



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

March 1, 2011

Mr. Paul Freeman  
Site Vice President  
c/o Mr. Michael O'Keefe  
NextEra Energy Seabrook, LLC  
P.O. Box 300  
Seabrook, NH 03874

SUBJECT: ISSUANCE OF ENVIRONMENTAL SCOPING SUMMARY REPORT  
ASSOCIATED WITH THE STAFF'S REVIEW OF THE APPLICATION BY  
NEXTERA ENERGY SEABROOK, LLC FOR RENEWAL OF THE OPERATING  
LICENSE FOR SEABROOK STATION (TAC NUMBER ME3959)

Dear Mr. Freeman,

The U.S. Nuclear Regulatory Commission (NRC or the staff) conducted a scoping process and solicited public comments from July 20 to September 21, 2010, to determine the scope of the staff's environmental review of the application for renewal of the operating license for Seabrook Station (Seabrook). The scoping process is the first step in the development of a plant-specific supplement to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (GEIS), for Seabrook.

As part of the scoping process, the staff held two public environmental scoping meetings in Hampton, New Hampshire on August 19, 2010, to solicit public input regarding the scope of the review. The staff also received written comments by letter and e-mail. At the conclusion of the scoping process, the staff prepared the enclosed environmental scoping summary report identifying comments received during the scoping period. In accordance with Section 51.29(b) of title 10 of the *Code of Federal Regulations* (10 CFR), the staff will send a copy of the scoping summary report to all participants in the scoping process.

The transcripts of the public scoping meetings are available for public inspection in the NRC public document room (PDR), located at One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852, or from the NRC's Agencywide Documents Access and Management System (ADAMS). The ADAMS Public Electronic Reading Room is accessible at <http://www.nrc.gov/reading-rm/adams.html>. The transcripts for the afternoon and evening meetings are listed under accession numbers ML102520183 and ML102520207, respectively. If you encounter problems accessing documents in ADAMS should contact the NRC's PDR reference staff by telephone at 1-800-397-4209 or 301-415-4737 or by e-mail at [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov).

P. Freeman

-2-

The draft supplement to the GEIS is scheduled to be issued in mid 2011. A notice of the availability of the draft document and the procedures for providing comments will be published in the *Federal Register*. If you have any questions concerning the staff's environmental review of this license renewal application, please contact Mr. Michael Wentzel, Project Manager, at (301) 415-6459 or by e-mail at [michael.wentzel@nrc.gov](mailto:michael.wentzel@nrc.gov).

Sincerely,

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

Bo M. Pham, Chief  
Projects Branch 1  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosure:  
As stated

cc w/encl: Distribution via Listserv

P. Freeman

-2-

The draft supplement to the GEIS is scheduled to be issued in mid 2011. A notice of the availability of the draft document and the procedures for providing comments will be published in the *Federal Register*. If you have any questions concerning the staff's environmental review of this license renewal application, please contact Mr. Michael Wentzel, Project Manager, at (301) 415-6459 or by e-mail at [michael.wentzel@nrc.gov](mailto:michael.wentzel@nrc.gov).

Sincerely,

*/RA/*

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Projects Branch 1  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosure:  
As stated

cc w/encl: Distribution via Listserv

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**ADAMS Accession Number: ML110100113**

<b>OFFICE</b>	LA:DLR	PM:DLR/RPB1	OGC (NLO)	BC:DLR/RPB1	D:DLR
<b>NAME</b>	IKing	MWentzel	MSpencer	BPham	BHolian
<b>DATE</b>	01/19/2011	01/19/2011	01/31/2011	02/08/2011	02/17/2011
<b>OFFICE</b>	PM:DLR/RPB1	BC:DLR/RERB	BC:DLR/RPB1		
<b>NAME</b>	MWentzel	Almboden	BPham		
<b>DATE</b>	03/01/2011	03/01/2011	03/01/2011		

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Letter to Paul Freeman from Bo M. Pham dated March 1, 2011

SUBJECT: ISSUANCE OF ENVIRONMENTAL SCOPING SUMMARY REPORT  
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NEXTERA ENERGY SEABROOK, LLC FOR RENEWAL OF THE OPERATING  
LICENSE FOR SEABROOK STATION (TAC NUMBER ME3959)

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BPham                    MSpencer, OGC  
DWrona                  WRaymond, RI  
Almboden                DTiftt, RI  
EMiller                  NMcNamara, RI  
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DHarrison                DScrenci, RI  
JJohnson, RI            ABurritt, RI

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Tim Noonis                Joe Casey                Paul Gunter                Joseph Fahey  
Janet Guen                William Harris            Maggie Hassan  
Peter Somssich            Rob McDowell            Skip Medford  
Debbie Grinnell           Gil Brown                Paul Blanch  
Michael Schidlovsky      Doug Bogen               Robin Read  
Dennis Wagner            Mary Lampert             Bob Backus

**Environmental Impact Statement  
Scoping Process**

**Summary Report**

**Seabrook Station  
Seabrook, New Hampshire**

**March 2011**



**U.S. Nuclear Regulatory Commission  
Rockville, Maryland**

ENCLOSURE

## Introduction

The U.S. Nuclear Regulatory Commission (NRC) received an application from NextEra Energy Seabrook, LLC (NextEra), dated May 25, 2010, for renewal of the operating license for Seabrook Station (Seabrook). Seabrook is located in Seabrook, New Hampshire. The purpose of this report is to provide a concise summary of the determinations and conclusions reached, including the significant issues identified, as a result of the scoping process in the NRC's environmental review of this license renewal application.

As part of the application, NextEra submitted an environmental report (ER) (NextEra, 2010) prepared in accordance with Title 10 of the *Code of Federal Regulations* (CFR) Part 51 which contains the NRC requirements for implementing the National Environmental Policy Act of 1969 (NEPA). The requirements for preparation and submittal of ERs to the NRC are outlined in 10 CFR 51.53(c)(3).

The requirements in Section 51.33(c)(3) were based on the findings documented in NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (GEIS) (NRC, 1996), (NRC, 1999). In the GEIS, the staff identified and evaluated the environmental impacts associated with license renewal. After issuing a draft version of the GEIS, the staff received and considered input from Federal and State agencies, public organizations, and private citizens before developing the final document. As a result of the assessments in the GEIS, a number of impacts were determined to be small and generic to all nuclear power plants. These were designated as "Category 1" impacts. An applicant for license renewal may adopt the conclusions contained in the GEIS for Category 1 impacts unless there is new and significant information that may cause the conclusions to differ from those of the GEIS. Other impacts that are plant-specific were designated as "Category 2" impacts and are required to be evaluated in the applicant's ER. The Commission determined that the NRC does not have a role in energy-planning decision-making for existing plants. Therefore, an applicant for license renewal need not provide an analysis of the need for power or the economic costs and benefits of the proposed action. Additionally, as stated in 10 CFR 51.23(b), the Commission determined that the ER need not discuss any aspect of storage of spent fuel for the facility that is within the scope of the generic determination in 10 CFR 51.23(a). This determination was based on the Nuclear Waste Policy Act of 1982 and the NRC's Waste Confidence Rule, 10 CFR 51.23.

On July 20, 2010, the NRC initiated the scoping process by issuing a *Federal Register* notice (75 FR 42168). This notified the public of the staff's intent to prepare a plant-specific supplement to the GEIS regarding the application for renewal of the Seabrook operating license. The plant-specific supplement to the GEIS will be prepared in accordance with 10 CFR Part 51.

The scoping process provides an opportunity for public participation to identify issues to be addressed in the plant-specific supplement to the GEIS.

The notice of intent identified the following objectives of the scoping process:

- Define the proposed action
- Determine the scope of the supplement to the GEIS and identify significant issues to be analyzed in depth
- Identify and eliminate peripheral issues
- Identify any environmental assessments and other environmental impact statements being prepared that are related to the supplement to the GEIS
- Identify other environmental review and consultation requirements
- Indicate the schedule for preparation of the supplement to the GEIS
- Identify any cooperating agencies
- Describe how the supplement to the GEIS will be prepared

The NRC's proposed action is whether to renew the Seabrook Station operating license for an additional 20 years.

The scope of the Supplemental Environmental Impact Statement (SEIS) includes an evaluation of the environmental impacts of Seabrook license renewal and reasonable alternatives to license renewal. The "Scoping Comments and Responses" section of this report includes specific issues identified by the comments. The subsequent NRC responses explain if the issues will be addressed in the SEIS and, if so, where in the report they will likely be addressed. Several environmental issues related to license renewal are site-specific. These include: threatened or endangered species, impingement and entrainment of fish and shellfish, historic and archaeological resources, housing impacts, public services (public utilities and transportation), offsite land use (license renewal term), severe accidents, and environmental justice. During the scoping process, the Staff noted the change in status of the Atlantic sturgeon. On October 6, 2010, the National Marine Fisheries Service (NMFS) proposed listing the Gulf of Maine distinct population segment of the Atlantic sturgeon as a threatened species under the Endangered Species Act (NOAA, 2010). This change of status is currently in the rulemaking process.

Throughout the scoping process, the NRC staff identified and eliminated peripheral (i.e., out-of-scope) issues for the environmental review. This report provides responses to comments that were determined to be out of the scope of the environmental review. For in-scope comments, the staff will consider the comments in the development of the SEIS. A detailed response to in-scope comments will be provided, if necessary, in Appendix A of the SEIS.

In order to meet the requirements of the Magnuson-Stevens Fisheries Conservation and Management Act and Section 7 of the Endangered Species Act, the NRC staff is required to consult with the National Marine Fisheries Service to evaluate the potential impacts of continued operation on Atlantic sturgeon, and the essential fish habitat. In order to fulfill its obligations

under the National Historic Preservation Act, the NRC additionally initiated consultation with the Advisory Council on Historic Preservation, the New Hampshire State Historic Preservation Officer, and the Massachusetts State Historic Preservation Officer.

The NRC staff expects to publish the draft SEIS in mid 2011. The NRC staff did not identify any cooperating agencies for this review. The SEIS will be prepared by NRC staff with contract support from Argonne and Pacific Northwest National Laboratories.

The NRC invited the applicant; Federal, State and local government agencies; Indian tribal governments; local organizations; and individuals to participate in the scoping process by providing oral comments at the scheduled public meetings or by submitting written comments before the end of the scoping comment period on September 21, 2010. The scoping process included two public meetings which were held on August 19, 2010, at the Galley Hatch Conference Center, 815 Lafayette Road, Hampton, New Hampshire 03842. The NRC issued press releases, purchased newspaper advertisements, and distributed flyers locally to advertise these meetings. Approximately 82 people attended the meetings. Each session began with NRC staff members providing a brief overview of the license renewal process and the NEPA environmental review process. Following the NRC's prepared statements, the floor was opened for public comments. Twenty-two attendees provided oral comments that were recorded and transcribed by a certified court reporter. The transcripts of the comments from these meetings are included at the end of this report. The NRC issued a summary of the scoping meetings on September 20, 2010 (NRC, 2010a).

Additionally, on October 15, 2010, the NRC contacted representatives from four Indian tribes to solicit input to the scoping process (NRC, 2010c). The four tribes were the Wampanoag Tribe of Gay Head-Aquinnah, Abenaki Nation of New Hampshire, Cowasuck Band of Pennacook-Abenaki People, and the Abenaki Nation of Missisquoi. No responses were received from these tribes.

All documents associated with this scoping process are available for public inspection in the NRC Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852, or from the NRC's Agencywide Documents Access and Management System (ADAMS). The ADAMS Public Electronic Reading Room is accessible at <http://www.nrc.gov/reading-rm/adams.html>. Persons who encounter problems in accessing documents in ADAMS should contact the NRC's PDR Reference staff by telephone at 1-800-397-4209 or 301-415-4737 or by e-mail at [pdresource@nrc.gov](mailto:pdresource@nrc.gov). The ADAMS accession number for each document is listed below in Table 1.

In addition to the comments received at the meetings, the NRC also received three letters and five e-mails with comments about the review. At the conclusion of the scoping period, the staff reviewed the transcripts, meeting notes, and all written material received in order to identify individual comments. Each comment was marked with a unique identifier including the Commenter ID (specified in Table 1) and a comment number, allowing each comment to be traced back to the transcript, letter, or e-mail in which the comment was submitted. Comments were consolidated and categorized according to the topic within the proposed supplement to the GEIS or according to the general topic if outside the scope of the GEIS. Once comments were grouped according to subject area, the staff determined the appropriate action for the comment. The action or resolution for each comment is described in the staff's responses in this report.

Table 1 identifies the individuals providing comments and the assigned Commenter ID. Individuals are listed alphabetically by last name, however, the corresponding Commenter ID was assigned in the order in which they spoke at the public meeting. Accession numbers identify the source document of the comment in ADAMS.

**TABLE 1. Individuals Providing Comments During The Scoping Comment Period**

<b>Commenter</b>	<b>Affiliation (If Stated)</b>	<b>Comment Source</b>	<b>Commenter ID</b>	<b>ADAMS Accession Number</b>
Backus, Robert		Afternoon Scoping Meeting	I	ML102520183
Bamberger, Paul		Evening Scoping Meeting	P	ML102520207
Blanch, Paul		Afternoon Scoping Meeting	K	ML102520183
		Evening Scoping Meeting		ML102520207
Bogen, Doug	Seacoast Anti-Pollution League	Afternoon Scoping Meeting	E	ML102520183
		www.regulations.gov		ML102670048
Brown, Gilbert		Evening Scoping Meeting	V	ML102520207
Casey, Joe	New Hampshire Building and Construction Trades Council	Afternoon Scoping Meeting	G	ML102520183
Fahey, Joseph	Town of Amesbury, Office of Community and Economic Development	Letter	X	ML102650486
Fleming, Kevin		Afternoon Scoping Meeting	M	ML102520183
Grinnell, Debbie	C-10 Research and Education Foundation	Evening Scoping Meeting	R	ML102520207
Guen, Janet	United Way of the Greater Seacoast	Afternoon Scoping Meeting	F	ML102520183

Commenter	Affiliation (If Stated)	Comment Source	Commenter ID	ADAMS Accession Number
Gunter, Paul	Beyond Nuclear	Afternoon Scoping Meeting	D	ML102520183
		Evening Scoping Meeting		ML102520207
Harris, William		Evening Scoping Meeting	T	ML102520207
		E-mails		ML102500271 ML102420043
Hassan, Maggie	New Hampshire State Senator, District 23	Evening Scoping Meeting	N	ML102520207
		Letter		ML102420037
Kemp, Joyce		www.regulations.gov	Z	ML102640371
Lampert, Mary	Speaking for C-10 Research and Education Foundation	Afternoon Scoping Meeting	A	ML102520183
		Evening Scoping Meeting		ML102520207
McDowell, Robert		Afternoon Scoping Meeting	C	ML102520183
Medford, Scott		Evening Scoping Meeting	U	ML102520207
Noonis, Tim	Hampton Area Chamber of Commerce	Afternoon Scoping Meeting	H	ML102520183
		Evening Scoping Meeting		ML102520207
Nord, Chris		Evening Scoping Meeting	O	ML102520207

<b>Commenter</b>	<b>Affiliation (If Stated)</b>	<b>Comment Source</b>	<b>Commenter ID</b>	<b>ADAMS Accession Number</b>
Port, Andrew	City of Newburyport, Office of Planning and Development	Letter	W	ML102660331
Read, Robin	New Hampshire House of Representatives, District 16	Afternoon Scoping Meeting	B	ML102520183
Schidlovsky, Michael	Exeter Area Chamber of Commerce	Afternoon Scoping Meeting	J	ML102520183
Somssich, Peter		Evening Scoping Meeting and Submittal	Q	ML102520207
Vining, Geordie		www.regulations.gov	Y	ML102450525
Wagner, Dennis		Afternoon Scoping Meeting	L	ML102520183
Wolff, Cathy		Evening Scoping Meeting	S	ML102520207

The comments and suggestions received as part of the scoping process are documented in this section and the disposition of each comment is discussed. The formatting of the comment in the source document is not necessarily preserved. The meeting transcripts and written comments are included in their original form at the end of this report.

Comments have been grouped into general categories.

In-scope comments:

1. Comments in Support of NextEra, Nuclear Power and License Renewal (PRO)
2. Comments Concerning Alternatives to License Renewal (ALT)
3. Comments Concerning the Socioeconomic Impacts of Seabrook (SOC)
4. Comments Concerning Aquatic Ecology (ECO)
5. Comments Concerning the Effects of Climate Change (CLI)
6. Comments Concerning Severe Accident Mitigation Analysis (SAMA)
7. Comments Concerning Radioactive Releases to the Environment (RAD)
8. Comments Concerning Hydrology/Groundwater (HYD)

Out-of-scope comments:

9. Comments Concerning Long-term Radioactive Waste Storage (WST)
10. Comments Concerning Plant Security and Emergency Planning (SEC)
11. Comments Concerning Safety Issues and Aging Management of Plant Systems (SAF)
12. Comments Concerning License Renewal and Related Processes (LIC)

In those cases where no new environmental information was provided by the commenter, only a brief response has been provided to the comment and no further evaluation will be performed.

