October 8, 2010

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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)	)	

NRC STAFF'S REPLY TO PILGRIM WATCH'S BRIEF

INTRODUCTION

Pursuant to the Atomic Safety and Licensing Board's ("Board") direction during the September 15, 2010 telephone conference between the Board and the parties, the Nuclear Regulatory Commission staff ("Staff") hereby files its reply to "Pilgrim Watch's Brief: Petitioner Timely Raised Issue of NRC's Practice to Use Mean Consequence Values in SAMA Analysis" ("PW's Brief"). As discussed below, Pilgrim Watch's ("PW") assertions regarding its original Contention 3 are unsupported because its proffered bases made no reference to any information that could reasonably be interpreted to include mean consequence values. Because PW claims that it timely raised the issue of mean consequences on the issues identified in its "Request for Hearing and Petition to Intervene by Pilgrim Watch" ("Petition to Intervene"), it did not address the criteria in 10 C.F.R. § 2.309(c) and (f)(2) governing the timeliness of contentions. PW's assertion that its Petition should be held to a lesser standard because of its *pro se* status is inconsistent with the record. PW was represented by counsel at the inception of this proceeding, during the time it filed its Petition to Intervene, and for almost an entire year after that filing. Therefore, PW's Petition to Intervene should not be evaluated as if filed by a *pro se* party. Since PW did not raise its dispute regarding mean consequence

values in its Petition to Intervene and did not identify subsequent places where the issue was raised and evaluated under 10 C.F.R. § 2.309(c) and (f)(2), PW's effort to amend the remanded Contention 3 to include mean consequence values should be denied.

PROCEDURAL BACKGROUND

The procedural history has been summarized in the October 1, 2010 brief titled "NRC Staff Brief Regarding Timeliness of Pilgrim Watch's Raising of Mean Consequence Concerns" ("Staff's Brief"). During the September 15, 2010 telephone scheduling conference, the Board ordered the parties to brief the question of whether PW had raised the issue of the use of mean consequence values in a timely fashion.[1] More importantly, the Board directed the parties to address the timeliness standards at 10 C.F.R. § 2.309(c) and (f)(2) for any assertion regarding the mean consequence values being raised after the filing of PW's Petition to Intervene.[2]

DISCUSSION

I. PW Bears the Burden of Demonstrating that a Contention Was Admissible

After more than four years of litigation, PW can only point to two isolated sentences in its original contention, which use the terms "input parameter" and "parameter," and a title to a subsection of its original contention, which used the term "input data," as bases for its claims regarding mean consequence values. PW's Brief at 3. In order to overcome the paucity of evidence, PW asserts that everyone knows that the term "parameter" means "averaging cost concerns." *Id.* PW, then, attempts to demonstrate that the Board, Entergy, and the Staff clearly knew the meaning based on language in orders and filings. *Id.* at 5–10. The full extent of PW's

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[1] Order (Confirming Matters Addressed at September 15, 2010, Telephone Conference) at 2, (Sept. 23, 2010).

[2] Transcript ("Tr.") p. 726 lns. 4–11.

alleged proof that the other parties, including the Board, were aware of what PW meant by the term "parameter," however, is essentially a collection of quotes from filings by the other parties and orders of the Board that were in turn quoting or paraphrasing PW's own language.[3] *Id.* But,

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[3] Although, at times, PW indicates the other parties were citing its Petition or some other filing, an examination of those quotes shows that the Board or other parties were, in fact, quoting PW's language. For example, PW claims that the Board knew that its averaging cost concerns were included in the term "parameter" because the Board quoted PW's original Contention 3. PW's Brief at 5. PW states that the Board, in determining whether any portion of Contention 3 was admissible, demonstrated that it knew that PW was challenging mean consequence values when it stated that "[b]y using probabilistic modeling and <u>incorrectly inputting certain parameters</u> into the modeling software .... (Order, N. 310, citing Petition at 26)." PW's Brief at 5. However, examining the Board's Order shows that the Board is simply quoting Contention 3 as originally asserted by PW. Memorandum and Order (Ruling on Standing and Contentions of Petitioners Massachusetts Attorney General and Pilgrim Watch) LBP-06-23, at 77 (October 16, 2006) (quoting PW's Petition to Intervene at 26). Most of PW's other attributions of knowledge to the Board consist of similar instances of the Board quoting language from PW's filing.

