

August 18, 2010

Annette L. Vietti-Cook,
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Attention: Rulemakings and Adjudications staff

**Petition for Rulemaking Pursuant to 10 CFR § 2.802;
Seeking to Amend 10 CFR § 54.17 (c)**

Madam Secretary,

I. Introduction - This is a petition for rulemaking pursuant to 10 CFR § 2.802; seeking to amend 10 CFR § 54.17 (c) and brought by the below listed and undersigned organizations and individuals.

- (1) Earth Day Commitment d/b/a Friends of the Coast- Opposing Nuclear Pollution (hereinafter “ Friends of the Coast”) through its Executive Director, Raymond Shadis. Friends of the Coast has been incorporated as a non-profit, for the public good, corporation in the State of Maine since 1995. Friends of the Coast has members who live within fifty miles of the NextEra Seabrook Nuclear Generating Station, which has applied for license renewal twenty years in advance of the expiration of its current license under 10 CFR §54.17(c).
- (2) Beyond Nuclear Beyond Nuclear through its director of Reactor Oversight Process is incorporated as a not for profit organization based in Takoma Park, MD which aims to educate and activate the public about the connections between nuclear power and nuclear weapons. Beyond Nuclear has members who live and work within fifty miles of the NextEra Seabrook Nuclear Generating Station which has applied for a license renewal twenty years in advance of the expiration of its current license under 10 CFR 55.17(c).
- (3) New England Coalition on Nuclear Pollution d/b/a New England Coalition, Inc. of Brattleboro, VT through its President Robert Stewart. New England Coalition has been incorporated as a not for profit corporation in the State of Vermont since 1971. It has intervened in NRC licensing and license amendment proceedings at Vermont Yankee, Yankee Rowe, and Seabrook.
- (4) Seacoast Anti-Pollution League (hereinafter “SAPL”) through its Executive Director, Doug Bogen. SAPL has worked since 1969 to protect the health, safety and general well-being of the New Hampshire Seacoast community from nuclear pollution and other

threats to the environment. Most of SAPL's members live and work within fifty miles of the NextEra Seabrook Nuclear Generating Station. It has previously intervened in NRC licensing of the Seabrook plant and New Hampshire Decommissioning Commission proceedings.

(5) New England Coalition has members who live within fifty miles of the NextEra Seabrook Nuclear Generating Station, which has applied for license renewal twenty years in advance of the expiration of its current license under 10 CFR §54.17(c).

(6) Pilgrim Watch is a public interest organization located in Duxbury, Massachusetts. Pilgrim Watch is an intervenor in the Entergy Pilgrim Nuclear Power Station license renewal application. Pilgrim watch has members who reside within 50 miles of Seabrook Station. Mary Lampert, Director of Pilgrim Watch, owns additional properties in Boston, 1 and 44 Chestnut Street.

(7) C-10 Research & Education Foundation is located in Newburyport, MA and has members who reside within 50 miles of Seabrook Generating Station. C-10 maintains an environmental monitoring system in the vicinity of Seabrook Generating Station and provides public education on environmental and energy matters. Sandra Gavutis is, Executive Director of C-10

II. This Petition conforms to the requirements¹ set forth in 10 CFR § 2.802 (c) as follows:

A. 10 CFR § 2.802 (c) (1) Set forth a general solution to the problem or the substance or text of any proposed regulation or amendment, or specify the regulation which is to be revoked or amended;

¹ 10 CFR § 2.802 (c) Each petition filed under this section shall:

- (1) Set forth a general solution to the problem or the substance or text of any proposed regulation or amendment, or specify the regulation which is to be revoked or amended;
- (2) State clearly and concisely the petitioner's grounds for and interest in the action requested;
- (3) Include a statement in support of the petition which shall set forth the specific issues involved, the petitioner's views or arguments with respect to those issues, relevant technical, scientific or other data involved which is reasonably available to the petitioner, and such other pertinent information as the petitioner deems necessary to support the action sought. In support of its petition, petitioner should note any specific cases of which petitioner is aware where the current rule is unduly burdensome, deficient, or needs to be strengthened.