The preparation of the plant-specific supplement to the GEIS (also referred to as the Supplemental Environmental Impact Statement or SEIS) will take into account all the relevant issues raised during the scoping process. The SEIS will address both Category 1 and 2 issues, along with any new information identified as a result of the scoping process. The SEIS will rely on conclusions supported by information in the GEIS for Category 1 issues and will include analysis of Category 2 issues and any new and significant information. The NRC will issue a draft SEIS for public comment. The comment period will offer the next opportunity for the applicant, interested Federal, State, and local government agencies, Indian tribal governments, local organizations, and other members of the public to provide input to the NRC's environmental review process. The comments received on the draft SEIS will be considered in the preparation of the final SEIS. The final SEIS, along with the staff's safety evaluation report (SER), will provide much of the basis for the NRC's decision on the NextEra application to renew the license of Seabrook.

## Summary of Seabrook Station Public Scoping Comments and Responses

### In-Scope Comments

#### 1. Comments in Support of NextEra, Nuclear Power and License Renewal (PRO)

The comments in this category can be found at the back of this report and are labeled with the following identifiers: C-01-PRO, G-01-PRO, H-01-PRO, H-02-PRO, J-01-PRO, L-01-PRO, N-01-PRO, N-03-PRO, U-01-PRO, T-09-PRO, and V-01-PRO

**Response:** *These comments are general in nature and express support for nuclear power, NextEra, or license renewal of Seabrook. These comments provide no new and significant information and will not be evaluated further in the development of the SEIS.*

#### 2. Comments Concerning Alternatives to License Renewal (ALT)

The comments in this category can be found at the back of this report and are labeled with the following identifiers: B-01-ALT, E-04-ALT, E-08-ALT, T-04-ALT, and T-07-ALT

**Response:** *These comments refer to the alternatives to license renewal of Seabrook, including the alternative of not renewing the operating license, also known as the “no-action” alternative. The staff will evaluate all reasonable alternatives in Chapter 8 of the SEIS. Appendix A of the draft SEIS will include expanded responses to these comments as well as the other comments that are within the scope of the NRC’s environmental review.*

#### 3. Comments Concerning the Socioeconomic Impacts of Seabrook (SOC)

The comments in this category can be found at the back of this report and are labeled with the following identifiers: F-01-SOC, and U-02-SOC

**Response:** *These comments address the socioeconomic benefits of Seabrook on local/regional communities and economy, including related issues such as employment, taxes, and philanthropy. The staff will address the socioeconomic impact of renewing the Seabrook operating license in Chapter 2 and 4 of the SEIS. In addition, the socioeconomic impact of not renewing the Seabrook operating license will be discussed in Chapter 8. Appendix A of the draft SEIS will include expanded responses to these comments as well as the other comments that are within the scope of the NRC’s environmental review.*

#### 4. Comments Concerning Aquatic Ecology (ECO)

The comment in this category can be found at the back of this report and is labeled with the following identifier: I-03-ECO

**Response:** *This comment relates to the impact on aquatic ecology associated with Seabrook’s once-through cooling systems. The impacts of impingement and entrainment from Seabrook’s once-through cooling system will be discussed in Chapters 2 and 4 of the SEIS. Appendix A of*

*the draft SEIS will include an expanded response to this comment as well as the other comments that are within the scope of the NRC's environmental review.*

#### **5. Comments Concerning the Effects of Climate Change (CLI)**

The comments in this category can be found at the back of this report and are labeled with the following identifiers: E-02-CLI, and E-07-CLI

**Response:** *These comments relate to the impact of climate change on the environmental characteristics of the Seabrook site. The effects of climate change on the Seabrook site will be discussed in Chapter 4 of the SEIS. Appendix A of the draft SEIS will include expanded responses to these comments as well as the other comments that are within the scope of the NRC's environmental review.*

#### **6. Comments Concerning Severe Accident Mitigation Analysis (SAMA)**

The comments in this category can be found at the back of this report and are labeled with the following identifiers: A-01-SAMA, and A-03-SAMA

**Response:** *These comments relate to the adequacy of the applicant's SAMA, focusing mainly on the adequacy of the MELCOR Accident Consequence Code System, version 2 (MAACS2) code and the validity of the models chosen by the applicant to perform the analysis. The staff's evaluation of the applicant's SAMA analysis will be discussed in Chapter 5 and Appendix F of the SEIS. Appendix A of the draft SEIS will include expanded responses to these comments as well as the other comments that are within the scope of the NRC's environmental review.*

#### **7. Comments Concerning Radioactive Releases to the Environment (RAD)**

The comments in this category can be found at the back of this report and are labeled with the following identifiers: E-01-RAD, E-06-RAD, and O-03-RAD

**Response:** *These comments relate to the radioactive effluents, including tritium, which may occur during the operation of Seabrook. The effects on public health and the environment due to effluents from Seabrook will be evaluated in Chapter 4 of the SEIS. Appendix A of the draft SEIS will include expanded responses to these comments as well as the other comments that are within the scope of the NRC's environmental review.*

*These comments also deal with aging management of plant systems as they relate to radioactive releases caused by degrading plant components. In so much as these comments deal with aging management, those portions of the comments are considered out of scope for the environmental review and will not be evaluated further in the development of the SEIS. Aging management of plant systems will, however, be evaluated as part of the Seabrook license renewal application safety review. The results of that evaluation will be documented in the staff's Safety Evaluation Report.*

#### **8. Comments Concerning Hydrology/Groundwater (HYD)**

The comment in this category can be found at the back of this report and is labeled with the following identifier: A-02-HYD

*This comment relates to the methodology utilized to select monitoring well locations used to track releases from Seabrook. Groundwater quality issues related to the operation of the Seabrook will be evaluated in Chapter 4 of the SEIS. Appendix A of the draft SEIS will include expanded responses to these comments as well as the other comments that are within the scope of the NRC's environmental review.*

*This comment also concerns aging management of plant systems as they relate to radioactive releases caused by degrading plant components. In so much as this comment deals with aging management, those portions of the comment are considered out of scope for the environmental review and will not be evaluated further in the development of the SEIS. Aging management of plant systems will, however, be evaluated as part of the Seabrook license renewal application safety review and this comment has been provided to the NRC staff conducting the safety review for further consideration. The results of the staff's safety review of the license renewal application will be documented in the staff's Safety Evaluation Report.*

### **Out-of-Scope Comments**

#### **9. Comments Concerning Long-term Radioactive Waste Storage (WST)**

**Comment E-03-WST:** When we're talking about the nuclear waste, those of us who have been following this issue for some years, we know that that waste is not going to be hauled out of there the day the plant closes. It needs to cool off. It's got to be transported. There are many, many issues.

That means we are going to be dealing with that waste on that site for many decades after that, and that is a scary prospect with the ocean roaring in with storms and increased sea level. We need to be addressing these issues in this environmental impact study.

**Comment I-04-WST:** We know the plant has routine releases, and as somebody mentioned, I think Mr. Bogen mentioned, we know that there's been some tritium releases which was certainly not intended. We need to look at that. I was going to mention the sea level rise, but that was well-discussed by Mr. Bogen. I won't go into that.

Lastly, of course, I know that these licensing proceedings and these individual plant proceedings, we're shuffled off with many of the important things are shuffled off as a generic issue to how those are handled on a big national basis. A quintessential example of that is of course nuclear waste disposal.

But we think that this needs to be dealt with in this specific context of this plant. If we're going to license this plant for 20 more years, we're going to have a lot more spent fuel. That means a lot of very much greater level of high level waste disposal. We think that the environmental impacts of that have to be considered in regard to the particular characteristics of this site, where there's, as we say, a spent fuel pool which is pretty close to the ambient sea level and

the concerns that that raises.

**Comment O-01-WST:** So, for high-level waste -- as was asked earlier -- where is the high-level waste to go? We have 20-times the radioactive activity of the Chernobyl accident's release contained here at Seabrook in far less than adequate a storage system -- far less than adequate. It's going to be here for the foreseeable future, which might mean many decades because Yucca Mountain is not going to open. That was the plan -- the plan was no good.

Why isn't going off to some permanent disposal site on Indian land somewhere a good idea? Well, the state of Nevada doesn't want it. In fact, everyone feels like we would feel -- the state of New Hampshire it turned out didn't want the DOE to take over seven towns by eminent domain. Nobody's going to want that. So, all over the United States, plants just like ours -- the people in those regions live in sacrifice zones where the radioactive inventory, 20-times the size of Chernobyl's release, is left right on site. That's what we're left with. Why is our homegrown dumpsite not adequate? First of all, it's here in Seabrook, which is one of the fastest-growing summer populations in the -- well, fastest-growing populations in the United States. One of the most populous beach populations in the United States during the summertime.

So, we have a lot of people moving in.

Secondly, an above ground closely housed unhardened dry-cask bunker constitutes one of the most vulnerable terrorist targets on U.S. soil. Which is a huge worry. Should be a huge worry for our elected officials, but we don't seem to be getting traction in the state of New Hampshire with that issue. Yet, Florida Power and Light's bunker was rushed to construction years after whole agencies of the federal government were established to protect the American public from fiascos such as this. We have a roadmap for better technologies than the [NUHOMS] system that was implemented quickly by Florida Power and Light just as Florida Power and Light is quickly trying to implement this relicensing process. The process should be slowed down so that the proper technologies could be used to adequately protect the public.

The disposition of Seabrook's reactors high-level waste should be included within the scope of any license extension process. Sufficient time should be devoted to finding the state-of-the-art storage technologies for all U.S. commercial and military high-level waste now because so-called temporary storage must suffice to keep us safe for perhaps many decades. I want to point out for the technicians in this room that believe that this is not within the scope of these upcoming hearings -- the Generic Environmental Impact Statement, Section 5, allows for review of high-level waste storage in terms of consequence. In this case, it could be the consequence of a severe accident, for instance, due to terrorist attack. Which is just how the issue was raised in California and the Ninth Circuit Court of Appeals upheld the contentions of those that brought that litigation to court. So, this is a totally permissible arena for high-level waste to be considered within the scope.

**Comment P-01-WST:** Recently I read a quote from an official from Seabrook who said -- We can handle the nuclear waste for the next 20-years and beyond. Well, beyond's [sic] faith -- there's no information. When people answer serious questions with words like `beyond` it really

scares me. And he also did it tonight to me. He said -- Well, it's safe until the year 2080. But it's been decades now that you had a chance to prepare for 2081 and I heard you say nothing about 2081. It's another non-answer to a very serious question. And you get this all the time. You have to be very careful with the way they use the language.

**Comment T-02-WST:** We have some setbacks in long-term high-level waste management, but I think the Yucca Mountain thing is not entirely over. It may depend on elections this year and later. There's also an issue of alternative dry-cask storage as a technology that might be considered for mitigation in lieu of on-site swimming pool storage of waste from this plant. And another major change since 1990 -- and this is the primary field I work with. I used to plan and draft arms-control treaties on leave working for the State Department -- The Arms Control and Disarmament Agency -- the United States through this Nunn-Lugar Program has bought and repossessed by various means both high-level waste and low-level waste and nuclear fuel rods from other countries, which are important for our non-proliferation efforts. So, I believe it is a positive factor that needs to be considered that since the United States has now accumulated much more nuclear material -- from other nations and has decommissioned a substantial number of nuclear weapons -- that the recycling of this material in low-level enriched fuel assemblies is a much safer alternative for those fuels than to leave them abroad in a Kazakhstan or any other number of other places. So, these are major changes that need to be considered in the relicensing. Though I also find it troubling that the relicensing is done so far ahead. I believe there's some opportunities that ought to be included in the design of the Environmental Review.

**Response:** *To the extent the comments suggest a need to analyze the environmental impacts associated with onsite waste storage during the 20 year renewal term, Part 51 designates the environmental impacts pertaining to on-site spent fuel storage a Category 1 issue. See 10 CFR Part 51, subpart A, Appendix B, Table B-1. The GEIS generally addresses "onsite storage of spent fuel during a renewal period of up to 20 years. Chapter 6 of the GEIS addresses "environmental impacts associated with the uranium fuel cycle as they apply to license renewal," and the "environmental impacts associated with the management of radiological and nonradiological wastes during the license renewal term." Chapter 6 of the GEIS concludes that continued storage of existing spent fuel and storage of spent fuel generated during the license renewal term can be accomplished safely and without significant environmental impacts. Chapter 6 further concludes without qualification or exception that mitigation alternatives have been considered and existing regulatory requirements provide adequate mitigation for on-site spent fuel storage.*

*To the extent the comments suggest site-specific analysis of the safety and environmental effects of long-term storage of spent fuel onsite, this issue has been assessed by the NRC, and, as set forth in its Waste Confidence Decision (codified at 10 CFR 51.23), the Commission has generically determined that such storage can be accomplished without significant environmental impact. In the Waste Confidence Decision, the Commission determined that spent fuel can be stored onsite for at least 30 years beyond the license operating life, which may include the term of a renewed license. At or before the end of that period, the fuel would be removed to a permanent repository. In its Statement of Consideration for the 1990 update of the Waste Confidence Decision (55 FR 38472), the Commission addressed the impacts of both license*

*renewal and potential new reactors. In its December 6, 1999, review of the Waste Confidence Decision (64 FR 68005), the Commission reaffirmed the findings in the rule. In addition to the conclusion regarding safe onsite storage of spent fuel, the Commission states in the rule that there is reasonable assurance that at least one geologic repository will be available within the first quarter of the 21st century, and sufficient repository capacity for the spent fuel will be available within 30 years beyond the licensed life for operation of any reactor. On October 9, 2008, the Commission issued a proposed revision of the Waste Confidence Decision in the Federal Register (73 FR 59551) for comment. This revision provided the basis for extending the time for sufficient repository capacity for spent fuel to be available from within 30 years beyond the licensed life for operation of any reactor to within 50 to 60 years. The proposed revision also provides reasonable assurance that spent fuel can be stored without significant environmental impacts for at least 60 years beyond the licensed life for reactor operation assuming storage of spent fuel in either a spent fuel storage basin or onsite or offsite independent spent fuel storage installation. On December 23, 2010, the Commission issued a final revision to the agency's "Waste Confidence" findings and regulation (75 FR 81037), expressing the Commission's confidence that the nation's spent nuclear fuel can be safely stored for at least 60 years beyond the licensed life of any reactor and that sufficient repository capacity will be available when necessary. In addition, the Commission directed the NRC staff to conduct additional analysis for longer-term storage to ensure that the NRC remains fully informed by current circumstances and scientific knowledge relating to spent fuel storage and disposal (NRC, 2010b). In February 2011, the states of New York, Vermont, and Connecticut filed a petition for judicial review of the Commission's December 23, 2010 waste confidence decision by the United States Court of Appeals for the District of Columbia Circuit.*

*To the extent the comments reference the Ninth Circuit Court of Appeals in *San Luis Obispo Mothers for Peace, v. NRC*, 449 F.3d 1016 (9th Cir. 2006), the court upheld the Commission's decision on the Atomic Energy Act issues, but, as to the NEPA issues, concluded that "the NRC's determination that NEPA does not require a consideration of the environmental impact of terrorist attacks does not satisfy reasonableness review," and held that "the EA prepared in reliance on that determination is inadequate and fails to comply with NEPA's mandate." *Id.* at 1035. The Supreme Court did not review a petition to review this matter. However, refusal to take review does not imply agreement with the Circuit Court's decision. In a Memorandum and Order concerning the renewal of the operating license for the Oyster Creek Nuclear Generating Station, AmerGen Energy Company, LLC (License Renewal for Oyster Creek Nuclear Generating Station), CLI-07-8, 65 NRC 124 (February 26, 2007), ADAMS Accession No. ML070570511), the Commission reaffirmed its long-standing position that NEPA does not require inquiry into the consequences of a hypothetical terrorist attack. The Commission stated that it "respectfully . . . disagrees" with the Ninth Circuit Court of Appeals decision, and will follow the decision of the court as applicable to the Diablo Canyon matter and any other matters within the jurisdiction of the Ninth Circuit. But, as to other proceedings, the Commission continues to believe that such inquiry is not required. In the Oyster Creek Memorandum and Order, the Commission also reached the following conclusions: First, terrorist issues are unrelated to "the detrimental effects of aging" and are beyond the scope of license renewal. Second, the environmental effect caused by terrorists is simply too far removed from the natural*

*or expected consequences of agency action to require a study under NEPA. Third, a NEPA-driven review of the risks of terrorism would not be necessary because the NRC has undertaken extensive efforts to enhance security at nuclear facilities. These ongoing post-9/11 enhancements provide the best vehicle for protecting the public. Fourth, substantial practical difficulties impede meaningful NEPA-terrorism review, while the problem of protecting sensitive security information in the quintessentially public NEPA and adjudicatory process presents additional obstacles. Finally, the GEIS documents "a discretionary analysis of terrorist acts in connection with license renewal, and concluded that the core damage and radiological release from such acts would be no worse than the damage and release to be expected from internally initiated events." The Commission's decision in Oyster Creek was affirmed by the Third Circuit. *New Jersey Department of Environmental Protection v. NRC*, 561 F.3d 132 (3rd Cir.2009). The Commission recently reiterated its position that the NRC conduct environmental analyses of terrorist scenarios only for facilities in the Ninth Circuit in *Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station)*, CLI-10-14, 71 NRC \_\_, \_\_ (slip op. at 37-28) (June 17, 2010) (ADAMS Accession No. ML101680369).*

*Accordingly, as discussed above and as specified by 10 CFR 51.23(b), and 10 CFR Part 51, subpart A, Appendix B, Table B-1, no site-specific discussion of any environmental impact of spent fuel storage in reactor facility storage pools or ISFSIs during the renewal term or thereafter is required in an environmental impact statement associated with license renewal. These comments do not provide new and significant information and will not be evaluated further in development of the SEIS.*

## **10. Comments Concerning Plant Security and Emergency Planning (SEC)**

**Comment M-01-SEC:** Does the evacuation plan and the accuracy of the evacuation plan figure into the process of license renewal? That's my question. I'm sorry if that's something I could have found online or, you know, other documents. But with that, at the same time, with this license renewal then being considered, then could evacuation be considered further, such as the 2000 census data or does it go to a 2010? Is there a requirement for updating?

