UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OR

BEFORE THE COMMISSION

In the Matter of
Entergy Corporation

Docket # 50-293-LR

Pilgrim Nuclear Power Station

License Renewal Application

June 2, 2011

COMMONWEALTH OF MASSACHUSETTS' PETITION FOR WAIVER OF 10 C.F.R. PART 51 SUBPART A, APPENDIX B OR, IN THE ALTERNATIVE, PETITION FOR RULEMAKING TO RESCIND REGULATIONS EXCLUDING CONSIDERATION OF SPENT FUEL STORAGE IMPACTS FROM LICENSE RENEWAL ENVIRONMENTAL REVIEW

I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.335(b), the Commonwealth of Massachusetts hereby petitions the Atomic Safety and Licensing Board ("ASLB") of the U.S. Nuclear Regulatory Commission (NRC) for a waiver of 10 C.F.R. § 51.71(d) and 10 C.F.R. Part 51 Subpart A, Appendix B (collectively "spent fuel pool exclusion regulations") to the extent that these regulations generically classify the environmental impacts of high-density pool storage of spent fuel as insignificant and thereby permit their exclusion from consideration in environmental impact statements (EISs) for renewal of nuclear power

plant operating licenses.[1] This Waiver Petition is supported by the Declaration and expert report of Dr. Gordon R. Thompson.[2]

Waiver of the spent fuel pool exclusion regulations is necessary in order to allow full consideration of the issues raised in the Commonwealth's new contention, also filed today, which challenges the adequacy of the environmental impact analysis and severe accident mitigation alternatives (SAMA) analysis performed by Entergy Corp. and the NRC in support of their proposal to re-license the Pilgrim nuclear power plant (NPP), in light of significant new information revealed by the Fukushima accident. Under the National Environmental Policy Act (NEPA), the NRC has a nondiscretionary duty to consider such new and significant information if there are "significant new circumstances or information relevant to the environmental concerns and bearing on the proposed action or its impacts." *Marsh v. Oregon Natural Resources Council,* 490 U.S. 360, 372 (1989); 10 C.F.R. § 51.92(a)(2). The NRC must consider new and potentially significant information "regardless of its eventual assessment of the significance of this information." *Marsh*, 490 U.S. at 385; *Silva v. Romney*, 473 F.2d 287, 292 (1st Cir. 1973)(NEPA duties are nondiscretionary).

In addition, given that the Commonwealth has complied with all NRC procedural

[1] The Commonwealth notes that earlier in the proceeding, it would have also sought a waiver of 10 C.F.R. § 51.53(c)(3)(i), which excuses license renewal applicants from the requirement to address spent fuel storage impacts in their environmental reports. Because the NRC has now superseded the Environmental Report with Supp. 29 to the 1996 Generic Environmental Impact Statement for License Renewal ("GEIS"), it appears unnecessary to waive 10 C.F.R. § 51.53(c)(3)(i) at this stage of the proceeding.

[2] Declaration of Dr. Gordon R. Thompson in Support of Commonwealth of Massachusetts Contention and Related Petitions and Motions (June 1, 2011) ("2011 Thompson Declaration"); New and Significant Information From the Fukushima Daiichi Accident in the Context of Future Operation of the Pilgrim Nuclear Power Plant (June 1, 2011) ("2011 Thompson Report").

regulations that are relevant to the submission of contentions at this stage of the licensing proceeding, the Commission should waive the spent fuel pool exclusion regulations in order to provide the Commonwealth with the hearing to which it is entitled regarding all issues material to the re-licensing of the Pilgrim NPP. 42 U.S.C.§ 2239(a)(1)(A); *Union of Concerned Scientists v. NRC,* 735 F.2d 1437 (D.C. Cir. 1984), *cert. denied*, 469 U.S. 1132 (1985).

As discussed in the contention and the supporting expert report by Dr. Thompson, there are two important respects in which significant new information yielded by the Fukushima accident shows fundamental errors or oversights in the key environmental analyses relied on by the NRC for its generic designation of spent fuel storage impacts as insignificant: NUREG-1437, the License Renewal GEIS; and the NRC's decision rejecting the Commonwealth of Massachusetts' 2006 rulemaking petition regarding spent fuel storage risks. The Attorney General of Commonwealth of Massachusetts, the Attorney General of California; Denial of Petitions for Rulemaking, 73 Fed. Reg. 46,204 (Aug. 8, 2008) (Rulemaking Denial).[3]

First, the Fukushima accident demonstrates that there is a substantial conditional probability of a pool fire during or following a reactor accident at the Pilgrim NPP, and that likelihood of a precursor reactor core melt accident at Pilgrim is substantially greater – *i.e.*, by an order of magnitude – than assumed in the environmental impact analysis and the SAMA analysis currently relied upon by the NRC and licensee to support relicensing. This relationship between a pool fire and a core melt accident is not addressed in the

[3] The conclusions of the Rulemaking Denial are carried forward in the Draft Revised License Renewal GEIS which was issued by the NRC in the summer of 2009 but has not been finalized.

License Renewal GEIS or the Rulemaking Denial. See Section IV.A, *infra*.

Second, the experience of the Fukushima accident undermines two central conclusions of the Rulemaking Denial: 1) post-9/11 mitigation measures relied upon by the NRC would permit recovery of lost water from spent fuel pools ("SFPs") to prevent the onset of fire or other accident conditions (73 Fed. Reg. at 46,208); and 2) the NRC's policy of imposing secrecy on these mitigation measures would not impair their effectiveness. *See* Rulemaking Denial, 73 Fed. Reg. at 46,207-46,208 and note 6; *cf.* 2011 Thompson Report at pp 17, 19, 20, 23; Section IV.A, *infra*.

Issuance of a waiver is required where the purpose of a regulation would not be served by its application in the unique circumstances of the licensing proceeding. *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 537 (2005). There can be no question that these circumstances are unique and site-specific because the NRC has already determined that environmental impact analyses and SAMA analyses must be conducted separately for each NPP, based on the risk analyses that are unique to each NPP. *See* 10 C.F.R. Part 51, Subpart A, Appendix B, Table B-1 and 10 C.F.R. § 51.71(d). The Commonwealth seeks integration of spent fuel pool risk issues that are specific to Pilgrim into the SAMA and related environmental analyses that are specific to Pilgrim.