Similarly, PW's assertions regarding Staff's knowledge consist of language quoted out-of-context. For example, PW quotes the Staff's Response to PW's Petition stating "minimized consequences by using <u>incorrect input parameters</u>. (emphasis added)" PW's Brief at 8 (PW's emphasis). An examination of the actual language shows that the Staff stated that "Petitioner further asserts that Entergy used an outdated version of the MACCS2 code and User Guide ([PW's Brief] at 31) and 'incorrect input parameters, including meteorological, emergency response, and economic data, into a software model of limited scope.' [PW's Brief] at 29." NRC Staff's Response To Request for Hearing and Petition to Intervene Filed by Pilgrim Watch at 23–24. Again PW asserts that Staff knew of PW's intent from the mere fact that the Staff quoted PW's own filings.

Finally, PW asserts that Entergy knew PW's intention because the attachments to the motion for summary disposition of Contention 3 utilized the term "mean" in a number of locations. But PW's arguments are unpersuasive once the context of the quotes is examined. For example, PW quotes the Dr. O'Kula's affidavit stating that "[t]he mean values of the consequence distributions for each postulated release category are used in the analyses and the mean population dose and the mean offsite economic costs are multipled by the frequency of occurrence for the postulated release condition to determine mean PDR and OECR values for each release condition." PW's Brief at 9. The quote from Dr. O'Kula's affidavit shows that he was not addressing any issue raised by PW but merely providing an overview of how MACCS2 works, in order to give context to his specific explanations regarding meteorological, evacuation times, and economic costs issues addressed later.

the Board and the other parties' responses to PW's pleadings over the years of litigation are simply not relevant to the question of whether PW actually raised the issue in its Petition. This scintilla of proffered evidence, less than three sentences, does not meet the requirement to set forth an admissible contention.

PW's arguments are insufficient because the burden of setting out an admissible contention is on the petitioner. *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 422 (2001). The Commission and Boards are not expected to search through pleadings to find a tiny speck of information necessary to discern the petitioner's intent. *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 15 (2001) (*citing Hydro Resources Inc.*(P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-04, 53 NRC 31, 46 (2001)). Nor are the Boards expected to search through pleadings to find arguments and support never advanced or otherwise infer bases for contentions that a party failed to articulate. *USEC, Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 457 (2006). Thus, it was incumbent on PW to clearly identify its claims relating to the mean consequence values in its original petition if it was intending to litigate the issue at hearing. PW did not identify mean consequence values in its Petition to Intervene. Thus, the PW's effort to amend the remanded Contention 3 to include mean consequence values should be denied as untimely.

PW's Brief invites the Board to liberally interpret its Petition to Intervene because it is appearing *pro se*. PW's Brief at 2 and 15. PW cites the NRC Practice and Procedure Digest as authority that "[p]ro se intervenors are not held in NRC proceedings to a high degree of technical compliance with legal requirements ...." *Id.* PW's assertion is factually insupportable.

Contrary to PW's current status, it was adequately represented by competent counsel when its Petition to Intervene was filed and that representation continued for almost an entire year.[4] As such, PW's Petition must necessarily be held to the same standard as all other parties to the proceeding.[5] The Commission standards for contention admissibility are applied strictly. The Commission stated that

> To intervene in a Commission proceeding, including a license renewal proceeding, a person must file a petition for leave to intervene. ... The requirements for admissibility set out in 10 C.F.R. § 2.309(f)(1)(i)-(vi) are "strict by design," and we will reject any contention that does not satisfy these requirements. Our rules require "a clear statement as to the basis for the contentions and the submission of . . . supporting information and references to specific documents and sources that establish the validity of the contention." Mere 'notice pleading' does not suffice." Contentions must fall within the scope of the proceeding – here, license renewal – in which intervention is sought.