And then particularly we're talking about the evacuation of special, "special needs," whether it be school children, retirement communities, retirement homes, nursing homes, elderly, of whatever or special needs people of any sort. So that's all. My question coming here today is really to ask if evacuation updating is required, and if it's not, then could it be given consideration at this point?

**Comment O-02-SEC:** Evacuation Planning was a snow job here 20-years ago. The reason -- the reason that so many rules got changed -- the field got changed 20-years ago -- was because the evacuation plans 20-years ago were not sufficient. So, someone came up here earlier and said we're dealing with it in the moment -- in the here and now. Well, in the here and now, these evacuation plans are unworkable. They've been unworkable for 20-years. Take a look. The Federal Emergency Management Agency 20-years ago -- the Region One director, Ed Thomas, said it's no good. And because of that, we have to stop the license. The Reagan administration pulled him, installed a new Region One director and they rubber-stamped the

evacuation plans. That's not an adequate evacuation plan. We have twice as many people living in the seacoast region than we did 20-years ago. So, how is that going to work? That has to be included within the scope of relicensing.

**Comment T-01-SEC:** I'd like to address mainly issues relating to the scope of the Environmental Review. First, what has changed significantly since the licensing hearing that ended with the license in 1990 for the Seabrook plant? Several significant changes have occurred. We have a significant population increase -- both in southern New Hampshire and in northern Massachusetts. You'll get the 2010 census data during your review for this license. We have increased mobility of people. So, during the summer, we have much more peaking of beach traffic. We have a great infusion of population at the beaches, which raises a challenge for evacuation planning.

**Comment T-03-SEC:** My first concern has to do with emergency evacuation planning and recovery operations. Not only did FEMA have trouble with the original evacuation planning, but the governor of Massachusetts, then Governor Dukakis, could not approve in 1990 the evacuation plan. We already had traffic saturation troubles then.

I've been working on mitigation for the Whittier Bridge Project, which is I-95 crossing the Merrimack River. We're going from 6 to 10-lanes -- 8-lanes and two emergency lanes. There've been significant studies mainly from Florida since hurricane Andrew -- many important reports from the National Research Council on contraflow evacuation opportunities and so ultimately we will have more flow-capacity -- we'll have a significant, about a two thirds increase, in flow south in the event of an emergency at Seabrook. But we're getting saturation on I-95. We have not yet had the adequate modeling of connectors between say Route 110 going east/west between I-95 and 495. So, we really don't have the flow-capability to handle evacuations in a major emergency, especially in the summer when we have beach traffic.

Now, a most significant change since 1990 that I think needs to be considered in the Environmental Review and I think also in the Safety Review -- has to do unfortunately with the development of volitional actors -- terrorists -- who would like to take out high-value targets that can cause great harm.

We have two important de-classified findings that are pertinent to the Seabrook relicensing. First we have the 9/11 Commission, which in its official release indicated that those who planned the World Trade Center bombings had actually had Seabrook as a priority target just before that. That's all online in the 9/11 Commission report.

Then more recently Curt Weldon, the Congressman from Pennsylvania who served on the Armed Services Committee of the House, released information that a group of mainly Pakistani citizens in Canada with 19 arrests were considering an attack on Seabrook after 9/11. So, I think as we're planning for the operation of this plant past 2030 -- even in the next decade -- we need now to take a re-look as part of the environmental mitigation and risk assessment for this relicensing, the consequences of having actors who are malevolent rather than just the risk that come from nature and from failures of technology that are inadvertent.

I believe the C-10 Coalition -- I am not a member. I am not opposed to nuclear power -- but I believe they've done some important work to model weather patterns from Seabrook. It may have made sense for the 1990 assessment to look at prevailing winds. Prevailing winds mainly go west to east. Unfortunately, when you are dealing with malevolent actors, you will not get an attack when the prevailing winds go from west to east. You may get it when they go north/south because that would pick up a much larger population north of Boston that would be exposed in the event of a terrorist attack.

So, I suggest that there are opportunities if you take the weather modeling that was done by the C-10 organization and other studies and get the assistance from the Defense Threat Reduction Agency -- they have the nation's best models. They have a declassifiable version that can do the plume analysis when the winds are blowing in any number of directions, but you should include as the greatest threat a north/south wind pattern and then you should probably include the prevailing wind patterns and you should include summer beach times -- our summer traffic on I-95 peaks between May and October. The main peaks are July/August to Labor Day. You have major peaks in congestion on weekends. If you do that -- I believe if you did that analysis and the U.S. Department of Transportation now has excellent models -- their Office of Emergency Evacuation -- they have excellent software models. NRC has a group of excellent software models on emergency evacuation.

If you get the help of the Defense Threat Reduction Agency, which has a colonel in this region who would do the modeling for you, I believe you would be able to develop much better mitigation planning. So, you do not evacuate everybody in a major emergency. You only evacuate the people who are at high risks of radiation or other threats. That would be essential to do.

You should also include consideration of what's been developed by the U.S. Department of Transportation for contraflow traffic where they provide in their contracting that all contractors working on interstates are responsible to remove their construction equipment in an emergency because during hurricane evacuations in Florida and elsewhere, we've had problems with contraflow traffic when equipment is left on these interstates. So, I believe that this is at least one advantage of this early relicensing application, which is we have an inadequate set of emergency plans to evacuate people. We have good software in the federal government in different parts. And an excellent plume analysis done by the Defense Threat Reduction Agency that's available to NRC. I hope that as part of this relicensing, you consider mitigation measures that would be important for both evacuation and recovery operations in the event of a terrorist attack or just an accident at the plant.

I also hope you'll consider dry-cask storage options, so that you can get the spent-fuel assemblies that are now on site at Seabrook off that site. That could also reduce a target of attack and radiological harm.

**Comment T-05-SEC:** It is, I believe, in the national interest that the scoping review for this re-licensing application be broader than is the usual scope for a re-licensing application. The Nuclear Regulatory Commission has an opportunity to improve significantly, and at relatively

low cost, both the consequences assessments and the emergency evacuation capabilities for Seabrook Station and the potentially impacted communities within NRC's Region I area.

I note that it is the usual practice for NRC not to consider emergency evacuation capabilities for a licensed nuclear plant when that license is re-considered with an application for license extension. This would be a huge and potentially fateful omission for both the Nuclear Regulatory Commission and the nation, if the NRC were not to include options for emergency evacuation planning and mitigation as a part of the Seabrook Station No. 1 license renewal.

When Seabrook Station No. 1 was licensed the primary risks were of an accidental nature,. Evidence from the 9/11 Commission and other official sources indicate that Seabrook is now primarily at risk from intention attack by malevolent adversaries. This energy facility is situated near a major population center and summer-surfing beach traffic; it is accessible from low flying aircraft passing over the Atlantic Ocean; it is now less well protected by Air Defense capabilities following closure of Pease Air Force Base nearby; and it has a containment system designed before the era of terrorist hijackings of wide bodied jets. These are fundamental changes of circumstances and assumptions since this plant was licensed in year 1990.

On the one hand, if NRC decides to exclude consideration of options to improve planning, modeling and procedures for emergency evacuation and re-licenses without these mitigation measures, and this facility then suffers either a terrorist attack or an accident involving significant radiation dispersal, this would be a tragedy not only for the region surrounding Seabrook Station but also for the entire civil electric nuclear industry. And indirectly for both national energy policy and an evolving effort to reduce greenhouse gases (GHGs) as part of a global environmental commitment of the U.S. government.

On the other hand, if NRC seizes a significant opportunity to improve at relatively low cost the planning, modeling, regional sensor network, and evacuation planning for Seabrook-related emergencies, the outcome would be to assure that, if a radiation release of significance occurs, whether by accident or by terrorist initiative, loss of life, harm to public health and safety, and regional economic disruptions are minimized responsibly.

These proactive initiatives would provide essential reassurance, not only for the re-licensing of the Seabrook Station No. 1, but for potential follow-on licenses for additional nuclear energy facilities at a preexisting nuclear energy complex with ready access to cooling ocean waters. It is notable that the Seabrook energy complex was initially designed and planned for at least two reactors. A broad scope for environmental risk assessment and mitigation planning for the Seabrook No. 1 station, could be confidence building, hence create opportunities for follow-on licensed facilities at this same energy complex.

Broad based environmental assessment should include, within mitigation strategies, initiatives that can: improve emergency planning; monitor in near-real-time radiation dispersals; design and implement phased, zonal, evacuation strategies; and build in, as field data indicate, in situ no-evacuation options for those in subzones not at risk.

Technologies to incorporate within consequences assessments and evacuation strategies, should include: plume modeling linked to near-real-time meteorological data; embedded software override capabilities within traffic signalization & traffic synchronization systems for evacuation arteries; contraflow traffic designs based on lessons learned from hurricane evacuations across interstate highway systems; backup batteries or renewable signal systems, designed for operability during electric grid outages; encryption capabilities to defeat unauthorized "capture" of light signal evacuation algorithms; and regional coordination among transportation and law enforcement entities within the affected region.

Opportunities to improve emergency planning, modeling, regional radiation sensor networks and evacuation management are now present, with capabilities far greater than were available when Seabrook Station was licensed in year 1990:

- In 1990 the main risks related to component and system failures through natural occurring accidents, based on WASH-1400 and other fault-tree modeling;
- Over the past two decades, models for nuclear-related emergencies have developed greater capabilities to project risks of volitional attacks -- such as declassified information indicates to have been under consideration specifically for the Seabrook No. 1 station before 9/11/2001 and since that tragedy.
- In particular, the Defense Threat Reduction Agency has significantly improved its plume & dispersal modeling capabilities for radioactive clouds and related meteorological projections; and
- Upon request of NRC, the Defense Threat Reduction Agency would be capable and willing to model radiation-plume dispersals and hazards as a function of (a) seasonal weather patterns, and (b) terrorist optimization to place at risk maximal regional populations when attacking the Seabrook reactor itself, or (c) attacks on spent fuel assemblies stored in on-site swimming pools.
- Of great potential to minimize loss of life, harm to public health and safety, and economic productivity in the region, a non-profit group operating in northern Massachusetts, the C-10 Foundation, now operates a near-real-time network of eighteen (18) regional radiation-monitoring stations throughout northern Massachusetts. The Commonwealth of Massachusetts funds these sensor stations, which constitute significant regional resources in event of radiation release(s).
- Of critical importance for an Incident Commander (whether based in the Department of Homeland Security, or the Nuclear Regulatory Commission, or under more dire circumstances, within STRATCOM) (under military auspices) would be the enlargement of the regional radiation sensor network to include communities in southern New Hampshire, presently not included in the C- 10 Foundation radiation sensor network.
- A total of about 50 radiation sensors, a low cost investment for the re-licensing and

potential expansion of nuclear reactors at the Seabrook facility, would provide an Incident Commander the capability to stage evacuations (and in situ population holds) by zones assigned, with DTRA near-real time plume analysis, by levels of radiation intensity, and traffic evacuation capability modeling.

- A primary goal should be to reduce expected loss of life and harm to public health and safety, and not the total clearance of human populations from the entire region within a specified period of time. Under many circumstances, total clearance of region populations would be counterproductive to protection of life, public health and safety, and the regional economy.
- Without a regional radiation sensor network available to an Incident Commander, excessive evacuations would be likely to expose potential evacuees in stalled motor vehicles with less protection than within their homes or businesses, needlessly aggravating loss of life, cancer incidents, etc.
- Without a regional sensor network, and without any evacuation orders, the communities around Three Mile Island (1979) self-evacuated without any cohesive planning. This resulted in massive transport congestion. Had there been significant radioactive dispersal, which was not present, loss of life would have been needlessly aggravated.
- In contrast, the failure of prompt notification and coordinated evacuations in the region surrounding Chernobyl (in the Ukraine, 1986) resulted in epidemiological estimates of radiation-related losses of approximately 92,000 lives -- most resulting from failures to design orderly, zonal evacuations.
- The 18 existing C-10 Foundation sensor sites in northeastern Massachusetts presently lack long-life backup batteries, and redundant telecommunications channels, so a (federal) Incident Commander could be reliably informed despite the potential (likely) loss of regional power across the regional electric grid. The cost of these network improvements (backup batteries, dual telecom channels) is so minimal, relative to potential for life saving and potential to improve public confidence supporting additional plant licensing, that this mitigation measure should be considered essential to any emergency plan and to mitigation measures to enhance emergency evacuation capabilities.
- The extension of this regional sensor network to Southern New Hampshire might be facilitated by a grant or grants from the Department of Homeland Security to regional communities or a non-profit Foundation operating within the State of New Hampshire. It is essential that southern New Hampshire communities be included in near-real-time radiation monitoring and reporting to assure a cost-effective emergency evacuation (and non-evacuation) system is developed as part of the re-licensing process for Seabrook Station No. 1.
- Since the licensing of the Seabrook plant in year 1990, NOAA has developed weather

modeling capabilities that could be utilized for regional emergency/consequences assessment/evacuation planning and mitigation plans.

- It is my understanding that the C- 10 Foundation commissioned a study of seasonal weather patterns in the region of Seabrook Station by a trained meteorologist. These localized studies should be combined with NOAA databases to develop threat scenarios that account for potential terrorist initiatives designed to maximize population at risk, as with timing an incident while winds flow from north to south over densely populated land areas.
- The Emergency Transportation Operations staff within the U.S. Department of Transportation has developed modeling capabilities to optimize contraflow evacuations; these models have utilized empirical data from Florida, Louisiana, Texas and other hurricane episodes, and might assist NRC in developing a 21st century emergency evacuation and management model, thence a regional emergency plan for Seabrook Station.
- The National Research Council (Transportation) has a variety of findings for emergency evacuation management on its websites. These include design into construction contracts for Interstate highways and other arterial evacuation routes of positive incentives to clear construction equipment from all operable lanes of highways in advance of contraflow traffic implementation. There need to be financial bonuses for compliance, and significant contract penalties for noncompliance, so contraflow traffic is not impeded by leftover construction equipment as has happened during all too many recent hurricanes.
- The "Intelligent Transportation" program of the U.S. Department of Transportation has developed traffic signalization / signalization synchronization that can automate traffic signals for major evacuation arteries, and on-ramps/off-ramps with (reversed) contraflow evacuations. These capabilities can be designed to accept, with encryption protection, wireless signals to implement evacuation software algorithms.

Even if some of the "best practices" emergency evacuation capabilities are beyond the responsibility of the NRC license applicant, or of the NRC itself, NRC's environmental scope for mitigation planning should be broad-based in identifying cost-effective mitigation measures, some fundable by the U.S. Department of Transportation, or by the Department of Homeland Security, or by state governments.

**Comment W-01-SEC:** It is our understanding that the scope of this initial review is to determine what environmental and safety issues will be the subject of a supplement to your boilerplate "Generic Environmental Impact Statement" (GEIS) which is typical for licenses and renewals on all Nuclear Power Plants. It is our understanding that these GEIS and supplemental environmental and safety issues will be analyzed in greater depth over the next year and a half, prior to granting a License Renewal for Nextera Energy Seabrook LLC for their operation of the Seabrook No. 1 Unit from year 2030 to year 2050.

While we understand that safety considerations were taken into account for the Seabrook No. 1 Unit during the initial licensing process in 1999, and that the plant has been operational without major incident for the first twenty (20) years, we believe that substantial public benefits should be associated with a potentially premature “renewal” to the current license which will not presently expire for another twenty (20) years. If the NRC is expected to extend the license commitment until 2050, several decades into the future, mitigation for this private benefit (and public risk) should be provided with some additional consideration for risk assessment and emergency evacuation capabilities within the potentially impacted communities. Newburyport, MA falls within ten (10) miles of the Seabrook Nuclear Power Plant.

While it may not be usual practice for the NRC to consider emergency evacuation planning and mitigation for a license renewal extension, this would be a mistake for both the Nuclear Regulatory Commission and the nation. It is in both the national and regional interest that the scope of review for this re-licensing application be broader than is the usual scope for a re-licensing application. The Nuclear Regulatory Commission has an opportunity to improve the emergency evacuation capabilities for Seabrook Station and the potentially impacted communities, including Newburyport, MA.

The following relevant comments were previously submitted by Newburyport resident William Harris:

When Seabrook Station No. 1 was licensed the primary risks were of an accidental nature. Evidence from the 9/11 Commission and other official sources indicate that Seabrook is now primarily at risk from intentional attack by malevolent adversaries. This energy facility is situated near a major population center and summer-surfing beach traffic; it is accessible from low flying aircraft passing over the Atlantic Ocean; it is now less well protected by Air Defense capabilities following closure of Pease Air Force Base nearby; and it has a containment system designed before the era of terrorist hijackings of wide bodied jets. These are fundamental changes of circumstances and assumptions since this plant was licensed in year 1990.

The NRC should utilize this opportunity to improve (at relatively low cost) the planning, modeling, regional sensor network, and evacuation planning for Seabrook-related emergencies. In return for granting such a large extension to the current license term, Nextera Energy Seabrook LLC should be required to assure that, if a radiation release occurs, (whether by accident or by terrorist attack) loss of life, harm to public health and safety are minimized.