Petitioners herein request a rulemaking to effect the following amendment in 10 CFR§54.17(c):

Amend the current language

“(c) An application for a renewed license may not be submitted to the Commission earlier than 20 years before the expiration of the operating license or combined license currently in effect” [emphasis added].

to read:

“(c) An application for a renewed license may not be submitted to the Commission earlier than 10 years before the expiration of the operating license or combined license currently in effect” [emphasis added].

Thus, Petitioners, for all of the good reasons set forth below, request a rulemaking that would change the time before expiration of the operating license or combined license currently in effect in which a licensee may apply for a renewed license from 20 to 10 years.

B. 2.802(c)2 State clearly and concisely the petitioner's grounds for and interest in the action requested;

1. Petitioners’ Grounds for Action Requested:

The current rule is unduly non-conservative with respect to its effect on accuracy and completeness of the application, public participation, changing environmental consideration, aging analysis and management, regulatory follow-through, National Environmental Policy Act compliance, changing regulation, and more.

Petitioners seek to restore some margin of conservation by halving the lead time on license renewal applications from 20 to 10 years.

2. Petitioner’s Interest in the Action Requested:

Petitioners all have residence or interests within 50 miles of the NextEra Seabrook Nuclear Generating Station, which has applied for license renewal (Docket 050-00443) pursuant to 10 CFR §54.17(c), 20 years in advance of the end of its current license.

Petitioning organizations all have members residing within 50 miles of NextEra Seabrook Nuclear Generating Station. Those petitioners, who are elected-officials, all represent constituents who reside within 50 miles of NextEra Seabrook Nuclear Generating Station.

The action requested, as discussed below, has a direct bearing on the quality of license renewal and thus on safety and protection of the natural and human environment shared by the petitioners.

NRC Atomic Safety and Licensing Boards have generally accorded standing to bring contentions to persons (and through such persons, organizations) who reside within 50 miles of a nuclear plant site.²

C. 2.802 (c) (3) Include a statement in support of the petition which shall set forth the specific issues involved, the petitioner's views or arguments with respect to those issues, relevant technical, scientific or other data involved which is reasonably available to the petitioner, and such other pertinent information as the petitioner deems necessary to support the action sought. In support of its petition, petitioner should note any specific cases of which petitioner is aware where the current rule is unduly burdensome, deficient, or needs to be strengthened.

1. Rulemaking for 10 CFR§54.17(c) was conducted more than 15 years ago.³ The rulemaking took place prior to sweeping changes in NRC oversight and prior to

² A petitioner may base its standing upon a showing that his or her residence, or that of its members, is within the geographical zone that might be affected by an accidental release of fission products. Houston Lighting and Power Co. (South Texas Project, Units 1 and 2), LBP-79-10, 9 NRC 439,443 (1979). Close proximity has always been deemed enough, standing alone, to establish the requisite interest for intervention. The incremental risk of reactor operation for an additional 13-15 years is sufficient to invoke the presumption of injury in fact for persons residing within 10 to 20 miles of the facility. Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-93-1, 37 NRC 5 (1993). In such a case the petitioner does not have to show that his concerns are well-founded in fact, as such concerns are addressed when the merits of the case are reached. Distances of as much as 50 miles have been held to fall within this zone. Duquesne Light Co.(Beaver Valley Power Station, Unit 2), LBP-84-6,19 NRC 393, 410, 429 (1984), et seq.

³ 60FR22491, May 8, 1995.

economic and regulatory shifts that enabled unprecedented changes in ownership and an industry-wide shift of focus from anticipated decommissioning to uprate and license renewal. The rulemaking cannot have contemplated how these changes have affected the dynamics of license renewal aging analysis and aging management planning over a period of forty years, 20 years of current license, plus 20 years of extended period of operation. Thus, in as much as the rule does not take into consideration its present context, the rule is antiquated and obsolete and must be reconsidered.