The NRC has also stated that it relies on plant-specific information for its finding that the environmental impacts of spent fuel pool storage are insignificant. In particular, the NRC relies on Pilgrim-specific post-9/11 security measures, known as "B.5.b" measures, to mitigate the loss of spent fuel pool cooling. *See* 73 Fed. Reg. at 46,212; see Section II.A.7, *infra*. Such measures, such as agreements for the provision of fire trucks,

were also used – unsuccessfully – at Fukushima. Finally, the NRC has also relied on plant-specific "site evaluations," including for the Pilgrim NPP. 73 Fed. Reg. 46,208-46,209. Thus, the NRC itself has recognized that SAMA analyses and spent fuel pool accident risk analyses should be conducted on a plant-specific basis. The purpose of the spent fuel pool exclusion regulations – to make a generic finding of no significant impact for all NPPs – would not be served where the Fukushima accident has demonstrated that environmental impacts of spent fuel storage are so significant and where the insights from the Fukushima accident have such a plant-specific application.

Therefore, the Commonwealth believes that the appropriate vehicle for revisiting the conclusions that underlie the spent fuel pool exclusion regulations is a waiver, because, as discussed in ¶ 17 of the attached Thompson Declaration, many of the implications of the Fukushima accident for the Pilgrim NPP license renewal proceeding are site-specific. In the alternative, in the event that the ASLB denies the waiver petition, the Commonwealth asks the Commission to rescind the spent fuel pool exclusion regulations in a rulemaking. The choice of procedural vehicle is the NRC's. *Baltimore Gas & Elec. Co. v. Natural Resources Defense Council*, 462 U.S. 87, 100 (1983). However, the NRC's discretion extends only to that procedural choice, and not to whether the NRC will comply with NEPA.

In bringing this petition, the Commonwealth is aware that information from the Fukushima accident continues to emerge, and that at this juncture the accident may not be completely understood. Nevertheless, as discussed in Dr. Thompson's report, attached hereto, the Fukushima accident conclusively demonstrates that spent fuel pool and reactor accident risks are significantly higher than previously determined by the NRC.

Therefore, in light of the fact that a license renewal decision for the Pilgrim NPP may be imminent, the Commonwealth is filing its contention and waiver petition now, based on information that is currently available. The Commonwealth's decision to proceed now is also affected by the facts that (a) the NRC has proceeded with the issuance of license extensions for other nuclear power plants, including the Vermont Yankee NPP located ten miles from the Massachusetts border (and which has a design virtually identical to the Pilgrim NPP); and (b) the NRC Commissioners have not ruled on the Commonwealth's Petition to suspend the Pilgrim Relicensing, pending consideration by the Commission of the new and significant information arising from the Fukushima accident regarding SFP and related risks and regulatory requirements.[4]

II. FACTUAL AND PROCEDURAL BACKGROUND

The history of the NRC's proceedings for consideration of spent fuel storage impacts, including its generic proceedings and Pilgrim-specific proceedings, shows that the NRC has not previously considered the new information raised by the Commonwealth in its Contention, and that the new information significantly undermines and contradicts the NRC's previous conclusions that the environmental impacts of spent fuel storage are insignificant.

[4] Commonwealth of Massachusetts Response to Commission Order Regarding Lessons Learned from the Fukushima Daiichi Nuclear Power Station Accident, Joinder in Petition to Suspend the License Renewal Proceeding for the Pilgrim Nuclear Power Plant, and Request for Additional Relief (May 2, 2011) ("Commonwealth Response").

A. Environmental Impact Statements and Other Analyses Applicable to Spent Fuel Storage at the Pilgrim Nuclear Power Plant.

1. Waste Confidence Rulemaking

In 1990, the NRC examined the environmental impacts of storing spent fuel at reactor sites for an additional 30 years pending the opening of a final repository. Review and Final Revision of Waste Confidence Decision, 55 Fed. Reg. 38,474 (September 18, 1990). Although the NRC did not prepare an EIS in support of the rulemaking, the rulemaking notice discussed the documents on which the NRC relied for its conclusion that high-density pool storage of spent fuel posed no significant environmental risk. Citing several reports, the Commission said that it had spent "several years studying in detail the catastrophic loss of reactor spent fuel pool water possibly resulting in a fuel fire in a dry pool." 55 Fed. Reg. at 38,481.[5]

According to the Commission, "[t]he analyses reported in these studies indicate that the dominant accident sequence which contributes to risk in a spent fuel pool is gross structural failure of the pool due to seismic events." 55 Fed. Reg. at 38,481. The Commission concluded that the risk of such an event was extremely small, however, because such a severe loss of cooling water "is likely to result only from an earthquake well beyond the conservatively estimated earthquake for which reactors are designed," *i.e.* earthquakes that are "extremely rare." *Id.* This conclusion appeared to be based in part on the assumption that "a fire could occur only with a relatively sudden and

[5] These studies were: NUREG/CR-4982, Severe Accidents in Spent Fuel Pools in Support of Generic Safety Issue 82 (1987); NUREG/CR-5176, Seismic Failure and Cask Drop Analysis of the Spent Fuel Pools at Two Representative Nuclear Power Plants (1989); NUREG/CR-5281, Value/Impact Analysis of Accident Preventative and Mitigative Options for Spent Fuel Pools (1989); NUREG-1353, Regulatory Analysis for the Resolution of Generic Issue 82, Beyond Design-Basis Accidents in Spent Fuel Pools (1989).

substantial loss of coolant." *Id.* The NRC made no mention, however, of a 1979 report by Sandia National Laboratories which had found that partial loss of water from a pool posed a more serious risk than complete and instantaneous drainage. NUREG/CR-0649, Spent Fuel Heatup Following Loss of Water During Storage (March 1979).

Moreover, the Commission failed to note the observation in NUREG-1353 that: "some laboratory studies have provided evidence of the possibility of fire propagation between assemblies in an air cooled environment." NUREG-1353 at ES-1. Nor did the NRC respond to the recommendation of NUREG-1353 that the NRC undertake a "re-examination" of the risks of spent fuel pool accidents. NUREG-1353 at ES-1.