In order to provide for coordinated evacuations in the event of a Seabrook-related emergency, we request that the NRC require the following mitigation, within the Seabrook region, as essential elements of review under the GEIS supplement:

- 1) Design and installation of plume modeling systems linked to near-real-time meteorological data;
- 2) Design and installation of software overrides within existing traffic signalization & traffic

synchronization systems for key evacuation arteries (such signal-synchronization software could provide the added ongoing benefit of reducing vehicle congestion stops, fuel usage, air pollution, and economic losses due to regional transportation congestion);

- 3) Modeling and preparations (installation of signage, signalization, control systems, etc.) for “contraflow” traffic designs based on lessons learned from hurricane evacuations across interstate highway systems;
- 4) Installation of backup batteries or renewable signal systems, designed for operability during electric grid outages; and
- 5) Funding for regional emergency preparedness coordination among municipal, transportation, law enforcement and emergency response entities.

**Comment X-01-SEC:** As you are well aware, MassDOT is preparing to replace the Whittier Bridge which crosses the Merrimack River between Amesbury and Newburyport, MA along Interstate 1-95. The Whittier Bridge represents a key bottleneck and vulnerability point between the two communities and the estimated 75,000 vehicle trips per day that move between New Hampshire and Massachusetts. As part of the licensing requirements in 1990 when the Plant was originally permitted, evacuation capabilities for the resident population largely depend upon Route 110 in Amesbury and Salisbury as well as 1-95 southbound across the Whittier Bridge. As such, recent advances in the US DOT "intelligent transportation" technologies provide significant opportunities for automated traffic signal synchronization -- using remotely signaled algorithms for contra flow evacuations, and for changes in red/green ratios for other highway connectors.

Thus, there are opportunities to now model arterial vehicular networks, and identify and eliminate bottlenecks for evacuation.

Given the significant traffic flows and transportation-related improvements being designed for the arterial backbone of Seabrook's evacuation plan we are requesting that the re-licensing hearing consider new environmental and safety impacts. This is first real opportunity for federal reevaluation of Evacuation Plans for communities within 10 miles of the Plant since 1990, When Massachusetts Governor Dukakis refused to accept the evacuation plan because it was inadequate and impractical. Beach populations in summer are roughly double what they were in year 1990. As a result, we are requesting that the regional communities participate in a Demonstration Program, sponsored by USDOT, that would:

- Incorporate emergency traffic modeling on a regional basis. Some of these modeling and traffic signalization capabilities have the added benefit of improving regional traffic flow during summer peaking and weekend peaking demand for vehicular travel in the region while also improving emergency management;
- Our region has near-saturation of coastal roadways, and at times total saturation during "beach" visitation surges. See the Whittier Bridge traffic projections, increasing from

about 77,000 trips per day in coming decades. MassDOTs draft EIR is pending for this project which will provide additional baseline data for modeling;

- Incorporate improved near-real-time "plume analysis" for radiation contingencies as considered generically in NUREG-1555, Section V (pp 513 - 547);
- Harness improved, declassified plume modeling techniques of the Defense Threat Reduction Agency, which that agency would make available to the NRC or the Department of Homeland Security in an emergency, for selection of evacuation zones by stages and non-evacuation zones under an Incident Commander;
- Augment the existing 18 (Geiger Counter) sensor and reporting system in northeastern Massachusetts communities, including the Town of Amesbury. Supplement the 18 existing sites with about 32 additional sites, mainly in southern New Hampshire, thereby improving near-real-time radiation monitoring and most likely reducing the zones requiring evacuation, making the evacuation plan more realistic and less likely to expose evacuees in stalled vehicles to radiation without building protection for occupants;
- Improve the reliability of regional radiation monitoring capabilities by identifying low-cost redundant capabilities (e.g. backup batteries for each of the 18 existing sensor sites) and redundant data links so an incident commander could obtain near-real-time radiation monitoring reports even if Seabrook produces no net electrical power and if the regional electric grid is temporarily inoperable;
- Improve emergency coordination between Northern Massachusetts and Southern New Hampshire, both at the state-to-state level and through a Demonstration Program involving the local municipalities in the region of the Seabrook station. Utilize the U.S. Dept of Transportation Modeling Capabilities (Office of Emergency Operations in US DOT) and use the "lessons learned" from Hurricane contra flow operations; and
- Supporting Regional planning whereby utilizing expansion of I-95 from 3 to 4 lanes to the New Hampshire border (8 or 9 lanes of contra flow compared to 5 or 6 now) will induce further growth pressures and traffic congestion. The study should harness the existing technologies for synchronized traffic signalization for all Merrimack River crossings, for Highways 110 and 286, and ramp improvements for 1-95 and 1-495 at the Highway 110 connectors now under modernization. The same technologies -- using solar panel rechargeable LED signals with remotely re-programmable software -- could assure more effective contra flow evacuation and save lives of law enforcement personnel -- who need not be exposed to direct traffic that can be done by synchronized signals in most hot spots along the corridor. Signal synchronization software also reduces vehicle congestion stops, fuel usage, air pollution, and economic losses due to regional transportation congestion.

In closing, we are seeking to layout a proposal that will meet the federal "requirements" for relicensing and we are providing a foundation for Regional Traffic Congestion & Emergency

Evacuation Grant opportunities for our community and the surrounding region. In designating our Region a "Model Evacuation Demonstration Grant Area", we are seeking U.S. DOT support to use state-of-the-art traffic management support, build upon our regional planning capabilities, and fund this regional transportation mitigation and management effort.

**Response:** *The Commission considered the need for a review of emergency planning issues in the context of license renewal during its rulemaking proceeding on 10 CFR Part 54, which included public notice and comment. As discussed in the Statement of Considerations for rulemaking (56 FR 64966), the programs for emergency preparedness at nuclear plants apply to all nuclear power plant licensees and afford protection for each licensee regardless of plant design, construction, or license date. Requirements related to emergency planning are set forth in the regulations at 10 CFR 50.47 and Appendix E to 10 CFR Part 50. These requirements apply to all operating licenses and will continue to apply to plants with renewed licenses. Emergency Plans are evaluated by the NRC and coordinated with the Federal Emergency Management Agency (FEMA) and local authorities for implementation. Drills and exercises are conducted periodically to verify the adequacy of the plans. Issues identified during such exercises are resolved within the context of the current operating license and are not reevaluated as part of license renewal. These comments will be provided to the appropriate NRC staff for consideration in their assessments of emergency preparedness; however, the comments are considered out of scope in accordance with the regulations governing license renewal and will not be evaluated further in development of the SEIS.*

**Comment Q-03-SEC:** Safety and Security Concerns. The safety record of many U.S. nuclear power plants over the past 30-years has been better than was expected by the critics. However, the strong scrutiny brought to bear by both environmental groups and government agencies must be credited with most of this outcome, since otherwise profits would have been the main focus. It is, however, also important to point out that Seabrook's initial license was conditioned by the requirement that a final destination point for its nuclear waste be determined prior to initial operation. This never happened because the federal government never provided such a location. If Seabrook had told the public at the time that the final destination of the waste was in fact on the property of Seabrook Station, perhaps that license would never have been issued. Regardless of the disposal issue, this power plant must be considered a possible terrorist target and the level of security needed for adequate protection must be very high. However, undisclosed visits by government teams testing such security at nuclear power plants have concluded that the current security measures are not enough. This means that there will be added additional expense for all nuclear power plants in the near future.

Materials for Nuclear Weapons Proliferation. Not only is a nuclear power plant a potential terrorist threat, but it must also be viewed as a target for groups attempting to procure nuclear fuel materials to enable the production of nuclear weapons. With increasing storage of nuclear waste on-site, as is the current case currently at most nuclear sites, without the full protection against theft that a centralized facility could provide, the attraction for both terrorists and nuclear weapons brokers will only increase.

**Comment T-06-SEC:** A separate component of mitigation planning, within the scope of

environmental review, should include the Applicant's participation, whether voluntary or mandatory, in critical infrastructure control system monitoring programs, such as the recently announced "PERFECT CITIZEN" research program of the National Security Agency. ["Sensors deployed in computer networks for critical infrastructure" will be utilized in cooperative research with energy utility companies. See "U.S. Plans Cyber Shield for Utilities, Companies," Wall Street Journal, July 8, 2010.] Older NRC-licensed nuclear plants are likely to have "legacy" information technology systems connected to the internet; loss of service (LOS) attacks can result in harm to public safety if electric power disruptions are controlled by a hostile adversary and not by utility management. Mitigation measures to monitor, prevent, and contain cyber attacks on nuclear-electric systems subject to NRC licensure should be an essential component of any re-licensing review and mitigation for the Seabrook facilities.

**Comment T-08-SEC:** As a reference document that could be relevant to the scoping of environmental review for relicensing of the Seabrook Station No. 1 facility, please consider the attached full report of the Congressionally-mandated Commission to Assess the Threat of High Altitude Electromagnetic Pulse (EMP), completed in April 2008.

The entire report has a relevancy to critical infrastructure protection requirements. Chapter 2 provides an overview of the electric power industry, its infrastructure, particular system components, and overall vulnerability to EMP attack. If you have not considered this chapter before, please do so in the future.

Of particular interest, the Commission observed that protection of energy system components from prompt (E1), intermediate (E2) and longer phased (E3) energy pulse phenomena would be most cost-effective when combined with parallel efforts to improve cyber security -- relevant to the current initiatives of the National Security Agency to sponsor joint research programs with the electric power industry.

This Commission Report (the Graham Commission) notes the long-lead time to acquire transmission, transformer, and other specialized equipment under market conditions in which China and India and other emerging states have a substantial backlog of equipment orders.

The risks of long-term electric power outages and shortages, because of back-orders for essential replacement equipment, are substantial.

One overall consequence of the risks of EMP attack (low probability/high consequence) and cyber attack on electric system infrastructure (higher probability/high consequence), with a National Electric Reliability Council (NERC) excess capacity that is closer to 10 percent compared to historic reserve capacity of 20 percent is the following:

Taking into account a reduced reserve of electric power generation capability in future years for the nation and for the Northeast (US-Canada) region within which Seabrook operates, the relicensing of existing baseline electric generation capabilities, if sufficiently safe, contributes positively to a capacity buffer that could significantly protect the public health and safety and economy of the United States and of the North American continent, and of specific regions of

the nation.

ISO New England currently projects (May 2010) net installed capacity (in MWe) of 32,127 for the year 2013-2014, with peak load capacity of 28,570 (MWe) in that same year. Projected peak load (demand) as a percentage of projected net regional capacity (which includes hydroelectric imports from Canada) is about 88.9%. Hence, there is a reserve of about 11 percent of net projected capacity as of the year 2013-2014.

Seabrook Station, with about 1,248 MWe of online capacity produces about 4.4 percent of the New England ISO demand projected for year 2013-2014. This is about one fourth of the nuclear generation in this region. The total loss of Seabrook Station No. 1 would significantly reduce the reserve margin of installed (and under contract hydroelectric import) capacity for the six state New England ISO region.

**Response:** *The NRC and other Federal agencies have heightened vigilance and implemented initiatives to evaluate and respond to possible threats posed by terrorists, including the use of aircraft against commercial nuclear power facilities and spent fuel storage installations. Malevolent acts remain speculative and beyond the scope of a NEPA review. The NRC routinely assesses threats and other information provided by other Federal agencies and sources. The NRC also ensures that licensees meet appropriate security-level requirements. The NRC will continue to focus on prevention of terrorist acts for all nuclear facilities, rather than site-specific evaluations of speculative environmental impacts resulting from terrorist acts. While these are legitimate matters of concern, they will continue to be addressed through the ongoing regulatory process as a current and generic regulatory issue that affects all nuclear facilities and many of the activities conducted at nuclear facilities. The issue of security and risk from malevolent acts at nuclear power facilities is not unique to facilities that have requested a renewal to their licenses because these issues are being addressed on an ongoing basis for all nuclear facilities. These comments are not within the scope of this environmental review and will not be evaluated further in development of the SEIS.*

## **11. Comments Concerning Safety Issues and Aging Management of Plant Systems (SAF)**

**Comment I-02-SAF:** Just a couple of other points I'd like to make. As part of your review, I would hope that you would determine that this plant is in full compliance with its current design basis in all regards, and how will we find that out? How will we know what the design basis is and whether the plant is in compliance with it?

This plant, like so many of them, went through any number of changes as a way of sort of being designed as it was being built in some respects. So how will we know that? It seems to me that that will have to be demonstrated.

**Comment K-02-SAF:** Seabrook, and I don't think I missed it, but I've been wrong in the past, there are no drawings that identify the buried pipes that are part of the buried pipe inspection program. So I don't think there could be any meaningful intervention contentions filed by the present deadline, and for the NRC to accept this application that is so extremely deficient in

reality and from an engineering standpoint, borders on irresponsibility.

I have a few examples, and by the way, I have taken a few hours to go through, I believe it was somewhere around a 1,800 page document of the license renewal. I would just like to point out some of the technical shortcomings, and again my expertise is not on severe accident management. It's more on systems, systems interaction, mechanical systems, electrical systems, cabling, requirements for cabling and so on and so forth.

Let me -- and by the way, just for informational purposes and this may be informational also for the Nuclear Regulatory Commission, that Congressman Markey and I believe Congressman Hodes might be involved with it.

But Congressman Hall from New York, a few other Congressmen from New York, Congressman Peter Welch from Vermont have requested the GAO, which is General Accountability Office, to investigate the adequacy of the NRC's program for buried pipe inspection program.

And I have been working very, very closely with the General Accounting Office in identifying shortcomings of the proposed programs that the NRC accepts and considers adequate for buried pipe inspection. And working with the GAO, we found, and even though I've been working with this for three or four years, we find new stuff.

It's interesting. It's repeated in the Seabrook license renewal application. If we look at the Seabrook's application, for instance, for buried pipe, very interesting in the fact that buried is not even defined within the regulation. Nobody knows what "buried" means. We saw the confusion up at Vermont Yankee, where they said we didn't have buried pipes.

Well, that resulted in some criminal investigation against some people. Unfortunately, some of them are friends of mine who I used to work with. But buried is not defined. Does "buried" mean in contact with the soil? Yes, it does mean that among other things. Does it mean that if it's in a pipe trench, a concrete trench that's located 14 feet underground, is that considered buried? We don't know.

Buried pipe does not necessarily include piping that contains highly radioactive material. Buried pipe only covers those items that are listed within the scope of the license renewal, which I believe is 10 C.F.R. 54.4. So buried pipes containing radioactive material are not necessarily covered by the license renewal application, and that is reinforced by the license renewal application.

Another example, and again this is something that I just found out recently, that the buried pipe and tank inspection program only covers carbon steel and stainless steel. It does not cover other materials such as titanium, bronze, copper, nickel, aluminum and other exotic materials that are used in vital systems at the Seabrook plant.

So Seabrook conveniently says, and NRC buys it, that it only covers steel or ferrous material

including cast iron. But it's not going to cover any fiberglass pipe or any of the other exotic metallic materials that are used in safety-related systems.

Now we've seen a lot of recent information on cables that are, and it's interesting how when we go to piping, they use the term "buried." But when we go to cables, they use the term "inaccessible." Well, I think we need some consistency here between piping and cables. Really, the intent to protect the public health and safety is it should be inaccessible piping and not buried piping. There's a lot of inaccessible piping.

But let me just move on to show and demonstrate how the NRC can ignore protecting the health and safety of the general public. By the way, I'm not here to close Seabrook or to stop its license. My only intention is to assure that Seabrook operates safely for as long as it continues to operate.

But I've recently identified a shortcoming with respect to vital cables contained within these nuclear power plants. We have many vital cables that go out to supply motor operated valves, vital motors and many pieces of vital equipment.

The NRC has recently acknowledged that some of these vital cables are running conduits that are underground, and many of these conduits, and in fact I've heard from the NRC 95 percent of the plants, including Seabrook, these cables are submerged. May be submerged under water, and at Seabrook it's even worse, because that water contains high salinity levels because it's right on the ocean.

This is a clear violation of NRC requirements that are specifically stated in 10 C.F.R. 50, Appendix B. So the NRC says well, Vermont Yankee, where it was originally identified -- well not originally identified, but recently identified in an inspection report. The NRC says "It's okay to violate the regulations. You can continue to operate because we consider the risk to be low."

The NRC does not have the authority within the regulations to say you can violate those regulations without going through the exemption process, which is under 50.12, to allow a plant to continue to operate outside of the regulations of 10 C.F.R. 50, Appendix B.

**Comment K-03-SAF:** Now, let's contrast that to Seabrook. Seabrook is violating the regulations. They're emitting hazardous substances -- tritium and possibly other -- which are unmonitored that are a health hazard.

So, what does the NRC Office of Enforcement do? They clearly identify it's a violation of regulations. Same as with cable. And they issue them a severe non-cited Green violation, but they don't make them put out the cigarette. That thing is still leaking tritium. In the same respect, we have the cable issues, which Mrs. Grinnell just talked about, and we have cables that are clearly outside their capability to operate per 10 CFR 50 Appendix B, Criterion I think is 15 and 16, Design/Control/Inspection. The NRC knowingly allows these plants to operate outside of its design basis. We know that the cables must be qualified in order to determine whether that plant could safely operate and its emergency equipment will properly operate.

I've just got so many examples -- the buried pipe inspection program -- we just found out and again working with the General Accountability Office that the buried pipe inspection program only covers steel pipes. Well, they've got every other kind of material pipes and then the real shocking thing that came up in the GAO investigation is the buried pipe inspection program only looks for external corrosion. So Seabrook says -- We'll look at external corrosion when the thing fails -- is basically what they say. It just goes on and on and on. We need a regulatory agency that will actually look at their regulations, enforce their regulations and if the plant is not compliant with those regulations change the regulations or shut down the plant until the plant can operate.