Of 32 license renewals granted, to the petitioner's knowledge, none were filed 20 years in advance of license expiration and only among 14 license renewal applications under consideration and filed in the last few years is an exception to be found, Seabrook Station-Unit 1. NextEra Seabrook has provided no credible justification for its very early filing. The great majority of licensees have filed applications for license renewal within ten years of original license expiration without any apparent negative consequences. Petitioners assert that this experience is a clear demonstration that more than ten years lead time is unnecessary and of little benefit. However, as the Petitioner's show below, filing, reviewing, and granting license renewal applications more than ten years in advance of original license expiration can have negative consequences.

2. The rulemaking for 10 CFR§54.17(c) proceeded without sufficient consideration of the impact of 20 year advance consideration of license renewal on the hearing rights of affected persons. By renewing the license of a nuclear power station twenty years in advance of the licensed extended period of operation NRC removes to the distance of a full generation, the opportunity for an adjudicatory hearing, a coming generation of affected residents, visitors, and commercial interests as yet unable or unprepared to speak for themselves. 10 CFR§54.17(c) introduces the question of whether the action proposed is obtaining the license or entering into an extended period of operation 20 years hence. Certainly the safety and environmental ramifications; the physical impact on affected persons begins 20 years away. Thus 10 CFR§54.17(c) allows for effective segmentation of the proposed action rendering the

permission so far removed in time from the implementation as to provide an intellectual disconnect or, in effect, void legal notice.

3. 10 CFR§54.17(c) allows licensees and NRC reviewing staff to press to untenable lengths of time the unproven ability to predict the aging and deterioration of systems, structures, and components (“SSCs”). 10 CFR§54.17(c) promotes failure of the license renewal application to encompass the potential effects of an environment that is arguably changing at an unprecedented rate. What level of coastal subsidence or ocean level rise may be predicted with confidence over the next forty years? What will be the status of more environmentally benevolent alternative energy sources (for example PV solar is now cost competitive per installed watt with nuclear⁴). Active proposals for more than 3000 megawatts of windpower are currently on the books in New England; with potential for 12,000 more. (See, Exhibit One, AP Article, New England grid chief: Cooperate on wind power, APFN by AP – David Sharp, August 17, 2010). It cannot be credibly projected over 20 years what windpower will then be available, in part because windpower projects are seldom, if ever, planned 20 years in advance.

What in 40 years will be the global threat of terrorism and its impact on security of nuclear reactors; and will be the changes in the status of probable availability of offsite storage for spent fuel and LLRW? Will a rise in ocean temperatures over the next forty years, bring more aquatic species into the thermal discharge plume or within the draft of cooling intake? What will be the status of threatened or endangered species? Petitioners observe that, in general, prediction failure rates for complex systems tend to increase exponentially with respect to the length of time until the prediction matures.

4. Filing for license renewal at mid-term of the current license finds the licensee at a place in SSC service life where in industry experience few failures are observed and, generally, those that are observed are episodic or anomalous in nature and thus cannot be readily plotted as a trend for prediction purposes. The time of an elevated rate of failures due to design, manufacturing, and construction defects has passed and is largely irrelevant to aging management in the proposed extended period of operation.

⁴ <http://www.renewableenergyworld.com/rea/news/article/2010/08/test10>

The anticipated end-of-design life and aging issues have barely, if at all, begun to emerge, so little or no plant-specific information on how a given plant will age is available to be trended, provide lessons, or otherwise illuminate the path forward. It is generally observed that for many SCCs such information flow rates increase rapidly in the fourth quarter and toward the end of license. This SSC reliability progression is well-known and often illustrated in the the so-called “Bath Tub Curve”. Additionally corrosion risk is a function of time. The Beaver Valley NPP containment issue provides a powerful example of operating experience emerging at a late date in a way that affects the license renewal. VT Yankee of course also provides a series of later life structural failures as additional examples. Therefore, it is appropriate, from a regulatory audit standpoint, to wait until applicable failure rate and observed aging phenomena data is in hand, before attempting time-limited aging analysis or aging management planning; less than 10; not less than 20 years in advance of operating license expiration.