Based on its conclusion that the environmental impacts of high-density spent fuel pool storage are small, the NRC promulgated 10 C.F.R. § 51.23, which excuses licensees and the NRC from addressing the environmental impacts of spent fuel pool storage after the term of a reactor operating license has expired. 10 C.F.R. § 51.23(b).

2. 1996 License Renewal GEIS

In 1996, the NRC issued the License Renewal GEIS, in which it asserted that the environmental impacts of spent fuel storage can be determined generically and are small. License Renewal GEIS at 6-83. The GEIS contained no new analysis of the potential for spent fuel pool accidents, other than the analyses that had been cited in the 1990 Waste Confidence rulemaking. *Id.*

Based on its conclusion that spent fuel storage impacts are small, the NRC promulgated regulations which classified spent fuel pool accidents as "Category 1" (generic) impacts which the Commission concluded are insignificant. 10 C.F.R. Part 51, Subpart A, Appendix B. As stated in Table B-1 of Appendix B:

> The expected increase in the volume of spent fuel from an additional 20 years of operation can be safely accommodated on site with small environmental effects through dry or pool storage at all plants if a permanent repository or monitored retrievable storage is not available.

The NRC also promulgated a regulation which excused license renewal applicants from addressing spent fuel storage impacts in their environmental reports. 10 C.F.R. § 51.53(c)(2).

The NRC also identified a category of impacts designated as "Category 2," for which the NRC found that impacts and alternatives cannot be fully addressed in the Generic EIS and therefore must be addressed in the site-specific environmental report ("ER") and environmental impact statement ("EIS"). *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-14, 55 NRC 278, 290 (2002); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 12 (2001). Category 2 impacts include severe reactor core accidents.

The License Renewal GEIS does not include any discussion of how deliberate and malicious attacks on nuclear power plants may increase the likelihood or consequences of severe accidents. The NRC declines to address the topic on the grounds that (a) NRC security regulations provide reasonable assurance that the risk from sabotage is small; (b) although their probability is not quantifiable, acts of sabotage are "not reasonably expected"; and (c) even if such an event were to occur, resultant core damage and radiological releases would be "no worse than those expected from internally initiated events." License Renewal GEIS at 5-18.

3. Commonwealth Contention and Alternative Petition for Rulemaking that SFP Impacts are Significant

In 2006, based primarily upon the new and significant information presented in NUREG-1738 and a report issued by the National Academy of Sciences (NAS Report), the Commonwealth submitted a contention to the Pilgrim ASLB, and subsequently an alternative rulemaking petition, requesting the NRC to revisit and change the 1996 GEIS's conclusion that spent fuel pool (SFP) storage impacts are insignificant (2006 Petition).[6] The Commonwealth's 2006 Petition focused upon the increased risks of SFP accidents, including accident risks and scenarios similar to those now unfolding at Fukushima:

> Significant new information now firmly establishes that (a) if the water level in a fuel storage pool drops to the point where the tops of the fuel assemblies are uncovered, the fuel will burn, (b) the fuel will burn regardless of its age, (c) the fire will propagate to other assemblies in the pool, and (c) the fire may be catastrophic. *See* Thompson Report and Beyea Report. This new information has also been confirmed by the NRC Staff in NUREG-1738, *Final Technical Study of Spent Fuel Pool Accident Risk and Decommissioning Nuclear Power Plants* (January 2001) ("NUREG-1738"), and by the National Academies of Sciences. *See* NAS Committee on the Safety and Security of Commercial Spent Nuclear Fuel Storage, *Safety and Security of Commercial Spent Nuclear Fuel Storage* at 53-54 (The National Academies Press: 2006) ("NAS Report").
> Moreover, significant new information, including the attacks of September 11, 2001 and the NRC's response to those attacks, shows that the environmental impacts of intentional destructive acts against the Pilgrim fuel pool are reasonably foreseeable. Taken together, the potential for severe pool accidents caused by intentional malicious acts and by equipment failures and natural disasters such as earthquakes is not only reasonably foreseeable, but is likely enough to qualify as a "design-basis accident," *i.e.,* an accident that must be designed against under

[6] Massachusetts Attorney General's Request for a Hearing and Petition for Leave to Intervene with Respect to Entergy Nuclear Operation 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. (ADAMS No. ML061640065). ("Pilgrim Contention"). *See also* Commonwealth Response and Attachment 1, thereto.

> NRC safety regulations. Thompson Report, §§ 6,7,9The ER [Environmental Report] also fails to satisfy 10 C.F.R. § 51.53(c)(3)(iii) because it does not consider reasonable alternatives for avoiding or reducing the environmental impacts of a severe spent fuel accident, *i.e.,* SAMAs. Alternatives that should be considered include re-racking the fuel pool with low-density fuel storage racks and transferring a portion of the fuel to dry storage.[7]

4. The NRC denies the Commonwealth's Rulemaking Petition

A majority of the Commissioners denied the Commonwealth's Rulemaking Petition, concluding that the NRC's generic findings in the 1996 License Renewal GEIS "remain valid." Rulemaking Denial, 73 Fed. Reg. at 46,206, 46,211-12.[8] In reaching this conclusion, the Commission relied upon studies by Sandia National Laboratories ("Sandia Studies") that the NRC declined to make public, 73 Fed. Reg. at 46,207 n.6, and upon its conclusion that the risks of SFP accidents presented "very low" risks. *Id.* at 46,207.

However, in denying the rulemaking petition, the NRC acknowledged that the technical basis for its generic findings in the 1996 License Renewal GEIS had changed. For instance, rather than continuing to believe that a total loss of water is the most severe accident case, the NRC affirmed NUREG-1738's conclusion that a partial loss of water is more severe:

> Air cooling is less effective under the special, limited condition where the water level in the SFP [spent fuel pool] drops to a point where water and steam cooling is not sufficient to prevent the fuel from overheating and initiating a zirconium fire, but the water level is high enough to block the full natural circulation of air flow through the assemblies.

73 Fed. Reg. at 46,208.

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[7] *Id.* at 22.