Again, with this license renewal application -- it's just a license to continue to operate outside of the regulations. The NRC accepts, as Mrs. Grinnell said, Seabrook's program and other programs like Vermont Yankee who have observed water in manholes. They accept -- We'll look at the manholes once every two-years to see whether there's any water in. If there's any water in there, we'll pump them out. Use a little engineering common sense. When you have manholes connected by conduits that contain cables and if I have water in each end of the conduit or the manholes and I pump it out and it's good for another two-years -- how do we ever, ever know that those cables are dry? We don't.

Take a look at the Brookhaven report, which is sponsored by NRC research. They say -- You must take a look and determine if these cables are submerged. Nothing is being done presently or for the next 40-years other than Seabrook says -- We'll look at them every once in awhile and see if they're dry. If not, we'll pump them dry and we'll continue to generate those mega-dollars everyday.

I can go on and on on the shortcomings of this application. The fact that insufficient information is provided in there for anyone to determine whether this plant is safe -- whether it is in compliance with the regulations. I think that the NRC needs to give a hard look at how they take enforcement action and they cannot just turn a blind eye to clear regulations, whether it be environmental qualifications or whether it be 10 CFR 50, 55(a) for piping inspections and leaky terminations, structural integrity of pipes. There is no assurance. I was in the Navy, as Mr. Bo Pham was in the Navy. Those nuclear power plants -- we slept less than 100 feet away from them. Those were safe. They were regulated properly. They were operated properly. When I got out of the Navy and I saw how these power plants were built and not regulated -- I was totally shocked. This is a different world from the Navy program. It's my belief that unless this regulatory agency can really do its job -- enforce its regulation -- that these plants should not continue to operate as they are right now with unqualified cables and pipes in unknown conditions leaking God knows what. Thank you.

**Comment K-05-SAF:** Will the NRC provide these drawings [referenced on page 2.1-6 of the LRA] for our experts review?

Our experts also need all drawings of all inaccessible cable runs to determine if the cables are properly addressed in the LRA.

The NRC uses the term “inaccessible” for cables and “buried” for pipes. Why the distinction?

Why is the buried pipe inspection program limited only to steel and stainless steel (including cast iron)?

How does the NRC define “buried” vs underground, in enclosed trenches, encased in concrete, etc.?

Are there other tanks within the scope of 10 CFR 54.4 constructed from “non-steel” materials?

Are there other materials used for buried pipes?

Why does the NRC not require inspection of internal corrosion of buried pipes?

Which tanks are covered under this program?

How does the NRC assure the structural and physical integrity of these buried pipes?

How can the public be assured that all vital cables within the scope of 10 CFR 54.4 are qualified for long term operation when submerged or exposed to moisture.

How can the NRC justify not inspecting more than an estimated 90% of the vital cables that are most susceptible to submergence and failure?

How can Seabrook justify violating NRC requirements (10 CFR 50 Appendix B)?

How does the NRC rationalize not inspecting more than an estimated 95% of vital instrument cables?

How can the NRC permit these cables to operate in violation of NRC regulations for up to two years?

Even if the “manholes” are drained, what assurance does the public have that other low points are free of water?

**Comment R-01-SAF:** When Seabrook submitted their application 20-years in advance of their license expiration -- which would bring the plant to 2050 -- we were very aware that the parts and the underlining underpinning construction foundation of this plant has parts from the 1970s. We looked over some recent inspection reports to look at how NextEra was managing their component systems and parts. What was immediately brought to our attention after the last refueling and inspection report was that NextEra was cited for submerged electrical cables in two-vaults that were underwater -- underwater, which is saline, which is highly corrosive.

So, what we're looking at here is inaccessible electric cables that are in water that is known to cause early failure. So, we thought what's the most responsible thing to do here? We looked into some recent research. We looked into what the NRC was doing and the NRC had actually

contracted/sponsored a study with the Brookhaven National Labs and asked them to assess the early cable failures before the 40-year license expiration and to analyze which cables, how many -- but they didn't actually do that because they were a research institute and what the generic letter requested was not to find/locate on the schematics every buried/submerged underground pipe and electrical cable -- it was to identify the ones that are already failed.

So, what we needed to know up-front was how many have failed, where are they, what manufacturers are most responsible. What were the years of the greatest failure? 1970s. We still don't know what manufacturer manufactured and what usage NextEra has. What we do know is that none of the cables that are submerged at Seabrook were qualified for submersion. They are not marine cables. They are not qualified, which means that the plant is now operating outside of its design basis and in violation of Federal Regs. The NRC has done a very minor citation. There is no fine. They were asked to pump out the water and come up with a long-term solution. What hasn't happened in this industry -- we haven't identified where all the cables are. How many there are? How many are submerged? And what condition they're in.

The reason we can't do that is because the only way this can be done is visually. The Brookhaven National report reported that the surveillance testing, the in-service program, the maintenance rule, the aging program -- does not identify the cables before failure. It is impossible to do. So, short of instituting -- which has not been done by the NRC -- a responsible program that is based on a regulation that would enforce the industry to actually: know where all the cables are, the condition of them. We cannot go forward with this.

**Response:** *The commenters raise several concerns regarding safe operation of Seabrook and their aging management programs. The NRC's environmental review is confined to environmental impacts associated with the extended period of operation for Seabrook. These comments provide no specific information about environmental issues or the environmental review. Operational safety issues, including current compliance with NRC requirements, are addressed as part of the ongoing regulatory process, and are outside the scope of 10 CFR Part 51. Issues related to the aging of structures and components are evaluated as part of the license renewal safety review process, and are also outside the scope of 10 CFR Part 51. The comments provide no new information within the scope of the environmental review and, therefore, will not be evaluated further in the context of the environmental review.*

## **12. Comments Concerning License Renewal and Related Processes (LIC)**

**Comment D-01-LIC:** I'm a former resident of New Hampshire for 23 years, and also I was one of the petitioners that filed with the U.S. Nuclear Regulatory Commission yesterday under the provision for petition for rulemaking, in a request that the agency change the current rule under 10 C.F.R. 5417(c), from 20 years in advance of the expiration date to ten years in advance.

And one of the key reasons that we've requested this petition for rulemaking is precisely because a premature application will do nothing but provide meaningless data for this agency's consideration.

This application is the equivalent of green fruit. It's not ripe. It needs more time. It needs more time to consider a whole host of issues, ranging from system structures and components at this plant that you're required to look at, in the context of aging.

But more particularly, I would like to just say a few words about the due process issue. One of the key concerns that we have here with an application that's coming 20 years in advance of the expiration date is that it excludes a whole generation of citizens, commercial interests from participating in this process.

I mean people who should be here are in grade school right now, particularly when you're talking about a federal action that will not occur until 2030. So it's alarming that -- well first of all, the slide that you had up earlier with regard to why 20 years, I've participated in many of these license renewal proceedings.

We've been an intervener before, and that's the first time I've ever seen this slide. It was not reassuring that the basic message of the slide was because we say so. What you've addressed here is that -- I mean you've determined that 20 years of operational and regulatory experience provides an applicant with substantial amounts of information.

But I would refer you to the National Environmental Policy Act, the reason we're here in the first place, provides that at Section 1501(b), it says NEPA procedures must ensure 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, public scrutiny are essential to implementing NEPA.

Most important, NEPA documents must concentrate on issues that are truly significant to the action in question, rather than amassing needless detail. What you have before you in this application, now 20 years before the time of expiration, it basically constitutes nothing but nonsense, an amassing of needless, meaningless detail.

Let's look just in, you know, a license renewal application for a nuclear power plant submitted 20 years in advance of its expiration date cannot, according to Section 1500.2 of the same Act -- provide to the fullest extent possible is the requirement of NEPA -- accurately and reliably evaluate what's foreseeable, particularly for the renewable energy alternatives that the representative from New Hampshire has already addressed as a tremendous resource.

I mean essentially what this application currently puts forth in its claim that the contribution of wind and solar to the consideration of alternatives under NEPA, they fix it -- the nonsensical comparison is much like saying the Model T is going to be what we have for the next 20-40 years.

It casts aside any kind of consideration for advancement. But in fact, it's not just -- we're not just pulling this out of the air. The Department of Energy's own National Renewable Energy

Laboratory, in its assessment, particularly of offshore wind, is that the contribution for the region of interest that we're discussing here under NEPA is -- ranges from good to superb.

This basically still -- this all contradicts what the applicant has put forward for your consideration. They don't even mention that the potential here, as rated by the Department of Energy, is that this offshore wind resource is superb.

But, you know, it remains a concern that you have -- you've got an application here that's before you, and now it's your duty under NEPA to rigorously explore and objectively evaluate all reasonable alternatives and for the alternatives that are to be eliminated by the detailed study that you have before you, you have to discuss the reasons that they have been eliminated.

Frankly, that's why you've got green fruit on your hands right now. There's really no rational, reasonable way to assess a resource 20 years out from the time that you're talking about this federal action to be considered, to be in effect.

So I urge you, as we have petitioned the agency, to essentially reject this application as premature, as simply -- in many sections of it, simply an amassing of needless detail, and let's come back to this issue when the time is right, as the petition has suggested, in 2020.

**Comment D-02-LIC:** First of all, it is beyond the scope of this proceeding in its Environmental Review to address the issue of there's no management for the nuclear waste that would be generated in that 20-year cycle -- beginning in 2030/2050. So, we have an unmanaged issue and it is beyond the scope.

We are also not allowed to address the issue within the licensing process about security, even though we know and I think it's been referenced by an expert here today -- but clearly it was already a public document by one of the federal labs -- I believe it was Oak Ridge. No, I'm sorry, it was Argon National Lab -- that the reactor design for Seabrook was never designed nor constructed nor evaluated for fire and explosion from a direct impact from an aircraft. Matter of public record. That public record disappeared for a while after 9/11, but it is now back a part of the NRC public document room.

Now, again, we have what appears to be an unmanaged problem that's beyond the scope of being addressed within the context of extending this reactor's operation another 20-years. Also, you've heard comment and concern with regard to an evacuation plan that's proved to be a very prickly problem -- a lot of uncertainties. That too is now beyond the scope of this proceeding. And we can go on. There are several that present this unmanaged problem for the NRC and I think that it begins to suggest that we have an obsolete and antiquated review process that has to be challenged. I think that you're getting some of that challenge tonight.

As one of the petitioners to change the rule that facilitates Florida Power and Light submitting an application 20-years in advance of the expiration date -- I suggest to you that this is yet another one of these streamlining of a very problematic issue that does not serve to benefit public health and safety and security nor does it offer adequate protection to the environment necessarily.

But it provides and facilitates a conveyor belt for this licensing process. As a consequence, that has to be challenged today. We have, as of yesterday, formally challenged the 10 CFR 54 Part 17(c), which says you can do that. But, I just want the Agency, the public, the various experts on both sides to see that there appears to be a pattern here that facilitates this process, but not necessarily to the benefit that is mandated by Congress or presented to us publicly.

I'll just close my remarks by pointing out one other piece here. I'm just going to read into the record one of the aspects of this 10 CFR 54 Part 17(c) that presents a problem for those of us who would like a fair airing of a relicensing process -- filing for license renewal midterm of the current license finds the licensee at a place in this system/structure/and component service-life where the industry experiences few failures that 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/construction defects has passed. That's what we call early component failure in what is traditionally called a bathtub curve. I'm sure Dr. Brown is quite familiar with the bathtub curve.

In that early failure rate, it's largely irrelevant to aging management in the proposed extended period of operation. The anticipated end-of-design-life and aging issues have barely, if at all, begun to emerge. We're basically at the bottom of this bathtub curve where you have a high incidence early on as you work the bugs out -- whether it's a nuclear power plant or an electric toaster or an early model of a car -- there are these early failures. But now we're at the bottom of that bathtub curve that has been described to us as a highly efficient period of operation of any facility.

So, little or no 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 system structures and components, such information flow rates increase rapidly in the fourth quarter and toward the end of the license. This system/structure/component reliability progression is well known and often illustrated in the so-called bathtub curve.

Additionally, corrosion risk is a function of time. For example, the Beaver Valley Nuclear Power containment was discovered to have been rusting from the outside of an inner liner that was inaccessible for inspection. So, the evidence of this through-wall corrosion on the containment component surfaced when a bubble appeared in the paint on the inside of the containment. So, it was a outside/in corrosion process that escaped inspection and maintenance until it was discovered by a bubble in the paint on the inside.

Now, similarly -- I was very involved in the Seabrook controversy. It was well known to us that the pores in that concrete were facilitated by such things as cutting of rebar that -- there were a whole host of issues that raised concerns about the integrity of both the construction and the documentation of quality control in that facility -- a whole host of systems and structures and components. And I submit to you that our concern that this review process now is coming at the bottom of this bathtub where things are relatively stable, but the Agency is proposing to give its approval for the latter life -- escaping the operational experience of the latter life of this plant for

the next 20-years, we believe is to be responsible, both in terms of how this application is being presented and how it's being reviewed.

We strongly urge you to again -- we are asking the Agency both formally and in its review process to reject this application. It's premature. It doesn't provide the staff with enough information to give a fair assessment of how this plant can be or if it can be well-managed in this period of 2030/22050.

**Comment E-05-LIC:** So just to sum up, I don't want to take too much time. But just for the record, we do recommend no action at this point. I know that is one of the options you have. We do feel this whole license renewal process to be highly premature.

It cannot possibly take into account all the many key factors affecting plant maintenance, reliability and safety from the deterioration of vital plant systems and infrastructure, to climate change and future power needs as I've described over the next 40 years.

So that's why we are also petitioning the NRC to suspend the process now in the public interest. We need to keep in mind we are talking about decisions now that will affect future generations, people that aren't even born yet, our children and grandchildren. Most of us here won't even be alive when this plant is still chugging away under this proposal.

So we need to be thinking very carefully about what the impacts will be for their benefit, not just for a current corporate interest that clearly has some financial benefit or they wouldn't be here advocating for this at this time.

**Comment I-01-LIC:** My questions and I guess there are two NRC lawyers here. I particularly address this to them. How can you base your reasonable assurance on merely substantial information? When you fill out an application for college or practically anything else, you're asked for complete information, not substantial information.

Well, the answer's obvious. You can't have substantial -- you can't have complete information, because we're trying to relicense this plant 20 years before that license will become effective.

One of the key questions, as many have said here, is what's going to happen to age-related degradation on systems and components and structures over the next 20 years?

We can't know that. So again, I want to support those who have said that this application is extremely premature. I don't know how you came up with a rule that said you could apply 20 years in advance, you know. Can I apply 20 years in advance for my next motor vehicle license need? I don't think the State Department of Motor Vehicles would permit that.

And we know that as time goes on, as radiation takes its effect and other wear and tear occurs, we are going to have age degradation of important structures and components. We know the Yankee Road plant had an embrittled reactor vessel which led to its shutdown. But would we have been able to detect that if we were licensing it 20 years before that became known? I mean how long did it take that to develop?

So I have a real grave concern of whether you can meet the requirements you have to have for reasonable reassurance lining, just on the basis of accepting substantial information rather than complete and accurate information.

Obviously starting at this point, in 2010, 30 years, 20 years before the license is to be renewed, you can't possibly have that. So I think this is extremely premature.

The other reason you give for starting 20 years ahead is that it takes maybe that long for it to come up with alternative supplies. Well, you've heard others speak about that, and there's going to be technological progress. There's going to be developments in many areas, whether it be solar or wind or other things that we can't foresee now.

We're really way out ahead of ourselves, and I think being highly irresponsible in undertaking this license review here in 2010, when the license will not be renewed for another 20 years. I was interested to hear you say there are a couple of other plants that have applied early. But I didn't hear anybody has applied as early as this one. So I think that's a real problem.

**Comment Q-01-LIC:** What is the hurry? I am sure that I'm not the only member of the public who was surprised to see a request for an extension of a license that is still valid for another 20-years. To apply for an extension 5-years before the expiration date would not surprise me, but 20-years -- that is strange. The only logical explanation I can think of is that this is an insurance policy against possible problems with the plant in the next 40-years and/or that the owners of the plant see what all outside experts already know, that in fact nuclear power is too expensive and will not be able to compete with other sources of power in the future, even as recently as the next 10-years.

**Comment S-01-LIC:** Then, in the last few years the industry, as you well know I'm sure, launched a new political offensive to help assure its comeback would not be derailed again by public opinion. It sought even larger tax subsidies with a lot of help from the last administration. A streamlined licensing process that gives an even shorter shrift to public input than existed previously. And they moved quickly to extend the lifetime of existing plants. I believe there have been 50, so far, that have applied for and received operating license extensions. Ironically, those extensions will only increase the chances of a serious accident. An accident that could be a PR nightmare for the nuclear industry -- not to mention what it might do to the people who live nearby.