5. The current rule exacerbates NRC staff and licensee difficulty in following license renewal commitments. License renewal applications are often approved with the proviso that certain commitments be made and fulfilled; generally before the period of extended operation begins. Such commitments often include inspections, tests, analyses, and development of programs vital to safety and environmental protection. Regulatory experience shows NRC staff turnover, changes in oversight, licensee staff changes, and ownership (licensee) changes, greater in a twenty year period than a ten year period, will at once complicate and place increased emphasis on proper handoff of unfulfilled licensee commitments.

6. Twenty years from application to onset of extended period of operation will, based on regulatory history, certainly see an inordinate amount of applicable regulatory change, with lack of compliance likely to be grandfathered in. Current issues under consideration for treatment in license renewal process include, aging management for underground, buried, or inaccessible pipes that carry radionuclides; and aging management for safety-related low voltage cables that are below-grade and not qualified for a wet environment.

8. In its current form, the regulation conflicts with, circumvents, and otherwise frustrates the letter and spirit of the National Environmental Policy Act (NEPA). It

further conflicts with, circumvents, and otherwise frustrates the object and goals of NEPA.

The NEPA provides at Section 1500.2 that the Federal agencies, “shall to the fullest extent possible: (e) Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.”

The Act provides at Section 1501(b) that “NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail.”

A license renewal application for a nuclear power plant submitted 20 years in advance of the expiration of its current operating license cannot “to the fullest extent possible” accurately and reliably evaluate nor reasonably foresee the alternatives to the proposed action as required by NEPA. In fact, the premature information constitutes nothing more than the “amassing needless detail” which in the case of nuclear power plant relicensing action establishes a bias towards a premature relicensing decision.

This concern applies broadly to all potential environmental impacts to be considered under NEPA. More specifically, setting maximum advance date for the submission of a relicensing application at 20 years in effect needlessly restricts the substance of the Environmental Review by fixing its analysis unreasonably and prematurely from an application’s expiration date and the beginning of impact from the proposed Federal action. By setting the application’s Environmental Review at a maximum of 20 years in advance of the impacts from the Federal action, the regulation as currently written effectively limits the scope and content of an Environmental Review rendering it a speculative venture and a snapshot on the recent past rather than a “rigorous” and “objective” assessment of what is “reasonably foreseeable.”

NEPA was promulgated into law to create an “action-forcing” mechanism to reduce the environmental damage caused by federal action. The Act directs federal agencies before proceeding with any major Federal action to prepare a “detailed statement” known as the Environmental Impact Statement. In part, the EIS must consider and disclose to the public the reasonable alternatives analysis to the proposed action.

The Council on Environmental Quality (CEQ) refers to the alternatives analysis section as the “heart of the EIS” and among the several requirements mandates that the agencies:

- a. Rigorously explore and objectively evaluate all reasonable alternatives and for alternatives that were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
- b. Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.
- c. Include reasonable alternatives not within the jurisdiction of the lead agency. [40 CFR 1502.14]⁵

As directed by NEPA to all Federal agencies, the NRC requires that the Environmental Report shall discuss the “Alternatives to the proposed action. The discussion of alternatives shall be sufficiently complete to aid the Commission in developing and exploring, pursuant to section 102(2)(E) of NEPA, ‘appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.’ To the extent practicable, the environmental impacts of the proposal and the alternatives should be presented in comparative form;” [10 CFR 51.45(b)(3)]⁶

⁵ GPO,
<http://ecfr.gpoaccess.gov/cgi/t/text/textidx?c=ecfr&sid=1e6d3d45fcc96d041149858bd337246c&rgn=div8&view=text&node=40:32.0.3.3.3.0.29.14&idno=40>

⁶ <http://www.nrc.gov/reading-rm/doc-collections/cfr/part051/part051-0045.html>

An application for relicensing submitted 20 years in advance of the current license expiration date cannot reasonably be determined to be “sufficiently complete” nor reasonably be represented to “rigorously explore and objectively evaluate all reasonable alternatives.”

As an example, on June 1, 2010, NextEra, also known as Florida Power & Light, submitted its application for the relicensing the Seabrook nuclear power plants on the New Hampshire seacoast 20 years in advance of its current 40-year operating license expiration date identified as March 15, 2030.