[8] Commissioner Jaczko would have partially granted the petition by addressing the Attorney General's concerns in the anticipated rulemaking for revision of the 1996 License Renewal GEIS. 73 Fed. Reg. at 46,212-13.

The NRC also found that spent fuel pool fire accident scenarios were conducive to mitigation because there "may be" a significant period of time between an initiating event and fuel uncovery. *Id.* The NRC based this conclusion on plant-specific "studies" that were conducted at every NPP. *Id.* Finally, the NRC concluded that secret new security measures, imposed on all NPP spent fuel pools after the September 11, 2001, attacks, would effectively mitigate the potential for pool fires.[9]

5. Judicial Review

After the NRC had dismissed the Commonwealth's contention, and before issuance of the Rulemaking Denial, the Commonwealth filed a judicial appeal of the NRC's decision to dismiss the contention without resolving the rulemaking petition. The U.S. Court of Appeals for the First Circuit denied the Commonwealth's appeal for failure to first exhaust administrative remedies. *Commonwealth of Massachusetts v. U.S. Nuclear Regulatory Commission*, 522 F.3d 115 (1st Cir. 2008). In doing so, the First Circuit observed that:

> NEPA does impose an obligation on the NRC to consider environmental impacts of the Pilgrim and Vermont Yankee license renewal before issuing a final decision…what fetters the agency's decision-making process and ensures ultimate compliance with NEPA is judicial review.

Id. at 130.

However, following denial of the Commonwealth's Rulemaking Petition, the U.S. Court of Appeals for the Second Circuit affirmed the merits in the NRC's decision in *New York v. NRC,* 589 F.3d 551 (2nd Cir. 2009). Nevertheless, the court did not apply

[9] "[T]he Sandia studies indicated …there is a significant amount of time between the spent fuel being uncovered and the possible onset of a zirconium fire, thereby providing a substantial opportunity for both operator and system event mitigation." *Id.* at 46,208; see also FN 6.

the test of reasonableness generally applied to NEPA decisions. *See, e.g., United States v. Coalition for Buzzards Bay,* __F.3d __. 2011 WL 1844221 (May 17, 2011)(1st Cir. 2011) at *10-11(failure to take hard look at environmental consequences raised in public comment prior to decision making is reversible error); *see also Warm Springs Dam Task Force v. Gribble,* 621 F.2d 1017, 1024 (9th Cir. 1980). Instead, the Court applied the standard for review of decisions denying rulemaking petitions, which it summarized as "so high as to be 'akin to non-reviewability.'" 589 F.3d at 554 (*quoting Cellnet Comm'n, Inc. v. FCC,* 965 F.2d 1106, 1111 (D.C. Cir. 1992)).

6. 2009 Draft Revised License Renewal GEIS

In the summer of 2009, the NRC issued the 2009 Draft Revised License Renewal GEIS, in which it updated the 1996 License Renewal GEIS by addressing additional spent fuel pool risk analyses performed since 1996. NUREG-1437, Draft Report for Comment, Vol. 2, Appendix E*,* § E.3.7 at E-32 – E-37 (July 2009). While the Draft Revised License Renewal GEIS reaches the same conclusion as the 1996 License Renewal GEIS that spent fuel storage environmental impacts are insignificant, it substantially alters the technical basis for that conclusion. The "key document" on which the NRC now relies for its conclusion that spent fuel pool storage risks are small is NUREG-1738, which for the first time acknowledged the potential for a spent fuel pool fire despite the age of the fuel. *Id.* at E-33 – E-34.

Consistent with the Rulemaking Denial, the Draft Revised License Renewal GEIS also amends NUREG-1738 by stating that recent and "more rigorous accident progression analyses," "mitigation enhancements," and "NRC site evaluations of every SFP in the United States" have led it to conclude that "the risk of an SFP zirconium fire

initiation is expected to be less than reported in NUREG-1738 . . . and previous studies." *Id.* at E-36. However, the Draft Revised License Renewal GEIS does not represent that any of these accident progression analyses, mitigation enhancements, or NRC site evaluations examined the relationship between a spent fuel pool fire and a Fukushima-like accident. Indeed, the Draft Revised License Renewal GEIS provides no information whatsoever regarding any site-specific analysis for Pilgrim or any other reactor.

7. Public Release of Previously Secret Information Regarding Pilgrim Mitigative Measures

The NRC has publicly released at least one document discussing the post-9/11 mitigation measures upon which the NRC has relied for its conclusion that spent fuel storage environmental impacts at the Pilgrim NPP are insignificant: an August 23, 2007, letter from the NRC to Michael A. Balduzzi, re: Pilgrim Nuclear Power Station – Conforming License Amendment to Incorporate the Mitigation Strategies Required by Section B.5.b of Commission Order EA-02-026 and the Radiological Protection Mitigation Strategies Required by Commission Order EA-06-137 (TAC No. MD4555) (NRC ADAMS Accession No. ML072340008) ("8/23/07 NRC Letter"). The Safety Evaluation (Attachment, thereto) reveals that the NRC did not require the Pilgrim NPP licensee to make any major changes to the Pilgrim NPP, but instead to use "existing or readily available resources" and to identify "potential practicable areas for the use of beyond-readily-available resources." Attachment at 2-3.

According to the 8/23/07 NRC Letter, the Nuclear Energy Institute ("NEI"), an industry trade group, subsequently proposed guidance for "high level functional mitigating strategies for a spectrum of potential scenarios involving spent fuel pools." Attachment at 4. The NRC accepted the guidance and "placed significant weight on

portions of the proposal that rely on industry commitments to provide beyond-readily-available resources not previously available." *Id.* In accepting the NEI recommendations, however, the NRC stated that only the "readily available" mitigation measures would be required, and that beyond-readily-available measures apparently would be voluntary. *Id.* Nevertheless, the NRC proposed to rely on the licensee's commitment to fulfill the additional beyond-readily-available measures "will become part of the licensing basis of the plant." *Id.* at 5.

The 8/23/07 NRC Letter includes an appendix containing Table 1, which provides a list of mitigation measures. The language in Table 1 is extremely vague, but it indicates that Entergy may rely for mitigation of spent fuel pool fire impacts on such outside sources as "[a]irlifted resources;" fire fighting resources from "industrial facilities, large municipal fire departments, airports, and military bases;" and a "portable generator and transformer."

