEPA and is based on the applicant's Environmental Report. The contention addresses a defect or dispute regarding the Applicant's SAMA analysis, a Category 2 issue, and thus is within the scope of this proceeding. PW explained why Entergy's required cost-benefit analysis did not satisfy the requirement.

The substance of this contention is that although a SAMA analysis is required in PNPS' license renewal, Entergy could not, and did not, conduct a valid cost-benefit analysis to determine what mitigation steps should be taken. This is because new, significant and material information brought forward by PW showed: (1) There is no established cleanup standard. Research shows that the cost to clean up, or remediate the affected area, depends heavily on the cleanup standard applied to the event and is highly sensitive to this standard[19]; and, the potential standards appear to range from 15 mrem/yr (EPA "Establishment of Cleanup Levels for CERCLA Sites with Radioactive Contamination) to 5 rem/yr. (NRC's "Standards for Protection Against Radiation," recommendation and established dose limit for workers of 5 rem/yr (10 CFR 20 Subpart C)) or higher. (2) There is no responsible federal agency in charge of cleanup. This

[19] Economic Consequences of a Rad/Nuc attack: Cleanup Standards Significantly Affect Cost Barbara Reichmuth, Steve Short, Tom Wood, Fred Rutz, Debbie Swartz, Pacific Northwest National Laboratory, 2005

will affect offsite costs because the cleanup process will be less efficient and therby more costly; and if EPA is in charge there will be a more conservative cleanup standard and EPA, unlike NRC, requires local and state involvement in the remediation's decision-making process resulting in an overall longer time period that increases overall costs. (3) There is no source of funding. Price Anderson does not cover cleanup.

Therefore, Entergy could not satisfy its obligation to reasonably estimate the real costs of offsite consequences in a severe accident. Absent any way to determine and pay for clean-up costs, public health and safety can be protected only by (i) denying the license application because they failed to do a valid cost-benefit analysis or (ii) require the Applicant to take additional steps to perform a more conservative analysis that inevitably would add SAMAs to mitigate the potential need for significant clean-up for which there was no standard for cleanup, responsible agency, or monies set aside. These issues were never argued.

The contention does not request remedies previously rejected in this proceeding by the Commission itself. The Board failed to understand that the contention identified a serious problem and offered two solutions, made in the context of this new contention, not in the context of the SAMA Remand. One option was simply to deny the license application until a responsible party for cleanup is identified, a cleanup standard set, and a source for funding identified. The second option was to recognize that without a standard, identified third party and source of monies, Entergy was unable to perform a meaningful SAMA analysis using "standard practices;" and that, as a result, Entergy now should be required by this Board, as a suggested middle-ground, to perform a meaningful, and far more conservative, SAMA analysis and to take all possible steps to mitigate the risk of a severe accident and extent of potential offsite consequences. The choices seemed fair otherwise, like at Fukushima today, the public would be

left after the accident in communities that put their family's health at risk and largely financially responsible for any future real clean-up and personal losses.

The Commission Should Review the Decision & Remand it Back to the Board

The Commission should review, reverse and remand the Decision back to the Board, particularly in view of the recent events in Pilgrim's sister reactors in Japan. PW showed it met admissibility requirements;[20] and most important that Entergy did not perform a credible SAMA analysis, as they are required to do. Therefore public health, safety and economic well-being are at risk going forward.

IV. CONCLUSION

For the foregoing reasons, the Commission should review and reverse the Decisions in ASLBP-06-848-02-LR and either deny the license renewal application or remand the matters to the Board for further proceedings after the Commission has corrected the many legal and factual errors contained in the three decisions.

Respectfully submitted

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August 26, 2011

[20] Admissibility issues that the contention was within scope; raised a material issue and genuine dispute; provided substantial bases; that there was no need to re-open the record and PW's filing was timely and met Section 2.309's 8-part test for presenting a new contention were argued in *Pilgrim Watch Reply to Entergy's and NRC Staff's Answers Opposing Pilgrim Watch Request for Hearing on New Contention* (Jan, 14, 2011)