Given that the proposed relicensing period for which the proposed Federal action is being taken is for the period of 2030-250, Chapter 7 of the Seabrook License Renewal Environmental Report provides a dated, incomplete and meaningless assessment of Energy Alternatives and is biased towards the requested relicensing action.⁷

NextEra’s Environmental Review briefly discusses in its “Wind Power” and concludes that “The scale of this technology is too small to directly replace a power plant the size of Seabrook Station; capacity factors are low (20 to 40 percent), and the extensive land requirement (23,280 acres) with the desired wind regimes is limiting. Therefore, NextEra Energy Seabrook has concluded that wind power is not a reasonable alternative to Seabrook Station license renewal.”⁸

However, with regard to the period of 2030 to 2050 for the requested federal action the proffered Environmental Review necessarily fails because its evaluation is but a premature snapshot of the recent past. The federal decision for the requested relicensing is therefore to be made in the void of technological developments in clean renewable energy

⁷ <http://www.nrc.gov/reactors/operating/licensing/renewal/applications/seabrook.html>

⁸ NextEra Energy Seabrook, LLC, Environmental Report, Section 7.2.1.5, p. 7-12

Clearly the application did not consider and makes no mention of New Hampshire's offshore wind potential as identified by the National Renewable Energy Laboratory at the United States Department of Energy in its offshore wind rating for New Hampshire as "good to outstanding".⁹ Given that the 10 CFR 54.17 provides for a premature snapshot, NextEra's Environmental Review similarly did not discuss that on April 29, 2010 the federal government approved the Cape Wind Farm precedent-setting offshore wind farm in the United States, which is also within the Region of Interest for the Seabrook Environment Report.¹⁰ The Environment Report's exclusion by rule of a continuing succession of alternative advances is further illuminated by in a June 2010 announcement of a consortium comprised of the governors of ten East Coast states including New Hampshire, the Department of Interior calling for the development of offshore wind on the Continental Shelf.¹¹ Department of Energy currently estimates that 20% of the nation's electricity can be generated by wind by 2030.¹²

In fact, the submission of the Environment Report 20 years in advance prematurely and unnecessarily freezes an environmental impact statement excluding significant advances and new information so as to better inform the federal decision making process as promulgated under NEPA.

The ability to limit the scope of the Environmental Review and bias the decision of the proposed Federal action is aided and abetted by the reading of 10 CFR 54.17 which provides that environmental impact statement can be performed 20-years out from the license expiration date.

⁹ Attached as Exhibit Two

¹⁰ "Offshore wind farm near Cape Cod, first in US gets federal approval," Washington Post, April 29, 2010 <http://www.washingtonpost.com/wp-dyn/content/article/2010/04/28/AR2010042804398.html>

¹¹ "Ten States Aim for Offshore Wind Boom in Alliance with Department of Interior," June 10, 2010, <http://solveclimate.com/blog/20100610/ten-states-aim-offshore-wind-boom-alliance-interior-department>

¹² "20% Wind by 2030," National Renewable Energy Laboratory, US Department of Energy, July 2008, <http://www.nrel.gov/docs/fy08osti/41869.pdf>

V. Petitioner's Request to Suspend all License Renewal Review Pending Disposition of the Petition for Rulemaking

Petitioners respectfully request that the Commission suspend all license renewal review pending disposition of this petition for rulemaking. Given the lead-in time on the application(s) and the fact that no additional work would be required of the licensee, no significant additional burden would accrue to the applicant. In as much as several petitioners intend to file requests for a hearing and petitions for leave to intervene in the matter of Seabrook license renewal, such suspension would preserve the order of the application review process and contribute to judicial efficiency and economy. Further suspension of review activities at this point would avoid duplication of effort should the Commission promulgate the rule change requested. The petitioners believe that such action and effects were contemplated by the Commission in 10 CFR 2.802 (d), albeit after an Atomic Safety licensing Board has been convened and proceedings are underway,

The petitioner may request the Commission to suspend all or any part of any licensing proceeding to which the petitioner is a party pending disposition of the petition for rulemaking.