On May 9, 2011, the NRC also publicly released a previously-withheld NEI guidance document, NEI-06-12, B.5.b Phase 2 & 3 Submittal Guideline, rev. 2 (December 2006) (NEI-06-12) (NRC ADAMS Accession No. ML070090060), which summarizes the industry guidance on which the 8/23/07 NRC Letter relies. NEI-06-12 includes Extensive Damage Mitigation Guidelines ("EDMGs") which are intended to respond to potential fires and explosions at NPPs. NEI calls for a capability to spray at least 200 gpm of water into NPP pools, including the Pilgrim pool. *Id.* at 12. To accommodate the problem that some pools are high up in the reactor building, NEI calls for the spray capability to include:

> Capability to lift/locate the monitor nozzle such that the spray can be externally directed into the spent fuel pool (e.g., from an adjacent building roof, fire truck

> extension ladder). The lifting capability (e.g., crane or fire truck with extension ladder) may be located off-site as long as the site has confidence (e.g., through an MOU) that it will be available for use on-site within the required timeframe (i.e., 2 hours or 5 hours). This may require a modification to the lifting device to allow the monitor nozzle to be affixed.

Id. at 13. Presumably, therefore, the Pilgrim licensee has made an arrangement to bring a truck-mounted crane or a ladder fire truck to the site at short notice. *See* Thompson Report at 19-20.[10]

B. Fukushima Accident and its Implications for Pilgrim Spent Fuel Pool Accident Risks.

In March 2011, an earthquake and tsunami initiated an accident involving four NPPs on the Fukushima Daiichi (Number 1) site in Japan. That accident is ongoing. Publicly available information about the accident in English language – and probably in Japanese as well – is incomplete and inconsistent at this time. Nevertheless, information has become available that is new and significant in the context of the Pilgrim NPP license renewal proceeding. Additional information of this type is likely to become available over the coming months.

In his report, Dr. Thompson has identified six areas in which information that is presently available regarding the Fukushima accident supports either conclusive (established) or provisional (likely) findings that challenge the adequacy of the existing SAMA analysis for Pilgrim NPP, including the analysis related to spent fuel pool risks.

[10] As referenced in this Section, the NRC has disclosed certain information regarding mitigation measures relevant to Pilgrim, although much is limited or vague. The Commonwealth, as a primary emergency responder and with a responsibility for public safety, seeks greater access to information regarding mitigation measures or analyses upon which the NRC relies to support its conclusion that SFP impacts at Pilgrim are insignificant. Beyond conclusory statements that mitigation measures were in place, and secret (Sandia) studies done, the NRC provided virtually no information on these issues in its 2008 Rulemaking Denial of the Commonwealth's SFP-related petition.

His conclusions form the basis for the Commonwealth's contention that has been submitted today in the Pilgrim license renewal proceeding. His findings are:

- Based on cumulative direct experience of NPP accidents including the Fukushima accident, the Pilgrim licensee under-estimates reactor core damage frequency by an order of magnitude. Thus, the licensee's SAMA analysis for Pilgrim should be re-done with a baseline CDF that is increased by an order of magnitude. In light of experience at Fukushima, the re-done SAMA analysis should encompass, among other SAMA options, measures to accommodate: (i) structural damage; and (ii) station blackout, loss of service water, and/or loss of fresh water supply, occurring for multiple days. Also, in view of the high risk of a radioactive release at Pilgrim, any accident-mitigation measure or SAMA that is credited for the future licensed operation of the Pilgrim NPP should be incorporated in the plant's design basis. That implication – designated here as General Implication #1 – holds across all six issues addressed in this report. [11]
- Based on operators' experience during the Fukushima accident and a review of the extensive damage mitigation guidelines – which were prepared by NEI – that were publicly disclosed pursuant to the Fukushima accident, the operators' capability to mitigate an accident at the Pilgrim NPP can be severely degraded in the accident environment. Moreover, NEI's newly-disclosed EDMGs are clearly inadequate to address the range of core-damage and spent-fuel-damage events that could occur at Pilgrim. Finally, there is a substantial conditional probability of a

[11] This is a conclusive finding.

spent-fuel-pool fire during a reactor accident at Pilgrim. Each of these findings supports General Implication #1.[12]

- Based on operators' experience during the Fukushima accident and a review of the EDMGs that were publicly disclosed pursuant to the Fukushima accident, NRC's excessive secrecy degrades the licensee's capability to mitigate an accident at the Pilgrim NPP. This finding supports General Implication #1. Also, this finding shows that: (i) NRC secrecy regarding the general characteristics of accident mitigation measures and the phenomena associated with spent-fuel-pool fires should cease; and (ii) NRC should sponsor open research on spent-fuel-pool fires and their mitigation. [13]
- Based on the occurrence of hydrogen explosions at Fukushima NPPs and on the reported experience of Fukushima operators with hydrogen control systems, hydrogen explosions similar to those experienced at Fukushima could occur at the Pilgrim NPP. This finding shows that: (i) containment venting and other hydrogen control systems at Pilgrim should be substantially upgraded, and should use passive mechanisms; and (ii) all hydrogen control measures at Pilgrim should be incorporated in the plant's design basis. The latter implication is equivalent to General Implication #1 in regard to hydrogen control. [14]
- Based on direct experience at Fukushima regarding damage to spent-fuel pools and their support systems (for cooling, makeup, etc.), there is a substantial, conditional probability of a spent-fuel-pool fire during a reactor accident at

[12] These are conclusive findings.
[13] These are conclusive findings.
[14] This is a provisional finding.

Pilgrim. The same finding, reached through a different approach, is set forth in conclusion C5, above. This doubly-supported finding shows that measures to prevent a pool fire should be considered in a re-done SAMA analysis. In light of conclusion C4, above, and conclusion C12 (and supporting information) in the Thompson 2006 report, SAMA methodology shows that the Pilgrim pool should be re-equipped with low-density, open-frame racks. Separate from SAMA analysis, prudent engineering principles also indicate that the Pilgrim pool should be re-equipped with low-density, open-frame racks. Finally, the finding set forth here supports General Implication #1. [15]

- Based on the reported release of radioactive material to the atmosphere from NPPs at Fukushima, filtered venting of the Pilgrim reactor containment could substantially reduce the atmospheric release of radioactive material from an accident at the Pilgrim NPP. This finding shows that filtered venting of the containment should be considered in a re-done SAMA analysis for Pilgrim. Separate from SAMA analysis, prudent engineering principles indicate that the Pilgrim plant should be equipped with a filtered venting system that uses passive mechanisms. Also, any measures related to filtered venting should be consistent with General Implication #1. [16]

Thompson Report, Section VI.