There were reasons that your predecessors set a lifetime of 40-years before a plant should be decommissioned. It wasn't whim. Do any other power generating plants -- oil, coal -- have decommissioning dates set by law? I haven't been able to find out, but I don't think they do. It's nice to see that manners -- and I'm mentioning this mainly because that's the way it felt this afternoon, not necessarily at the beginning of this evening's session -- or perhaps maybe just improved PR device -- although after the beginning of this evening's session, I doubt that -- has crept into the NRC's public hearing process since the 1970s, but I would hope that's not all that's changed. I would hope that you -- you NCR [sic] representatives -- will go back to Washington and please don't just review the issues raised here -- which you have to admit, at

least this afternoon and beginning already this evening, are substantial and thought-provoking. You may not be able to stop nuclear companies from applying for absurdly premature license renewals -- although let's hope that a rule change will -- but you certainly don't have to smooth the way for their approval. You can, with diligent study, recommend -- Hey, wait 10-years, try it then. Please consider as you deliberate that you have not heard -- at least not this afternoon and not so far this evening -- a single argument today directly related to why an operating license should be extended 20-years before it expires. Not a single argument. Even the handout from the company that I picked up out there that's seeking the extension does not make a lot of sense. So they can plan ahead, they argue. Well, does that mean that without an extension they plan to let things fall into dangerous disrepair? In fact, your very own PowerPoint fails to provide even a substantial -- a word that got bantered around earlier today - reason much less a complete one.

The fact that the folks at Seabrook provide jobs, give money to the United Way and are generally good guys and good community members does not address the issue. I am sure that 10-years from now they will still be good guys and loyal Chamber of Commerce members both in Exeter and Hampton.

The only final thing I have to say is in your PowerPoint, you have on page 21 or slide 21 -- the Final Agency Decision -- the Commission considers Safety Evaluation, Environmental Impact, NRC inspections, recommendations from the ACRS -- how about also considering public input?

**Comment Z-01-LIC:** I am opposed to extending the license for Seabrook for 20 more years, especially since, there are 20 years still remaining on the current license and many questions remain unaddressed. In particular:

- This process highly premature, given no one can reasonably predict what condition plant infrastructure will be in 20-40 years in advance, let alone future energy policy planning.
- Ongoing problems like emergency generator malfunctions and potential future ones like inaccessible submerged electrical cables need to be addressed before re-licensing the plant.
- Neighboring residents should not be exposed to another 20 years or routine radioactive emissions, let alone the risk of catastrophic accident, when cheaper, safer and sustainable power sources will likely be available (and necessary!) in coming decades.
- We should not be committing to generate another 20 years of high-level radioactive waste, when there is NO viable plan for long-term storage of existing wastes, and the plant's waste dump (as well as the reactor!) is dangerously close to a increasingly rising sea level and violent storm potential.

I believe that over the next 20 years, we will have other more sustainable and safer alternatives available to us for energy. These must be considered. The current plant must face deteriorating structures with plans to test and replace

## WHETHER THE LICENSE IS EXTENDED OR NOT!

Please do not extend the license now, and continue to ensure that the owners take responsibility for addressing the above concerns.

**Response:** *These comments deal with the timing of Seabrook license renewal request. Section 54.17(c) of Title 10 of the Code of Federal Regulations (10 CFR 54.17(c)) allows licensees to submit license renewal applications up to 20 years before the expiration of the current license. The Commission established the earliest date for submission of license renewal applications after soliciting and considering comments. Power Plant License Renewal, Final Rule, 56 Fed. Reg. 65943, 64963 (Dec. 13, 1991). In the 1991 statements of consideration for section 54.17(c), the Commission rejected the suggestion that 20 years of operational and regulatory experience with a particular plant was an insufficient period in which to accumulate information on plant performance. The Commission rejected suggestions that new information about plant systems and components as well as age-related degradation concerns discovered after the renewed license is issued would not be considered or would not be factored into a plant's programs. The Commission stated that the licensing basis of a plant will continue to evolve throughout the term of the renewed license to address the effects of age-related degradation as well as any other operational concern that arises. Further, licensees are required to continue to ensure that the plant is being operated safely and in conformance with its licensing basis. The NRC verifies such safe operation through its on-going regulatory oversight process.*

*In the 1991 statements of consideration for 54.17(c), the Commission also rejected suggestions that a 5-year or even a 15-year time limit for filing renewal applications would be adequate. The Commission stated that in establishing the earliest date for license renewal applications, it considered the time necessary for utilities to plan for replacement of retired nuclear plants. The Commission found that the lead time for building new electric generation facilities is 10-14 years depending on the technology.*

*When the license renewal rule was revised, the Commission again solicited comments on the earliest date for filing license renewal applications. After considering the comments, the Commission concluded that there was no new information warranting a change in the earliest date for license renewal applications, either to make it earlier or later. Nuclear Power Plant License Renewal; Revisions, Final Rule, 60 Fed. Reg. 22461 22487-88 (May 8, 1995). Currently, a petition for rulemaking requesting that the Commission amend 10 CFR 54.17(c) to establish a ten year time limit for filing license renewal applications is pending before the Commission. The Commission published a notice of receipt and docketing of this petition on September 27, 2010 (75 Fed. Reg. 59158).*

*These comments are not within the scope of the license renewal environmental review and will not be evaluated further in development of the SEIS.*

**Comment N-02-LIC:** On the flip side of that -- this is an enormously fragile ecosystem. There are just 18-miles of the New Hampshire shoreline that we hold very, very dear. There is the

Great Bay Estuary that is really at a tipping point in terms of its environmental quality. So, we would ask that the NRC and its environmental and safety experts listen with great care to the concerns that will be raised throughout this process about the impact on this extraordinary part of our state and our country.

I think more than anything else, people in my district want to know that the plant is well-run and that the people there hold as dear as my constituents do, this part of our state and our country. They also want to know that the NRC is doing its job. I can't stress enough as an elected official how concerned people are right now that government is capable of doing what the citizens trust it to do. I can't think of a more important example of a nuclear power plant sitting so close-by to so many levels of our ecosystem and human life.

So, with that I just thank you all for being here. I look forward in any way I can assist from the state government point of view in making sure that this process is as complete and informative for all of you as I can. I would be happy to do that and I know my other legislatures and the Governor's office feel the same way. To my constituents who are in the room -- I hope that you will bring forward not only to the NRC, but again if the Senate or the House or the Governor's office can be helpful in facilitating conversation, as that may need to happen, I look forward to doing that as well. More than anything, we just want to know that we are keeping New Hampshire beautiful and safe. Thank you.

**Response:** *The commenter is encouraging the public participation process during the Seabrook license renewal process. Public involvement is a very important part of the environmental evaluation process for license renewal. Although public participation and comments are invited and encouraged throughout the environmental review process, the public is specifically invited and encouraged to provide input at two critical stages in the environmental review: during the scoping period and following the publication of the draft SEIS. The scoping period for the Seabrook environmental review occurred from July 20 to September 21, 2010. Comments received during the scoping period that have been determined to be in-scope for the environmental review will be discussed further in Appendix A of the draft SEIS.*

*Following publication of the draft SEIS, the public will have an opportunity to review the findings and provide feedback. The NRC staff places a notice in the Federal Register and on the NRC website that the draft SEIS has been issued with instructions for the public and other interested parties on how to obtain copies. Copies of the notice and the draft SEIS are also sent to those people that requested a copy during the scoping process.*

*Two public meetings will be held during the public comment period near Seabrook to provide an overview of the draft SEIS and to accept additional public comments on the document. Comments received will be reviewed and, if appropriate, incorporated into the final document. All of the comments on the draft SEIS will be listed in Appendix A of the final SEIS, and addressed, as appropriate.*

*This comment provides no new and significant information and will not be evaluated further in the development of the SEIS.*

**Comment Q-02-LIC:** Financial viability. What independent energy experts except those who are employed by nuclear power industry already agree is that nuclear power is currently not able to compete with other energy options on a free-market basis, were it not for the federal government, which is providing it with large low-risk loans and insurance protection against liability. This type of power is already the most expensive kind available and will not improve significantly in the near term future, if at all. That is why private investors have rejected even very generous options to build a new power plant over the last 30-years. This energy is not renewable and therefore not sustainable and all indications are that at least in the United States and most of the rest of the world, it will stay that way.

**Comment Q-04-LIC:** Finally, an alternative suggestion. As many of you present today already know, most European countries have already turned their backs on nuclear power for many of the reasons already mentioned above. However, in Germany, which is phasing out its nuclear energy industry, a number of environmental groups have supported the extension of nuclear power licenses, if they are safe enough to operate, in exchange for the payment into a renewable energy fund of some portion of the windfall profits that operators and owners will reap as the result of a license extension. Since most nuclear power plants are built for a specific number of years in operation and have been budgeted and paid for during these years, a license extension provides extra operating years and extra revenue. It would seem only a fair deal to ask for some of that windfall profit, say 50%, to be invested in a fund for truly renewable energy projects should an extension be granted.

**Response:** *The decision to seek a license renewal rests entirely with nuclear power facility owners and typically is based on the facility's economic viability and the investment necessary to continue to meet the NRC safety and environmental. The NRC makes its decision to grant or deny a license based on the determination of whether or not the applicant meets the environmental and safety requirements in the NRC's regulations.*

*These comments are not within the scope of the environmental review and will not be evaluated further in the development of the SEIS.*

**Comment K-01-LIC:** My concerns are the adequacy of maintaining this plant in a safe condition for the next 20 years, and if the license renewal is granted, which the NRC has never even hinted at not granting one, I want to assure that that plant is operated safely.

Now it was said earlier by some of the NRC representatives that their objective is to protect the public health and safety, and I agree that is their mission. Their mandate by Congress is to protect the health and safety of the general public.

After working in this industry on the inside, on the outside, as a consultant, as an expert witness, I've come to the belief that the NRC is not fulfilling their Congressional mandate of protecting the health and safety of the public.

I'd like to provide a few examples, and again it's very, very bothersome to me that I see September 20th as a deadline date for formal intervention to oppose this license. Believe me, it costs millions of dollars to effectively intervene in opposing a license renewal application. The purpose of this whole license renewal application, as was stated earlier by the NRC personnel,

is to assure that the CLB, which is the current licensing basis, which is defined in 10 C.F.R. 54.3.

The current licensing basis includes all the applicable regulations, and the public needs to and I believe the NRC needs to, in order to protect the public health and safety, assure the public that this current licensing basis is maintained for the next 20 years, and if the license renewal is granted, for the 20 years following that.

Again, I mentioned I was an expert, am an expert named in Indian Point litigation related to buried pipes and vital cables, and other electrical devices including transformers. The current licensing basis is not available. In contrast to what Jeremy said, the current licensing basis includes, and he said these documents were available, it includes all regulations.

All the regulations of 10 C.F.R. Part 2, Part 20, Part 26, Part 50, Part 54, Part 72 and all the other regulations that are applicable to Seabrook. The current licensing basis also includes such items as the final safety analysis report, orders and anyone can look under 10 C.F.R. 54.3 and find the definition.

What is really strange about the current licensing basis, Mr. Pham is here and a few years ago, I wrote Mr. Pham a letter. Could you please identify for Indian Point's Unit II and III what the current licensing basis was, and what regulations are applicable to Indian Point's Unit II and III.

His response, and again these responses are public information, can be found on ADAMS. Mr. Pham's response, Mr. Pham is sitting right in front of me, was one can find the current licensing basis if you go into ADAMS. That is not an accurate statement. One cannot find the current licensing basis in ADAMS.

There are certain portions of the current licensing basis that are not in ADAMS. The FSAR, part of the current licensing basis, is not in ADAMS.

In the Indian Point application, a license renewal application and I'd like to make a comment right here, and I have reviewed various applications for license renewal, that this particular one for Seabrook is the most deficient application I have reviewed so far.

Let me just provide just some contrast between this application at Seabrook and Indian Point, and I don't consider Entergy to be one of the more superior operating companies in the country. But at least their application identified things that an intervener who's concerned about safety would want to know about before it was able to file a meaningful contention.

For instance, in the Indian Point license renewal application, all the drawings that identified the buried pipe that are within scope of the buried pipe and tank inspection program were supplied.

In fact, there were about, and don't hold me to this number, somewhere between 50 and 100 detailed drawings of Indian Point systems, and this is not only mechanical systems, but also included the electrical systems that were within the scope of license renewal.

**Comment K-04-LIC:** Is it possible that a member of the public can obtain a copy of the CLB to assure it is not being changed by the License renewal process?

How can we obtain a copy of the most recent FSAR, Technical Specifications and “docketed licensing correspondence”?

How can we obtain a copy of the regulations which address inspection for inaccessible pipes as referenced by 10 CFR 50.55?

**Response:** *These comments deal with the availability of the current licensing basis (CLB) for Seabrook. Defined in 10 CFR 54.3, the CLB is the set of plant-specific information required by the NRC to ensure that the operating plant shows compliance with and operates within the NRC requirements and plant-specific design basis. The CLB includes all applicable regulations, orders, license conditions, exemptions, technical specifications, and the most recent update to the plant’s final safety analysis report (FSAR). Publicly available portions of the CLB can be accessed electronically from the NRC’s Agencywide Documents Access and Management System (ADAMS). Publicly available portions of the CLB, particularly documents docketed before 1999, are available through the NRC’s Public Document Room (PDR) located at O-1F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852-2738. Examples of documents that are considered non-publicly available include those containing proprietary information, and those containing plant-specific security information. The ADAMS Public Electronic Reading Room is accessible at <http://www.nrc.gov/reading-rm/adams.html>. Persons who encounter problems in accessing documents in ADAMS should contact the NRC’s PDR Reference staff by telephone at 1-800-397-4209 or 301-415-4737 or by e-mail at [pdresource@nrc.gov](mailto:pdresource@nrc.gov). PDR staff can also assist members of the public in locating pre-1999 documents. Additionally, copies of NRC regulations and guidance can be accessed by visiting the Document Collection page of the NRC website. The Document Collection page is accessible at <http://www.nrc.gov/reading-rm/doc-collections/>.*

*Copies of the American Society of Mechanical Engineers (ASME) Codes referenced in 10 CFR 50.55a can be purchased from the American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016, or by visiting their website at <http://www.asme.org/Codes/>. Copies of the ASME Codes may also be inspected at the NRC Technical Library, Two White Flint North, Rockville, MD 20852-2738.*

*Drawings associated with Seabrook’s license renewal application are available at ADAMS Accession Numbers ML101620331, ML101620333, ML101620334, ML101620337, and ML101620329.*

*The staff notes that license renewal applicants are not required to compile their CLBs for purposes of license renewal. The Commission considered requiring license renewal applicants to compile their CLBs for license renewal, but concluded that such a requirement was unnecessary to identify the systems, structures, and components, important to license renewal. Nuclear Power Plant License Renewal, Final Rule, 56 Fed. Reg. 64943, 64952 (Dec. 13, 1991). The Commission reaffirmed this conclusion in the statements for consideration for the 1995*

*amendments to the license renewal rule: “After considering all comments concerning compilation of the CLB, the Commission has reconfirmed its conclusion made for the previous rule that it is not necessary to complete, review, and submit a list of documents that comprise the CLB in order to perform a license renewal review.” Nuclear Power Plant License Renewal; Revisions, Final Rule, 60 Fed. Reg. 22461, 22474 (May 8, 1995).*

*These comments are not within the scope of the environmental review and will not be evaluated further in the development of the SEIS.*

## **References**

10 CFR 50. *Code of Federal Regulations*, Title 10, *Energy*, Part 50, “Domestic Licensing of Production and Utilization Facilities.”

10 CFR 51. *Code of Federal Regulations*, Title 10, *Energy*, Part 51, “Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions.”

10 CFR 54. *Code of Federal Regulations*, Title 10, *Energy*, Part 54, “Requirements for Renewal of Operating Licenses for Nuclear Power Plants.”

National Environmental Policy Act of 1969 (NEPA). 42 U.S.C. 4321, et seq.

National Oceanic and Atmospheric Administration (NOAA). 2010. “Endangered and Threatened Wildlife and Plants; Proposed Listing Determinations for Three Distinct Population Segments of Atlantic Sturgeon in the Northeast Region,” *Federal Register*, Vol. 75, No. 193, pp. 61872-61904, October 6, 2010.

NextEra Energy Seabrook, LLC (NextEra). 2010. License Renewal Application, Seabrook Station, “Appendix E, Applicant’s Environmental Report, Operating License Renewal Stage,” ADAMS Accession Nos. ML101590092 and ML101590089

U.S. Nuclear Regulatory Commission (NRC). 1990. “Waste Confidence Decision,” *Federal Register*, Vol. 55, p. 38472, September 18, 1990.

U.S. Nuclear Regulatory Commission (NRC). 1996. *Generic Environmental Impact Statement for License Renewal of Nuclear Plants*, NUREG-1437, Volumes 1 and 2, Washington, D.C., ADAMS Accession Nos. ML040690705 and ML040690738.

U.S. Nuclear Regulatory Commission (NRC). 1999. *Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Main Report*, “Section 6.3 – Transportation, Table 9.1,

Summary of Findings on NEPA Issues for License Renewal of Nuclear Power Plants, Final Report," NUREG-1437, Volume 1, Addendum 1, Washington, D.C., ADAMS Accession No. ML040690720.

U.S. Nuclear Regulatory Commission (NRC). 1999a. "Waste Confidence Decision Review: Status," *Federal Register*, Vol. 64, No. 233, pp. 68005-68007, December 6, 1999.

U.S. Nuclear Regulatory Commission (NRC). 2008. "Waste Confidence Decision Update," *Federal Register*, Vol. 73, No. 197, pp. 59551-59570, October 9, 2008.

U.S. Nuclear Regulatory Commission (NRC). 2010. "Nextera Energy Seabrook; Notice of Intent to Prepare an Environmental Impact Statement and Conduct the Scoping Process for Seabrook Station, Unit 1," *Federal Register*, Vol. 75, No. 138, pp. 42168-42170, July 20, 2010.