Although the petitioners are not parties to a proceeding in this matter and no proceeding has yet been convened, the petitioners urge the Commission to find that the present situation is analogous to that described in 10 CFR 2.802 (d) and to exercise its discretion for the benefit of the NRC and all parties by suspending review of all license renewal applications submitted more than ten years in advance of current license expiration until resolution of this petition.

IV. Conclusion

Most of the signatories of this petition have been close observers of Seabrook Nuclear Generating Station from the time of its construction in the mid-1970s, through the issuance of its operating license in 1990, until the present.

Petitioners could do little but cringe when NRC chose to ignore the constraints of swollen summer populations and wholly inadequate evacuation routes; and proceed to approve unworkable emergency response plans.

The petitioners saw one safety issue after another emerge; among those issues that made the press were counterfeit (non-nuclear grade certified) parts, small bore piping through-corrosion, steam generator tube failures, massive tritium leaks to groundwater, security barrier failures, and more. Thus, with license renewal application, the attention of the petitioners is focused on all of the application's safety and environmental protection promises, which the licensee proposes to apply somewhere over that twenty year horizon.

Plainly, the conditions are too far off to be calculated or even envisioned in the detail sufficient to give adequate assurance of protection of public health and safety or protection of the environment.

For all of the good reasons stated above the petitioners urgently and respectfully request that NRC now undertake a rulemaking to revise 10CFR §54.17 to permit license renewal application no sooner than ten years prior to expiration of current license and to apply the rule to all license renewal applications that have not yet been issued an NRC Staff Final Safety Evaluation Report.

Finally, petitioners respectfully request that if it is determined by the Executive Director for Operations that this petition does not include sufficient information or sufficiently detailed information to merit review then petitioners will be allowed an opportunity, in accord with 10 CFR§ 2.802 (f) to submit additional data.

Respectfully submitted,

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Exhibit One

New England grid chief: Cooperate on wind power, APFN

- by AP - DAVID SHARP - August 17, 2010

PORTLAND, Maine (AP) – A cooperative approach among New England states holds the best hope for meeting the region's renewable energy goals by giving states additional clout and spreading the risk of expensive projects, the top official from the regional power grid operator said Monday. A report by the New England States Committee on Electricity last month encouraged the six states – Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut – to work together to select projects and line up bidders.

The regional approach shares the risk associated with expensive wind power projects and gives a boost to economies of scale that the region's states can't achieve on their own, said Gordon van Welie, president and chief executive of ISO New England Inc.

For all its promise, wind power output won't grow by leaps and bounds overnight.

New England has 12,000 megawatts of wind power potential – roughly the same amount of electricity of a dozen nuclear power plants the size of the now-defunct Maine Yankee plant – but there are active proposals for only 3,000 megawatts on the books, van Welie told The Associated Press.

"There's not going to be a big bang here. It's going to be an evolution," van Welie said while attending The Council of State Governments' eastern regional conference.

The approach follows the slowing of the world economy and lowering of energy prices from 2008, when oil peaked at \$147 a barrel. Those higher energy prices made an economic argument for renewable energy, but now it's going to be up to states to ratchet up regulatory pressure, van Welie said.

New England states have a goal of boosting the proportion of electric energy demand met by renewable resources and energy efficiency by a combined total of 30 percent in 2020.

Meeting that goal would require significant investments in wind power and imported hydro power from Canada as well as a new network of high-voltage transmission lines. A conservative goal for 5,500 megawatts of wind power and 3,000 megawatts of hydro power through 2030 would carry transmission costs of between \$7 billion and \$12 billion, van Welie said. One megawatt is enough electricity to serve 800 to 1,000 homes.

New England's effort to get its act together on renewable energy development has been given new impetus recently by a plan in the works among Midwestern states to significantly expand wind power.

Some Midwestern wind power could be marketed to the Northeast, but it makes more sense to develop New England's wind power potential instead of looking to the Midwest, van Welie said.

Exhibit Two