[15] This is a provisional finding.
[16] This is a provisional finding.

III. STATUTORY AND REGULATORY FRAMEWORK

A. NEPA.

1. General requirements of NEPA

NEPA is the "basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). Its fundamental purpose is to "help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment." 10 C.F.R. § 1500.1(c). NEPA requires federal agencies to examine the environmental consequences of their actions *before* taking those actions, in order to ensure "that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). An agency's obligations under NEPA are "not discretionary, but are specifically mandated by Congress, and are to be reflected in the procedural process by which agencies render decisions." *Silva v. Romney,* 473 F.2d 287, 292 (1st Cir. 1973).

The primary method by which NEPA ensures that its mandate is met is the "action-forcing" requirement for preparation of an EIS, which assesses the environmental impacts of the proposed action and weighs the costs and benefits of alternative actions. *Robertson,* 490 U.S. at 350-51.

2. Duty to consider reasonably foreseeable impacts

The environmental impacts that must be considered in an EIS include "reasonably foreseeable" impacts which have "catastrophic consequences, even if their probability of occurrence is low." 40 C.F.R. § 1502.22(b)(4). However, environmental impacts that are "remote and speculative" need not be considered. *Limerick Ecology Action v. NRC,*

869 F.2d 719, 745 (3rd Cir. 1989) (citing *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.,* 435 U.S. 519, 551 (1978)).[17]

In the spectrum of accidents that might be considered in an EIS for a nuclear power plant license, there is no dispute that "design-basis accidents," *i.e.,* accidents against which a nuclear plant must be designed under the AEA's requirement to protect public health and safety against "undue risk," are reasonably foreseeable and therefore must be considered. Thus, almost since the passage of NEPA, the NRC has included consideration of the environmental impacts of design-basis accidents in its EISs. *Limerick Ecology Action,* 869 F.2d at 725-26, *citing* 36 Fed. Reg. 22,851 (1971).

In 1980, following the Three Mile Island accident, the Commission also began to consider the environmental impacts of severe or "beyond design-basis" accidents in its EISs. *Id.* (citing Statement of Interim Policy, Nuclear Power Plant Accident Considerations Under the National Environmental Policy Act of 1969, 45 Fed. Reg. 40,101 (1980)). In contested cases, the Commission has required intervenors to address the quantitative probability of severe accidents for which they seek consideration in an EIS. *See, e.g., Carolina Power & Light Co.,* 53 NRC at 387 ("Harris"). While the Commission has not established a threshold for the level of accident probability

[17] In determining whether a particular accident scenario is "reasonably foreseeable," the NRC has held that low probability in quantitative terms is "key." *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-90-7, 32 NRC 129, 131 (1990). The NRC has not fixed a line of demarcation between probability that is considered "reasonably foreseeable" and probability that is considered "remote and speculative." *Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 388 n.8 (2001). However, the Commission has refused to rule out an accident probability of 10^{-4} per year as remote and speculative. *Id.* (citing *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-90-4, 31 NRC 333, 335 (1990)).

considered "reasonably foreseeable," in *Harris* the Commission affirmed a decision by the ASLB approving the NRC Staff's probability estimate of 2.0×10^{-7} for a particular accident scenario and ruling that the accident was "remote and speculative." *Id.* at 387-88.

3. NRC requirement to consider alternatives in site-specific ER and EIS

For any environmental impacts that do not fall into Category 1, a license renewal applicant must consider "alternatives for reducing adverse impacts," including severe accidents. 10 C.F.R. § 51.53(c)(3)(iii), *citing* 10 C.F.R. § 51.45(c). This requirement also applies to the draft and final EIS for each individual license renewal application. 10 C.F.R. § 51.71(d), 51.91(a)(1)(ii).

As the Commission explained in the preamble to the final rule for environmental review of license renewal applications, the alternatives that must be considered include severe accident mitigation alternatives ("SAMAs"). Final Rule, Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467, 28,480-81 (June 5, 1996). This requirement is:

> based on the Commission's NEPA regulations that require a review of severe [accident] mitigation alternatives in its environmental impact statements (EISs) and supplements to EISs, as well as a previous court decision that required review of severe mitigation alternatives (referred to as SAMDAs) at the operating license stage. *See*, *Limerick Ecology Action v. NRC*, 869 F.2d 719 (3d Cir. 1989).

61 Fed. Reg. at 28,480. In addition, the Commission noted that while each licensee was in the process of performing an individual plant examination ("IPE") to "look for plant vulnerabilities to internally initiated events" and a separate IPE "for externally initiated events ("IPEEE")," the program had not been completed in time to include the results in

an EIS or supplemental EIS. *Id.* Thus, the ER and EIS for each individual license renewal application must include consideration of SAMAs. *Id.* at 28,481.

4. Continuing duty to consider new information

The completion of an EIS for a proposed action does not end an agency's responsibility to weigh the environmental impacts of a proposed action. *Marsh,* 490 U.S. at 371-72. As the Supreme Court recognized in *Marsh,* it would be incongruous with NEPA's "action-forcing" purpose to allow an agency to put on "blinders to adverse environmental effects," just because the EIS has been completed. *Id.* Accordingly, up until the point when the agency is ready to take the proposed action, it must supplement the EIS if there is new information showing that the remaining federal action will affect the quality of the human environment "in a significant manner or to a significant extent not already considered." 490 U.S. at 374. "When new information comes to light the agency must consider it, evaluate it, and make a reasoned determination whether it is of such significance as to require implementation of formal NEPA filing procedures." *Warm Springs Dam Task* Force, 621 F.2d at 1024; *see also Friends of the Clearwater v. Dombeck,* 222 F.3d 552, 558 (9th Cir. 2000) (finding "no evidence in the record" that Forest Service had considered new information bearing on sufficiency of programmatic EIS to support individual timber sale). Thus, NRC regulation 10 C.F.R. § 51.92(a)(2) requires that the Commission must supplement an EIS where there are "new and significant circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts."