AmerGen Energy Company, LLC (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 118-19 (2006) (footnotes omitted). PW's lack of relevant and material support showing that it disputed the use of mean consequence values does not show the high degree of specificity required for a valid and admissible contention. Even assuming, contrary to the Commission's precedent, that potential intervenors in licensing proceedings could submit an admissible contention that provided mere notice of the issues to be litigated, PW's proffered facts did not provide notice to the Board, Entergy, or the Staff.

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[4] PW's counsel filed her Notice of Appearance on May 25, 2006, and her Notice of Withdrawal on May 22, 2007.

[5] The Staff does not agree that there is a different standard for contentions filed by *pro se* litigants. All litigants must meet the regulatory requirements.

Since PW's Petition to Intervene failed to plead with sufficient specificity, or to plead the issue of mean consequence values at all, PW's attempt to have the remanded Contention 3 include its averaging cost concerns should be denied.

II. The Term "Parameter" Is Insufficient to Prove that PW Disputed the Use of Mean Consequence Values in its Original Contention 3

PW's sole support for the proposition that it raised its dispute regarding the use of mean consequence values relies on three isolated references in its Petition to Intervene. PW's Brief at 3–4. PW asserts that it used the term "input parameter" twice, the term "parameter" once, and the term "input data" once, which was also used by the Board to fashion the admitted contention. *Id.* PW also cites to the declarations filed in support of its opposition to the summary disposition of Contention 3, in which it uses the terms "parameter(s)," meteorological parameterization," "parameterization," and "input parameters."[6] As explained below, PW does not provide any specific evidence in its original contention or the bases it advanced in support of its original contention to show that it was concerned with the mean consequence values. The online sources PW has cited do not provide any credible reason to believe that mean consequence values or averaging cost concerns were encapsulated by the terms "parameter," "input parameter," and "input data." Thus, PW's averaging cost concerns should be excluded from the remanded Contention 3.

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[6] Based on PW's assertion that the timeliness requirements of 10 C.F.R. § 2.309 are irrelevant, the information raised by PW's proffered experts in opposition to summary disposition are not material to whether PW raised the issue of mean consequence values in its Petition to Intervene. For the purposes of Section II, the Staff will address the terms raised in by PW's expert declarations. In Section III, the Staff will address why PW's expert declarations in opposition to summary disposition are not legally material to the analysis of the content of the Petition to Intervene.

A. PW's Use of Online Sources Outside the Documents Cited in Support its Contention Are Unpersuasive

In support of its assertion that the terms "parameter" and "input data" are understood to encompass the mean consequence analysis, PW cites The Free Dictionary, Answers.com™, Wikipedia™, and Dictionary.com.[7]

Based on these sources, PW argues that "[t]he definition of 'parameter' is well understood to encompass 'averaging practice concerns' ...." PW's Brief at 3. In its Petition, PW cites two uses of the term "parameter" that it asserts should have put all the parties and the Board on notice that it was disputing the mean consequence values generated as an output of the MELCOR Accident Consequence Code Systems ("MACCS2") code. *Id.* A careful examination of the terms PW defines and their definitions, however, does not support PW's argument that "parameter" should be interpreted as being equivalent to "averaging practice concerns" or more importantly, the use of mean consequence values. Since PW's asserted bases for concluding that it raised the issue of mean consequence values contains no reference to the term "statistics," PW's proffered definitions are not material to the issue and should be disregarded. *See* PW's Brief at 3. PW also raises one other term, "input data," contained in a title to a subsection of its Petition.