U.S. Nuclear Regulatory Commission (NRC). 2010a. "Summary of Public License Renewal Overview and Environmental Scoping Meetings Related to the Review of the Seabrook Station License Renewal Application (TAC Nos. ME3959 and ME4028)," ADAMS Accession No. ML102520222.

U.S. Nuclear Regulatory Commission (NRC). 2010b. Memorandum, "Staff Requirements - Affirmation Session, 8:45 a.m., Wednesday, September 15, 2010, Commissioners' Conference Room, One White Flint North, Rockville, Maryland (Open to Public Attendance)," ADAMS Accession No. ML102580229.

U.S. Nuclear Regulatory Commission (NRC). 2010c. "Request for Scoping Comments Concerning the Seabrook Station License Renewal Application Review," ADAMS Accession No. ML102730657.

U.S. Nuclear Regulatory Commission (NRC). 2010d. "Waste Confidence Decision Update," *Federal Register*, Vol. 75, No. 246, pp. 81037-81076, December 23, 2010.

**Meeting Transcripts and Comment Letters**

The following pages contain the comments, identified by commenter designation and comment number, from the public scoping meeting transcripts, and written comment letters.

1 MS. BOWDEN-BERRY: Okay. With that, we'll go  
2 on to the second part of the meeting, and we'll take your  
3 comments. The first speaker that I have is Mary Lampert.

4 MS. LAMPERT: Hello. I'm Mary Lampert. I am  
5 Director of Pilgrim Watch, but I am not here in that  
6 capacity. I'm here to provide technical advice for C-10.  
7 Impacts, environmental impacts can be both from normal  
8 operations and also from accidents, design-based accidents  
9 and severe accidents.

10 I'd like to direct my questions and comments  
11 solely to severe accidents. There is a requirement of the  
12 applicant to do a severe accident mitigation analysis. It  
13 can be found in their application. In reading it, it's akin  
14 to reading a fairy tale. There is absolutely nothing in it  
15 that has a commonality of what one would expect of a severe  
16 accident from a nuclear reactor.

17 It is NRC's job in the SEIS to not just  
18 describe what the applicant did, and summarize it in a  
19 chapter, as has been done at other licensees. It is rather  
20 to do, and we expect a detailed analysis of this issue. A  
21 SAMA, that's the shorthand, they're required to analyze.  
22 It's a cost-benefit analysis, the consequences of off-site of  
23 an accident, and then weigh that against costs for mitigative  
24 measures that would help reduce risk.

25 So this is very, very important. The applicant  
26 used a computer code called the MAC code, MAC-S2. My

A-01-SAMA

1 question is I think it's necessary to justify the use of that  
2 code. First, it is not -- it was not held to the same  
3 quality assurance requirements of the American Society of  
4 Mechanical Engineering QA Program, requirements for nuclear  
5 facilities.

6 So therefore there is a very important  
7 question. It was designed solely for research. There is a  
8 paper on this by the author of the code. It was not designed  
9 for licensing. So therefore the question is why is it being  
10 used?

11 Also in the code, if you read it, go through  
12 it, there's no explanation of exactly how it works, which is  
13 a problem and your responsibility to explain to the public.  
14 The problem, there are many problems with this code, and it's  
15 not appropriate for use.

16 As it was used by Seabrook in this application  
17 to determine off-site consequences. Why? It's important,  
18 when you're looking at consequences, to understand  
19 atmospheric dispersion and deposition. The code has embedded  
20 in it a module called ATMOS, and relevant for you, that uses  
21 the straight-line Gaussian plume model, which assumes that  
22 wind blows like a beam of a flashlight.

23 NRC, DOE, the public, the world, meteorologists  
24 know that is not how the wind blows in a coastal location.  
25 Therefore, it is very important when you are doing your

A-01-SAMA  
cont

1 review, that you do site-specific analysis, analyses of plume  
2 distribution, meteorology in this area.

3           There have been numerous studies ignored by the  
4 applicant, but they cannot be ignored by NRC, of how the  
5 meteorology is on the coast of Massachusetts, New Hampshire  
6 and Maine, specifically discussing the sea breeze effect,  
7 which occurs here, increases deposition, number one, and also  
8 when it looks like the wind's blowing offshore, it's brought  
9 in sometimes 20 to 40 miles. Very significant, ignored by  
10 the applicants in their application.

11           Also ignored is the fact of how plumes travel  
12 over water, where they because of lack of turbulence, they  
13 remain concentrated, and as a result you can find, when there  
14 are northeast winds, deposition blowing down to the dense  
15 urban areas, such as a Boston, where you'd expect to find hot  
16 spots, or conversely up the New Hampshire coast, to densely  
17 populated areas such as Portsmouth and Portland.

18           This is ignored by the licensee. It cannot be  
19 ignored. Nor can it be ignored that they got their  
20 meteorological data from one source, the on-site  
21 meteorological tower, which simply will tell how wind is  
22 blowing on site, but not what happens to it off site.

23           So the data they used is essentially worthless.  
24 We expect and demand NRC to do more. The economic costs were  
25 also grossly underestimated, particularly the cleanup costs.  
26 The MAC-S2 models bases its assumptions on clean up, on WASH

A-01-SAMA  
cont

1 1400. Therefore, the DF factor, decommissioning factor,  
2 decontamination rather factor, is 15.

3 We want you to look at that. What is the DF  
4 factor that Seabrook has assumed? More importantly, what  
5 level of cleanup? They never talk about the level of  
6 cleanup. Would it be required to go EPA, 15 millirem a year?  
7 Are we going to 25? Are we going to 50? Are we going to  
8 500? Because what is allowable greatly affects the cost of  
9 cleanup.

10 A GOE report has reported that in fact there's  
11 no agreement between EPA and NRC. The public here wants to  
12 know. The public wants to know some other factors that were  
13 ignored. Where's the waste going to go? How much waste?  
14 What is the volume that is expected in a severe accident?

15 While you're looking for a place, how is it  
16 going to be safeguarded? That's a cost that's not accounted  
17 for. Are they going to put lead blankets over it? How is  
18 resuspension going to be covered? What about workers?  
19 Whereas WASH 1400 and the MAC-S2 code that they use for their  
20 cost calculations assume and was based on a weapons event,  
21 cleaning up; it was during the Cold War, of a weapons event.

22 That is the fundamental underpinning of the  
23 code, cleanup cost factors. However, there is a vast  
24 difference between cleaning up on a weapons event than  
25 cleaning up from a reactor event. A weapons event has larger  
26 particles, larger mass loading. They assumed, as the MAC-S2

A-01-SAMA  
cont

1 code assumes, the buildings will be hosed down and fueled to  
2 be plowed under.

3 This will not be allowed by the public, by  
4 CERCLA, by EPA. So let's get some real cost here, real cost.  
5 You don't have real cost.

6 Also underestimated are the health costs. Look  
7 at, and we want to know. This has to be site-specific. We  
8 cannot have the health costs that are assumed in the code,  
9 that go back to understandings of the 1960's, at best early  
10 70's. We've had BEIR-7. BEIR-7 is not conservative enough,  
11 because it does not include the Techna River studies. It  
12 does not include the studies by Cardis, which show far  
13 greater damage from lower doses than BEIR-7.

14 So therefore the health costs. Health itself  
15 is taken off the table as a Category 1 issue. But the costs  
16 of health belong in the SAMA.

17 Next, and I'm almost finished, what is missing  
18 is consideration of a spent fuel pool accident. I think  
19 obviously this is important, because there's far more  
20 radioactivity in a spent fuel pool, and you can have  
21 migration from a reactor accident to a spent fuel pool  
22 accident, so you get a double whammy, or it can move the  
23 other way.

24 The argument for not considering this holds no  
25 water. They go to the GEIS and look at Section 6, which  
26 takes spent fuel and low level waste for that matter off the

A-01-SAMA  
cont

1 table for adjudication, but the first paragraph says "Normal  
2 operations."

3 Section 5 of the GEIS, which this process is  
4 under, describes and gives a definition of severe accidents,  
5 and it defines it in terms of consequence, not in terms of  
6 the origin of the accident. Therefore, consideration of the  
7 spent fuel pool accident in a severe accident mitigation  
8 analysis, must be considered.

9 Last in the application, they talk about  
10 evacuation time estimates, which are required, because how  
11 long it takes and how many people will get out of dodge will  
12 affect -- in time will affect health costs.

13 However, when you read the application, the  
14 only reference is to Seabrook's radiological emergency plan.  
15 There is no reference, no information of evacuation time  
16 estimates, no provision if they used KLD, whether these time  
17 estimates were performed during peak commuter hours, during  
18 bad weather in peak commuter hours, during holidays, during  
19 high beach season. There's no information whatsoever.

20 Just a mere "other" reference to new Reg 1150,  
21 which has absolutely nothing to do with this, that was an  
22 analysis of consequence at five reactors, not Seabrook  
23 included in 1991. So it is really irrelevant. So that has  
24 to be updated. Last, they do a sensitivity analysis to show  
25 that we put in more numbers to make a severe accident look a  
26 little worse, and see it didn't make enough of a difference.

A-01-SAMA  
cont

1           But what they did was use the same code, the  
2 same assumptions, the same processes, so repeating the same  
3 mistake one, two, three, four times, that never will give you  
4 the right answer. And so these are the questions. We will  
5 send these questions to the NRC, because we will not accept,  
6 and nor will you -- we're sure you would like to do a good  
7 job -- simply to read what they did and then briefly describe  
8 it in *Reader's Digest* form.

9           We expect analyses, and we're very willing to  
10 help you with this process.

11           MS. BOWDEN-BERRY: Mary, thank you very much  
12 for your comment. We're going to go to Representative Read  
13 next, and then Dr. McDowell. Could you spell your name when  
14 you get up to the mic please?

15           MR. READ: My name is Robin Read, R-E-A-D. I'm  
16 a member of the New Hampshire House of Representatives from  
17 Portsmouth, which as you all know is within the evacuation  
18 zone. I was also a member of the House in the 1980's when we  
19 went through the financial struggles related to the plant and  
20 would like to say that I think the new owners have done a  
21 better job of communicating with the public and letting us  
22 know what's going on than the previous owners.

23           You're going to hear -- you've heard a lot  
24 about the evacuation issue, and you're going to be hearing  
25 I'm sure more about the problems that we really should be

A-01-SAMA  
cont

B-01-ALT

1 looking at, including waste, the issue of nuclear waste in  
2 the review.

3 But I'd like to talk just for a minute on the  
4 reasonable alternatives appropriate for the area. I was at a  
5 conference of legislators from all over the Northeast in  
6 Maine on Monday, where Gordon Van Welie, who's the ISO -- the  
7 president of ISO New England, which runs the grid in New  
8 England, said that there are 3,000 megawatts of wind power  
9 currently in the pipeline in New England. 12,000 megawatts  
10 is available.

11 Maine in 2008 passed the Maine Wind Energy Act,  
12 which calls on Maine to produce 3,000 megawatts of wind by  
13 2020. New Hampshire, we now have renewable portfolio  
14 standard, which calls on the state to have 25 percent of its  
15 energy produced from renewable sources by 2025.

16 I seriously question the need for Seabrook, and  
17 I still don't understand how we can be doing this process,  
18 looking at what the environmental and renewable energy  
19 situation and energy efficiency improvements 20 years and 40  
20 years down the road.

21 I think it's way premature to be doing this  
22 process now. I agree with the petitioners, who say that ten  
23 years would be a much better time period to look at. There  
24 have been huge advances in renewable energy and energy  
25 efficiency. There have been huge advantages in storing  
26 alternative energy through battery technology.

B-01-ALT  
cont

1                   There was a recent article in the *New York*  
2 *Times* about storing wind power. I think that this is just  
3 way premature, and I think that the NRC should look seriously  
4 at the petitioners' proposal, and look at the alternatives  
5 seriously.

B-01-ALT  
cont

6                   MS. BOWDEN-BERRY: Thank you, Representative  
7 Read. Now we'll have Dr. McDowell.

8                   DR. McDOWELL: I'm Robin McDowell. I'm a  
9 professor of Oceanography and Environmental Science, American  
10 Military University. You've heard a lot of negatives and  
11 cons in Seabrook. I think you need to hear the positive  
12 side. Right now, there are something like 131 nuclear power  
13 plants being constructed around the world, and they're not  
14 all in Iran, by the way.

15                   I worked at Los Alamos for 18 months, and I  
16 still have all my hair, and as far as I know, I don't have  
17 leukemia. I live in Portsmouth, down wind from the Schiller  
18 and Newington fossil fuel plants. When the air's humid  
19 there, Portsmouth smells like Pittsburgh used to, yet  
20 nobody's protesting that one.

21                   Nuclear is a proven technology. Seabrook, as  
22 far as I know, has never had an incident or a problem. I see  
23 no good reason to deny a license, although you guys ought to  
24 work on the fuel disposal problem, and we spent a little  
25 money out in Yucca Mountain. We ought to do something with  
26 it.

C-01-PRO

1 Other than that, there is no, unless we want to start  
2 turning lights off and shutting off air conditioners and  
3 other facilities around here, wind and solar are nice. But  
4 look out that window. There's not enough wind going out  
5 there right now to fly a decent-sized kite. So unless you  
6 want to start turning switches off, we need Seabrook, like it  
7 or not.

C-01-PRO  
cont

8 It hasn't had a problem, you know, I see. But  
9 I assure you guys when you get back to Rockville Pike will do  
10 a very thorough job, as you usually do, in looking at things.  
11 Thank you.

12 MS. BOWDEN-BERRY: Thank you. We'd like to  
13 have Paul Gunter. Please spell your name and indicate where  
14 you're from. Thank you.

15 MR. GUNTER: Thank you. My name's Paul Gunter.  
16 That's G-U-N-T-E-R, and I'm Director of the Reactor Oversight  
17 Project at Beyond Nuclear, and we're based out of Takoma  
18 Park, Maryland, just outside of Washington, D.C. I'm a  
19 former resident of New Hampshire for 23 years, and also I was  
20 one of the petitioners that filed with the U.S. Nuclear  
21 Regulatory Commission yesterday under the provision for  
22 petition for rulemaking, in a request that the agency change  
23 the current rule under 10 C.F.R. 5417(c), from 20 years in  
24 advance of the expiration date to ten years in advance.

D-01-LIC

25 And one of the key reasons that we've requested  
26 this petition for rulemaking is precisely because a premature

1 application will do nothing but provide meaningless data for  
2 this agency's consideration.

3 This application is the equivalent of green  
4 fruit. It's not ripe. It needs more time. It needs more  
5 time to consider a whole host of issues, ranging from system  
6 structures and components at this plant that you're required  
7 to look at, in the context of aging.

8 But more particularly, I would like to just say  
9 a few words about the due process issue. One of the key  
10 concerns that we have here with an application that's coming  
11 20 years in advance of the expiration date is that it  
12 excludes a whole generation of citizens, commercial interests  
13 from participating in this process.

14 I mean people who should be here are in grade  
15 school right now, particularly when you're talking about a  
16 federal action that will not occur until 2030. So it's  
17 alarming that -- well first of all, the slide that you had up  
18 earlier with regard to why 20 years, I've participated in  
19 many of these license renewal proceedings.

20 We've been an intervener before, and that's the  
21 first time I've ever seen this slide. It was not reassuring  
22 that the basic message of the slide was because we say so.  
23 What you've addressed here is that -- I mean you've  
24 determined that 20 years of operational and regulatory  
25 experience provides an applicant with substantial amounts of  
26 information.

D-01-LIC  
cont

1           But I would refer you to the National  
2 Environmental Policy Act, the reason we're here in the first  
3 place, provides that at Section 1501(b), it says NEPA  
4 procedures must ensure that environmental information is  
5 available to public officials and citizens before decisions  
6 are made and before actions are taken.

7           The information must be of high quality.  
8 Accurate scientific analysis, expert agency comments, public  
9 scrutiny are essential to implementing NEPA.

10           Most important, NEPA documents must concentrate  
11 on issues that are truly significant to the action in  
12 question, rather than amassing needless detail. What you  
13 have before you in this application, now 20 years before the  
14 time of expiration, it basically constitutes nothing but  
15 nonsense, an amassing of needless, meaningless detail.

16           Let's look just in, you know, a license renewal  
17 application for a nuclear power plant submitted 20 years in  
18 advance of its expiration date cannot, according to Section  
19 1500.2 of the same Act -- provide to the fullest extent  
20 possible is the requirement of NEPA -- accurately and  
21 reliably evaluate what's foreseeable, particularly for the  
22 renewable energy alternatives that the representative from  
23 New Hampshire has already addressed as a tremendous resource.

24           I mean essentially what this application  
25 currently puts forth in its claim that the contribution of  
26 wind and solar to the consideration of alternatives under

D-01-LIC  
cont

1 NEPA, they fix it -- the nonsensical comparison is much like  
2 saying the Model T is going to be what we have for the next  
3 20-40 years.

4 It casts aside any kind of consideration for  
5 advancement. But in fact, it's not just -- we're not just  
6 pulling this out of the air. The Department of Energy's own  
7 National Renewable Energy Laboratory, in its assessment,  
8 particularly of offshore wind, is that the contribution for  
9 the region of interest that we're discussing here under NEPA  
10 is -- ranges from good to superb.

11 This basically still -- this all contradicts  
12 what the applicant has put forward for your consideration.  
13 They don't even mention that the potential here, as rated by  
14 the Department of Energy, is that this offshore wind resource  
15 is superb.