5. Generic environmental impact statements and Supplementation

An agency may rely on a generic EIS to evaluate environmental impacts that are common to more than one federal action. *Baltimore Gas & Elec. Co.,* 462 U.S. at 100-01. Thus, for renewal of nuclear reactor licenses, NRC regulations allow both applicants and the agency to rely on the License Renewal GEIS for an analysis of issues that are common to all reactors. These issues, including spent fuel storage impacts, are designated as "Category 1" in 10 C.F.R. Part 51, Subpart A, Appendix B.

Importantly, however, reliance on the License Renewal GEIS for analysis of Category 1 impacts is only permitted "absent new and significant information." Final Rule, Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467, 28,483 (June 5, 1996). The NRC's NEPA regulations for license renewal also contain numerous procedural mechanisms designed to ensure that new and significant information is taken into account in each individual license renewal decision, such as the requirement for a Supplemental EIS instead of an Environmental Assessment and the requirement that:

> [i]f a commenter [on the draft Supplemental EIS] provides new, site specific information which demonstrates that the analysis of an impact codified in the rule is incorrect with respect to the particular plant, the NRC staff will seek Commission approval to waive the application of the rule with respect to that analysis in that specific renewal proceeding. The supplemental EIS would reflect the corrected analysis as appropriate.

Id., 61 Fed. Reg. at 28,470.

6. NRC's procedures for preparation of ER and EIS

NRC's NEPA procedures require the NRC to prepare an EIS for any major licensing action significantly affecting the quality of the human environment. 10 C.F.R.

§§ 51.71, 51.91. Before the EIS is prepared, however, the NRC's regulations require that the license applicant must prepare what amounts to a first draft of the EIS, *i.e.,* the environmental report ("ER"). 10 C.F.R. § 51.53(c)(1), *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1049 (1983) (noting that "as a practical matter, much of the information in an Applicant's ER is used in the [Draft EIS]"). The ER generally must address all the same impacts, alternatives, and other environmental issues that will be addressed later in the NRC's EIS. *Compare* 10 C.F.R. § 51.53(c)(2) with 10 C.F.R. § 51.71.

B. NRC Regulations for Regulatory Waivers.

NRC regulations and case law governing waiver petitions do not explicitly address NEPA issues, but they may be interpreted consistently with 10 C.F.R. § 51.92(a)(1) and *Marsh*. *See also Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-10-15, __ NRC __, slip op. at 42-43 (August 4, 2010) (finding that waiver of spent fuel pool-related regulations was justified and referring waiver petition to the Commission). The applicable regulation, 10 C.F.R. § 2.335(b), provides that the "sole ground for a petition of waiver or exception" to NRC regulations is that "special circumstances with respect to the subject matter of the particular proceeding are such that the application for the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted." In the context of a NEPA analysis, the question raised by § 2.335(b) of whether application of a regulation would "serve the purposes for which the rule or regulation was adopted" can be addressed by examining the continued viability of the environmental analysis on

which the regulation is based. The "special circumstances" test is also consistent with the "new information or changed circumstances" standard of 10 C.F.R. § 51.92(a)(2).

In *Dominion,* CLI-05-24, which involved a request for a waiver of the NRC's emergency planning regulations, the Commission broke down the requirements of § 2.335(b) into the following four-fold showing:

> That (i) the rule's strict application "would not serve the purposes for which [it] was adopted"; (ii) the movant has alleged "special circumstances" that were "not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived"; (iii) those circumstances are "unique" to the facility rather than "common to a large class of facilities"; and (iv) a waiver of the regulation is necessary to reach a "significant safety problem."[18]

Consistent with NEPA, the *Millstone* test can be applied to whether special environmental circumstances that are significant to the outcome of a NEPA analysis were considered in an earlier EIS or EA for the proposed action. *See also Pacific Gas and Electric Co.,* LBP-10-15, slip op. at 42.

IV. ARGUMENT

A. The Fukushima Accident Raises New and Significant Information That Must be Considered in a Supplemental EIS.

As discussed above in Section III.A.1, the NRC's duty to consider new and significant information bearing on the outcome of its environmental analysis of a proposed action is non-discretionary. *Silva,* 473 F.2d at 292. It is not necessary for the Commonwealth to prove, in its contention or this waiver petition, that the new and

[18] 62 NRC at 560 (quoting 10 C.F.R. § 2.335(b) and citing *Public Service Company of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-89-20, 30 NRC 231, 235 (1989); *Public Service Company of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-88-10, 28 NRC 573, 597 (1988), *reconsid'n denied,* CLI-89-3, 29 NRC 234 & CLI-89-7, 29 NRC 395 (1989); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 239 (1998), *reconsid'n granted in part on other grounds,* LBP-98-10, 47 NRC 288 (1998), *aff'd,* CLI-98-13, 48 NRC 26 (1998)).

significant information would, as a matter of certainty, change the outcome of the environmental analysis; the Commonwealth need only show that -- "regardless of NRC's eventual assessment of the significance of this information" (*Marsh*, 490 U.S. at 385) -- there are "significant new circumstances or information relevant to the environmental concerns and bearing on the proposed action or its impacts."[19]

Here, as demonstrated in the Commonwealth's contention and the supporting Thompson 2011 Report, and consistent with *Marsh*, new and significant information revealed by the Fukushima accident shows fundamental errors or oversights in the key environmental analyses relied on by the NRC for its generic designation of spent fuel storage impacts as insignificant: the License Renewal GEIS and the Rulemaking Denial. First, there is a substantial conditional probability of a pool fire during or following a reactor accident at the Pilgrim NPP. The probability of a pool fire is also increased by the fact that the likelihood of a precursor reactor core melt accident at Pilgrim is substantially greater – *i.e.*, by an order of magnitude – than assumed in the SAMA analysis. This relationship between a pool fire and a core melt accident is not addressed in the License Renewal GEIS or the Rulemaking Denial. Thompson 2011 Report at 17.