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[7] Staff counsel tried to confirm the quotes provided by PW and was unable to locate many of them. PW's quotes from The Free Dictionary, Dictionary.com, and Answers.com could not be located. The actual language from those sources varied from the language provided in PW's Brief. *See e.g.* http://dictionary.reference.com/browse/input+data?&qsrc= (last visited October 5, 2010); http://www.thefreedictionary.com/input+data (last visited October 5, 2010); http://en.wikipedia.org/wiki/Parameter (last visited October 5, 2010); http://wiki.answers.com/Q/Special:Search&search=statistics&limitn=old (last visited October 5, 2010); http://www.thefreedictionary.com/statistics (last visited October 4, 2010). For Answers.com, Staff counsel typed in "statistics" as the search term and received more than 500 possible pages. The 500 pages were sampled but the quoted language could not be located.

Substituting PW's proffered definition for "parameter" results in meaningless sentences. For example, PW cites to a passage from their Petition, which would read as

> Entergy has used incorrect input [of mean consequence values], including meteorology, emergency response, and economic data into a software model of limited scope. In this contention Petitioners will address the input [mean consequence values] used by Entergy in its SAMA analysis.[8]

if "mean consequence values" was substituted for "parameter." Similarly, PW's other passage would read

> Currently the complete input to the MACCS2 for license renewal of Pilgrim are not publicly available, and are not included in the Applicant's Environmental Report. Without knowing what [mean consequence values] were chosen by the Applicant, it is not possible to fully evaluate the correctness of the conclusions about Severe Accident Mitigation Alternatives.[9]

Webster's Unabridged Dictionary defines parameter very differently. The dictionary provides three definitions of "parameter":

> 1: the relative intercept made by a plane on a crystallographic axis, the ratio of the intercepts determining the position of the plane ...
>
> 2 a: an arbitrary constant characterizing by each of its values some member of a system (as of expressions, curves, surfaces, functions) ...
>
> b: an independent variable through functions of which other functions may be expressed ....[10]

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[8] PW's Brief at 3.

[9] *Id.*

[10] Webster's Third New International Dictionary Unabridged 1638 (1986).

With regard to statistics, the term "parameter" is defined as "a numerical measure of the population; its value is a function of the values of the variables of the members of the population."[11] Neither of these two definitions comport with PW's definitions. None of the definitions of the term "parameter" that were asserted by PW, used in statistics, and cited from Webster's, would allow anyone to anticipate that PW's actual challenge was to mean consequence values.

PW's proffered definition does not make sense in the context of the quoted language. PW states that "Entergy has used incorrect input parameters including meteorology, emergency response, and economic data into a software model of limited scope." PW's Brief at 3 (emphasis added). PW says that parameter should be read to include "averaging cost concerns" or mean consequence values. "Averaging cost concerns" and mean consequence values are not an input into the MACCS2 code. The underlying issue, "mean consequence values," is an output of the MACCS2 code. The use of the term "including" implies that "input parameters" should be interpreted to at most include issues similar to subsequent list of meteorology, emergency response, and economic data. Averaging cost concerns and mean consequence values are wholly unlike these three discrete issues enumerated in the Petition for at least 3 reasons. Mean consequence values are (1) an output of the MACCS2 code, not an input into the code, (2) a mathematical technique used to provide a representative value for a set of outputs, (3) a characteristic necessitated by the rigorous statistical modeling used in the SAMA analysis, i.e. the technique is the same regardless of the plant being analyzed. Alternatively, meteorology, evacuation inputs and economic costs are data points entered into

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[11] D. Lurie & R. Moore, Applying Statistics 1-15 (1994)

the MACCS2 code, that are unique to each plant and from the plant's specific environmental setting, and can vary over time; they are not outputs. This distinction is reinforced when the meaning of parameter as it relates specifically to computer programming and modeling is considered.

The Computer Desktop Encyclopedia defines parameter as "[a]ny value passed to a program by the user or by another program in order to customize the program for a particular purpose."[12] Even Wikipediea™ describes parameter with respect to computer programming as "a special kind of variable, used in a subroutine to refer to one of the pieces of data provided as input to the subroutine."[13] In other words, a parameter is a piece of data or an object that the program or model manipulates; it is not the program or the technique employed. PW's second cited passage also does not make sense. PW asserts that it was unable to fully evaluate the Severe Accident Mitigation Alternatives ("SAMA") because it did not have access to the inputs. This cannot apply to mean consequence values, which are outputs of the MACCS2 code and are utilized to identify which, if any, mitigation measures could potentially be cost beneficial. These numbers were available in the Applicant's Environmental Report and therefore were available to PW. Thus, PW has not shown that it raised the issue of averaging cost concerns or mean consequence values in its original petition. Furthermore, it chose not to argue that it raised the issue at a later point in a timely manner under either 10 C.F.R. §2.309(c) and (f)(2). Therefore, the averaging cost concerns should be excluded from Contention 3.

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[12] Computer Desktop Encyclopedia (2010) available at http://computer.yourdictionary.com/parameter (last visited October 6, 2010)

[13] http://en.wikipedia.org/wiki/Parameter_(computer_science) (last visited October 6, 2010)

III. PW Failed to Identify Any Assertions Raising Its Dispute Regarding the Use of Mean Consequence Values Subsequent to Its Initial Petition

PW chose not to address any of the factors of 10 C.F.R. § 2.309(c) and (f)(2) in its brief. It describes the factors as irrelevant because it believes that the issue of mean consequence values was raised in its original Petition to Intervene. PW's Brief at 12–13. Because PW asserts that it raised the "averaging cost concerns" in its Petition, PW is essentially conceding that the information on the NRC's use of mean consequence values existed prior to the date when petitions to intervene were due. Therefore, PW cannot now claim that new information became available at some latter point in a proceeding, which formed a new basis for challenging the use of mean consequence values. Thus, PW should be precluded from relying on information after the date of its Petition to support a challenge to mean consequence values under 10 C.F.R. §2.309(f)(2).[14] Section 2.309(f)(2) allows a contention to be considered timely filed if it is based on information "not previously available" and that the information is "materially different than the previously available" information. 10 C.F.R. § 2.309(f)(2)(i–ii). Thus, PW's proffered evidence from subsequent filings made over a year later in opposition to the summary disposition motion is late and would necessarily need to satisfy the requirements of 10 C.F.R. § 2.309(c) governing late-filed contentions.

Under 10 C.F.R. § 2.309(c), late-filled contentions must meet the eight factors.[15] Pursuant to the previous Commission decisions, good cause is of utmost importance. *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 261 (2009). PW has not pled good cause for any of the proffered evidence raised after the original

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[14] The Staff's Brief provides a full analysis on the criteria of Section 2.309(f)(2).

[15] The Staff's Brief provides a full analysis on the late-filled criteria of Section 2.309(c).

petitions were filed. Further, PW chose not to plead or assert that any submissions made after the time for filing petitions to intervene was passed would satisfy either 10 C.F.R. § 2.309(c) and (f)(2). Thus, PW's proffered evidence from affidavits filed in support of its opposition to summary disposition are not material to whether its Petition adequately raised the issue of mean consequence values.

CONCLUSION

PW's Brief has not identified any credible evidence showing that the issue of mean consequence values was raised in its original petition or in any subsequent filings. Further, PW has not met its burden to demonstrate that the factors under 10 C.F.R. § 2.309(c) and (f)(2) have been met. Therefore, PW's proffer of evidence from pleadings subsequent to the original petition is neither relevant nor material to the issue of whether the issue was raised in the petition. Finally, PW's Petition must be evaluated under the high standards for all parties represented by counsel. PW was represented by competent counsel throughout the initial proceeding and especially during the contention admissibility stage. Therefore, the admission of the issue regarding the use of mean consequence values in the SAMA analysis should be denied.

Respectfully Submitted,

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Dated at Rockville, Maryland
this 8th of October, 2010

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S REPLY TO PILGRIM WATCH'S BRIEF " 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 8th day of October, 2010.

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