Second, the experience of the Fukushima accident fatally undermines two central conclusions of the Rulemaking Denial. While the Rulemaking Denial concluded that there would be a substantial opportunity to refill spent fuel pools when they lose water, 73 Fed. Reg. at 46,208, 46,212, the Fukushima accident showed that a substantial period

[19] See Commonwealth of Massachusetts Reply to Entergy's Answer Opposing Commonwealth's Joinder in Petition to suspend the License Renewal Proceeding for the Pilgrim Nuclear Power Plant and Request for Additional Relief (May 19, 2011) at 2 – 3 *quoting Marsh v. Oregon Natural Resources Council,* 490 U.S. at 372, 385 (1989), and other cases cited.

of time may pass before water in fuel pools is restored. Moreover, the Fukushima accident dramatically illustrates the ineffectiveness of mitigative measures such as fire trucks, which were relied on in the Rulemaking Decision to affirm the insignificance of spent fuel pool storage impacts. See Section II.7, *supra*. The unreliability of these so-called "B.5.b" measures is compounded by the secrecy under which they were imposed, shielding them from criticisms which would have pointed out their deficiencies. By shrouding such measures in secrecy, the NRC also raises the risk that first-responders from the surrounding community, who may be called upon to assist in the implementation of B.5.b measures, will not have sufficient understanding of them to implement them effectively. *See* Thompson 2011 Report at 21-23.

B. The Issuance of a Waiver is Necessary to Ensure Compliance With The Hearing Requirement of the Atomic Energy Act.

Given that the Commonwealth has complied with all NRC procedural regulations that are relevant to the submission of contentions at this stage of the licensing proceeding, the Commission should waive the spent fuel pool exclusion regulations in order to provide the Commonwealth with the hearing to which it is entitled under the Atomic Energy Act (AEA) regarding the SAMA and SFP issues raised in its Contention concerning the re-licensing of the Pilgrim NPP. Section 189a of the AEA requires the NRC to provide interested members of the public with an opportunity for a hearing on any decision regarding the issuance or amendment of a nuclear facility license. 42 U.S.C. § 2239(a)(1)(A). The NRC has indicated that a hearing should be granted in license renewal proceedings because renewal of an operating license "is essentially the granting of a license." Proposed Rule, Nuclear Power Plant License Renewal, 55 Fed. Reg. 29,043, 29,052 (July 17, 1990). The scope of issues on which a petitioner may request a

hearing includes all issues that are material to the NRC's licensing decision. *Union of Concerned Scientists v. NRC*, 735 F.2d 1437, 1439 (D.C. Cir.1984), *cert.denied*, 469 U.S. 1132 (1985).

Because the NRC's regulatory requirements involving the analyses of SAMAs, SFPs, and related environmental impacts are material to a decision by the NRC whether to relicense the Pilgrim plant, the Commonwealth is entitled to a hearing on its contention which challenges the licensee's compliance with these requirements and demonstrates "a genuine dispute exists with the applicant/licensee on a material issue of law or fact." 10 C.F.R. § 2.309(f)(1)(vi). Contentions that seek compliance with NEPA must be based on the applicant's Environmental Report (ER). 10 C.F.R. § 2.309(f)(2). Although the NRC has an independent obligation to "evaluate and be responsible for the reliability" of the information. 10 C.F.R. § 51.70(b).

Although NEPA permits the NRC to select either a rulemaking process, when the issues raised are generic, or an adjudicatory hearing when site specific, the NRC must provide the Commonwealth with a process that satisfies its hearing right under the AEA. *See Kelley v. Selin*, 42 F.3d 1501, 1510-11 (6th Cir. 1995); Commonwealth Response at 9 (*quoting Baltimore Gas and Elec. Co.*, 462 U.S. at 100.). And because the NRC itself treats SAMA analysis as a site specific requirement for relicensing, the NRC should grant the Commonwealth an adjudicatory hearing on its Contention, and waive its generic finding regarding SFP impacts as a Category 1 issue, because the environmental risks posed by the Pilgrim spent fuel pools are inextricably linked to the environmental risks of a core melt accident and thereby to the NRC's SAMA analysis for Pilgrim.

C. The Commonwealth Meets the Standard for a Waiver in 10 C.F.R. § 2.335.

Issuance of a waiver is justified because the Commission has already decided that the environmental analysis of core melt accident risks and the SAMA analysis for NPP license renewal must be conducted on a plant-specific basis, and because the newly identified spent fuel storage risks discussed in Dr. Thompson's report are integrally related to the core melt accident risks that are already discussed in the existing SAMA analysis. Furthermore, the mitigation measures that the NRC relies on to mitigate spent fuel storage risks have been separately devised and reviewed for the Pilgrim NPP and are not generic. *See* Thompson Declaration, ¶ 17. As discussed in Dr. Thompson's report, the Fukushima accident has raised significant questions about the effectiveness of these mitigation measures. Thus, it is necessary and appropriate for the Commonwealth to seek a plant-specific waiver of the spent fuel pool exclusion regulations.

D. In the Alternative, if the ASLB Determines that a Waiver is Not Justified, the Secretary Should Rescind the Spent Fuel Exclusion Regulations on a Generic Basis.

In the alternative, in the event that the ASLB rejects the Commonwealth's Waiver Petition, pursuant to 10 C.F.R. § 2.802(a), the Commonwealth asks the NRC to rescind the spent fuel pool exclusion regulations across the board, in a rulemaking. The choice of procedural vehicle is the NRC's. Commonwealth Response at 9 (*quoting Baltimore Gas and Elec. Co.*, 462 U.S. at 100.). However, the NRC's discretion extends only to that procedural choice, and not to whether it will comply with NEPA.

V. CONCLUSION

For the foregoing reasons, the ASLB should hold that the Commonwealth has made a *prima facie* case that a waiver is justified and refer this petition to the

Commission. In the alternative, the Secretary should commence a proceeding to rescind the spent fuel pool exclusion regulations.

Respectfully submitted,

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Certificate of Counsel
On June 1, 2011, the Commonwealth notified all parties of record of its intent to make this filing. The NRC Staff has advised that it will object; no other party has responded.