16 But, you know, it remains a concern that you  
17 have -- you've got an application here that's before you, and  
18 now it's your duty under NEPA to rigorously explore and  
19 objectively evaluate all reasonable alternatives and for the  
20 alternatives that are to be eliminated by the detailed study  
21 that you have before you, you have to discuss the reasons  
22 that they have been eliminated.

23 Frankly, that's why you've got green fruit on  
24 your hands right now. There's really no rational, reasonable  
25 way to assess a resource 20 years out from the time that

D-01-LIC  
cont

1 you're talking about this federal action to be considered, to  
2 be in effect.

3 So I urge you, as we have petitioned the  
4 agency, to essentially reject this application as premature,  
5 as simply -- in many sections of it, simply an amassing of  
6 needless detail, and let's come back to this issue when the  
7 time is right, as the petition has suggested, in 2020. Thank  
8 you.

D-01-LIC  
cont

9 MS. BOWDEN-BERRY: Thank you for your comment.  
10 We'll have Doug Bogen. Can you spell your name, and indicate  
11 where you're from please when you get to the mic? Thank you.

12 MR. BOGEN: Good afternoon. My name is Doug  
13 Bogen. That's B-O-G-E-N, and I'm the executive director for  
14 the Seacoast Antipollution League. I'm also a 25-year  
15 resident of the seacoast New Hampshire region. Seacoast  
16 Antipollution League was founded in 1969, and has been  
17 engaged since the inception of the Seabrook nuclear plant and  
18 the original licensing, as well as in watch dogging the  
19 operation and the regulatory process since its start-up.

20 We are very concerned about the ongoing air and  
21 water emissions from these plants. You've heard some from  
22 others and probably will hear more on that.

E-01-RAD

23 One in particular that hasn't been mentioned is  
24 the radioactive water, otherwise known as tritium, which we  
25 have seen leakage from the plant already, and is a problem

1 throughout the industry. We've most recently heard about the  
2 problems at Vermont Yankee.

3 We're just amazed that in all these years and  
4 all the time we've known about the security and leakage  
5 problem, that the NRC does not require the power plant owners  
6 to have a maintenance plan to report that information. It's  
7 a voluntary program.

8 I just find this appalling that for all this  
9 time we've known about this problem, and for all the problems  
10 it's caused in particular with the relicensing of Vermont  
11 Yankee, that this is still an issue, and that we do not have  
12 public access to this information. It just isn't available.

13 Now I recognize that the purpose of this  
14 meeting is to identify environmental impacts of this plant.  
15 But we're more concerned actually right now I'd like to talk  
16 about the plant impacts from the environment. We know now  
17 that our environment is changing.

18 I think most everybody and certainly the  
19 science is in on this, and to others it should be obvious  
20 from recent calamities occurring across the globe as well as  
21 in the region, that the climate is changing, that we know now  
22 the environmental parameters we have today are not going to  
23 be in effect 20, 40, 50, 100 years from now.

24 Just look at a few of these, sea level in  
25 particular. Sea level is going up. It has been going up for  
26 decades. But it's going to accelerate. We know this. The

E-01-RAD  
cont

E-02-CLI

1 question is how quickly will it accelerate? How many meters  
2 higher will it be in 50 or 100 years?

3 The current best estimate, without dramatic  
4 reductions in carbon emissions, which we certainly aren't  
5 seeing in our country, according to recent events, that  
6 estimate is that by the end of this century, sea level will  
7 rise upwards of a meter. That will affect the, obviously the  
8 coastline, the ground water levels, the salinity of the  
9 ground water. It will have dramatic effects on our sea coast  
10 environment.

11 Now another organization that I've worked with  
12 in the past, Clean Air Cool Planet out of Portsmouth, has put  
13 together a map of what the Hampton-Seabrook Harbor will look  
14 like with a one meter sea level rise.

15 I'm sorry, I don't have a blow-up of this. I  
16 just pulled it out of my files this morning. But if you can  
17 see the area in blue, it's essentially all the salt marsh and  
18 much of the low-lying coastal area will be under water with a  
19 one meter sea level rise.

20 The Seabrook plant is on this little peninsula  
21 right in the middle here. It will be almost surrounded by  
22 water. Most of the routes out of the plant, out of Seabrook  
23 and Hampton will be under water. Route 1, Route 1A, Route  
24 101, they will not be accessible if this sea level rise  
25 continues, as is predicted now.

E-02-CLI  
cont

1           We have to take this into account. We'll have  
2 a much better picture 10 or 20 years from now. But we  
3 certainly can't say right now that everything's going to be  
4 fine and that the current water regime is going to be the  
5 same.

6           Now looking at groundwater, this is a very  
7 important concern. I've mentioned the issues with tritium,  
8 but we're also concerned about all the underground  
9 infrastructure specifically at this plant, and what effects  
10 this groundwater change will have on that, on those systems.

11           The salinity increases certainly will affect  
12 the corrosion levels, the amount of damage going on to these  
13 critical infrastructure, and it will affect the coastal area  
14 in many other ways. There are studies that have already been  
15 done.

16           The United States Geological Survey did a  
17 report on sea coast water resources. They have determined  
18 that there will be much greater reliance on groundwater, more  
19 extraction of groundwater in our seacoast area in coming  
20 decades, and that will also affect the salinity levels of  
21 groundwater.

22           We know this on the sea coast. When you pump  
23 water out of the ground, you draw in more of the ocean water,  
24 the saline water and certainly with sea level rising, that  
25 makes it all the much worse. One other key issue we've heard

E-02-CLI  
cont

1 a little bit about, especially down in the Gulf Coast, is  
2 violent storms.

3 We haven't had a significant hurricane up on  
4 this region, a really big one since, I think, 1938. But it  
5 is predicted that there will be much more and more frequent  
6 violent storms in this area. Again, looking at this map  
7 here, one of the things that it shows with the one meter sea  
8 level rise is that Hampton Beach will be largely under water.  
9 Seabrook Beach will be under water.

10 Those are the barrier beaches that we rely on  
11 to protect our salt marsh area and our inland coastal areas.  
12 And with those barrier beaches gone, it's much more likely  
13 that you're going to see damage. I don't know exactly how  
14 high Seabrook plant is above sea level or the spent fuel  
15 pools or the dry cast storage area. But I know it's not that  
16 high. I know with the 20 foot sea level rise, the whole  
17 place will be under water.

18 So I do hope that you will be, if you don't  
19 have on staff, you'll be hiring a climatologist to look at  
20 the latest research on this, and a hydrogeologist to look at  
21 the impacts on ground water and the impacts of a changing  
22 water regime, because we need to know this information.

23 This could be vitally important to the  
24 integrity of the plant in coming decades. But again, the  
25 bottom line is that we don't have all the information. This  
26 is highly premature to be assuming that we have any idea

E-02-CLI  
cont

1 what's going to be happening in 40, 50, 60 years down the  
2 road.

3           When we're talking about the nuclear waste,  
4 those of us who have been following this issue for some  
5 years, we know that that waste is not going to be hauled out  
6 of there the day the plant closes. It needs to cool off.  
7 It's got to be transported. There are many, many issues.

E-03-WST

8           That means we are going to be dealing with that  
9 waste on that site for many decades after that, and that is a  
10 scary prospect with the ocean roaring in with storms and  
11 increased sea level. We need to be addressing these issues  
12 in this environmental impact study.

13           It has been mentioned about alternative  
14 resources. I think it's very important that we be looking at  
15 the other options, particularly if you're saying that, you  
16 know, utilities need to plan for the future. I do wonder,  
17 though, how this plant as a merchant plant, it's not like  
18 they have, you know, a specific clientele that they have to  
19 service. It's not Public Service of New Hampshire anymore.

E-04-ALT

20           We are still paying for it, by the time. I  
21 resent every month I have to pay a little fee to help pay the  
22 stranded costs of this plant from the expenses of decades  
23 ago. But we don't get any direct benefit. My understanding  
24 is that Public Service of New Hampshire does not directly get  
25 power from Seabrook. It's just bought through the wholesale  
26 market.

1                   So this idea that somehow if the plant was to  
2 close in 2030, that would somehow, you know, really disrupt  
3 the current utilities. It boggles my mind.

4                   I mean I think that we really need to be  
5 looking more broadly and look at, you know, really the  
6 current and future power systems and power policy in the  
7 Northeast, and right now New Hampshire has, I think, 3,500  
8 megawatts of capacity. That's like three times our stage  
9 usage of power. We are essentially an energy colony for the  
10 rest of the Northeast.

11                  Now that's okay. Obviously some areas are  
12 going to be better at producing power, you know, and we fully  
13 expect other states will jump in and be major power  
14 producers. It was mentioned, I think earlier, the offshore  
15 potential for wind power.

16                  The state of Maine in particular has looked  
17 into this. They did a report. It came out last December,  
18 which said that there was the potential of large scale  
19 offshore wind power to produce 149 gigawatts of power.  
20 That's about 120 Seabrooks just off the coast of Maine.

21                  I'm sure some of you have seen this map, but  
22 this is the Department of Energy map that Mr. Gunter referred  
23 to later. In this map, the color code is bright red there.  
24 That's not "warning, get out of here"; that is the highest  
25 potential, excellent potential, outstanding is the word they

E-04-ALT  
cont

1 use, the Department of Energy, and that's off the coast of  
2 Maine, off the coast of New Hampshire and on down the coast.

3 We need to be looking very carefully at these  
4 alternative power sources, and also the economic impact of  
5 that. I mean just think of all the many thousands of jobs  
6 that would be created if we were to convert some of our  
7 coastal facilities to the production of wind power.

8 I think of the Portsmouth Naval Shipyard, the  
9 Bath Armworks. All up and down the coast we have facilities  
10 that could be producing very useful technology for the future  
11 of our energy system in this region, and we need to be  
12 looking at the potential huge public benefit of developing  
13 those resources, instead of relying on old, obsolete,  
14 potentially unsafe resources like the Seabrook reactor.

15 So just to sum up, I don't want to take too  
16 much time. But just for the record, we do recommend no  
17 action at this point. I know that is one of the options you  
18 have. We do feel this whole license renewal process to be  
19 highly premature.

20 It cannot possibly take into account all the  
21 many key factors affecting plant maintenance, reliability and  
22 safety from the deterioration of vital plant systems and  
23 infrastructure, to climate change and future power needs as  
24 I've described over the next 40 years.

25 So that's why we are also petitioning the NRC  
26 to suspend the process now in the public interest. We need

E-04-ALT  
cont

E-05-LIC

1 to keep in mind we are talking about decisions now that will  
2 affect future generations, people that aren't even born yet,  
3 our children and grandchildren. Most of us here won't even  
4 be alive when this plant is still chugging away under this  
5 proposal.

6 So we need to be thinking very carefully about  
7 what the impacts will be for their benefit, not just for a  
8 current corporate interest that clearly has some financial  
9 benefit or they wouldn't be here advocating for this at this  
10 time.

11 We need to be thinking foremost about the  
12 public benefit and the environmental benefit of our future  
13 energy policy, and we need to be keeping that foremost in  
14 deciding on whether to renew this plant at this time. Thank  
15 you very much, and I will be submitting probably written  
16 comments, and I think can provide these maps to you as well.  
17 Thank you.

18 MS. BOWDEN-BERRY: Thank you, Mr. Bogen, and I  
19 apologize for mispronouncing your name. We're going to have  
20 Janet Guen, then Joe Casey and Tim Noonis next. So Janet  
21 Guen. Can you spell your name for the record and tell us  
22 what organization you're from? Thank you.

23 MS. GUEN: Good afternoon. My name is Janet  
24 Guen. I'm a senior director with the United Way of the  
25 Greater Seacoast. My last name is G-U-E-N. I'm not a  
26 technical person and I'm not here in a technical capacity.

E-05-LIC  
cont

1 I'm simply here to answer the question or part of the purpose  
2 of the meeting, which was providing input on the scope of the  
3 environmental review.

4 I'd simply ask that in a definition of  
5 environment, it be looked at in the broadest possible  
6 context, to review not just the traditional definitions of  
7 environment, but also environment as it relates to the  
8 quality of life that we all experience in our communities,  
9 and in particular the health and human service needs of the  
10 people who live in our local area.

11 I would ask that the scope include looking at  
12 the role that Nextera plays in helping to provide for the  
13 health and human service needs in our area, the large number  
14 of jobs it provides that pay a living wage, the taxes it pays  
15 to its local communities, and the role that it plays a good  
16 citizen in working with local health and human service and  
17 other non-profit agencies, the leadership its employees  
18 provide on boards and other committees, the financial support  
19 that it provides, not just to United Way but other  
20 organizations, and the volunteer time and energy that it puts  
21 back into the community. Thank you.

F-01-SOC

22 MS. BOWDEN-BERRY: Thank you for your comments.  
23 Joe Casey, and next is Tim Noonis. Thank you.

24 MR. CASEY: Good afternoon. Can you hear me?  
25 Good afternoon. My name is Joe Casey. I am from Rochester,

1 New Hampshire, and I am the president of the New Hampshire  
2 Building and Construction Trades. Is this working?

3 I represent the outside construction workers  
4 currently employed at Seabrook Station. I myself worked on  
5 the construction and a couple of the maintenance, first  
6 maintenance refuels, refuelages at the plant. I'm no longer  
7 involved with the plant, other than representing the  
8 construction workers on site. I worked as an electrician by  
9 the way.

10 Currently, there are about 110 craftsmen that  
11 work on the maintenance year-round at Seabrook Station.  
12 During the refueling cycle, that number grows to about 600  
13 construction workers, and it's vitally important to the  
14 construction economy in the state of New Hampshire. This is  
15 a continuing cycle of good paying jobs for our people.

16 I deal with Florida Power and Light, the owners  
17 of Seabrook Station, and the current maintenance contractor  
18 on site, and other than the skilled craftsmen that we supply  
19 for the continued maintenance and the refueling outages,  
20 there are very demanding tasks that they have to go through  
21 and perform for every installation in the constructing and  
22 maintaining of the facility.

23 Currently, when we send somebody down to  
24 Seabrook, in my case it would be electricians, they're  
25 already licensed or trained electricians and trained  
26 construction workers.

G-01-PRO

1           Seabrook Station puts them through rigorous  
2 training for each and every task that they have to perform,  
3 whether it be lift training or, you know, hilti training.  
4 Any type of training that requires anything that's involved  
5 with the maintenance, which is very critical to the plant.

6           They have to undergo rigorous testing, every  
7 weld that's done and performed down there. They have to do  
8 all kinds of certifications for it, and it's a very difficult  
9 place to work. Excuse me.

10           A lot of my people, you know, can't work at  
11 Seabrook Station, because they can't pass these exams that  
12 they have to go through, which is fine and we understand  
13 that, and are very cognizant to the fact that it is very  
14 demanding down there.

15           The communication between the building trades,  
16 we meet on a quarterly basis with the representatives from  
17 each craft with Florida Power and Light, the maintenance  
18 people and the building trades, and the number one issue is  
19 the personnel safety, the safety of our personnel on site, as  
20 they perform their tasks down there.

21           Florida Power and Light has been more than open  
22 and honest in every question that has to be performed, and  
23 safety is number one to our people. Now over the past three  
24 years, the last three years, I ran the numbers this morning,  
25 the building and construction trades has accumulated over 1.4  
26 million man hours in the last three years.

G-01-PRO  
cont

1                   Now that's a significant number of man hours,  
2                   and these are all New Hampshire people who work and support  
3                   families in the sea coast area in the state of New Hampshire.  
4                   These jobs are, you know, top-paying jobs with health care  
5                   and pensions. I also, you know, since the wind industry has  
6                   been dried up, I also was involved with the New Hampshire's  
7                   first wind farm up in Lempster, which we constructed just  
8                   over a year ago.

9                   I had 20 people on that job. There was about  
10                  12 towers that was put up over there. We had about 20 people  
11                  on that job, 20 electricians. They worked for about four  
12                  months, completed the project and now they're off the job,  
13                  you know. It's a beautiful job and the wind's blowing and  
14                  it's generating electricity, and there's not one person left  
15                  up there maintaining those wind towers.

16                  Over the next 20 years, there will be zero man  
17                  hours produced out of that wind farm into the New Hampshire  
18                  economy. So you know, the significance to the New Hampshire  
19                  building trades of the continuation of the operation of  
20                  Seabrook Station is unbelievable, and you know, there's a lot  
21                  of people that count on and look forward to continued work  
22                  down there.

23                  I can guarantee you that the construction  
24                  workers that are working on that site are professional, and  
25                  every task that they perform is overlooked and overlooked  
26                  again by Florida Power and Light and the NRC.

G-01-PRO  
cont

1 MS. BOWDEN-BERRY: Thank you, Mr. Casey. Can  
2 we have Tim Noonis?

3 MR. NOONIS: Yes, hi. That's N-O-O-N-I-S. I'm  
4 actually wearing two hats today. My first hat is I am the  
5 chairman of the board of directors of the Hampton Area  
6 Chamber of Commerce. Seabrook Station is a very strong  
7 supporter of the Hampton Area Chamber of Commerce, and  
8 through it all the members that we serve.

9 Seabrook Station is always willing to sponsor  
10 and participate in many events and festivities that the  
11 Chamber promotes to encourage business and tourism in the  
12 areas that we serve. I personally have had the privilege to  
13 serve on various boards and civic committees with employees  
14 of Seabrook Station. I have found them to be a very bright  
15 and positive group, and an asset to the communities that we  
16 live in.

17 Our Chamber runs the gamut, from small mom and  
18 pop businesses to very large corporations. These businesses  
19 depend on reliable and reasonably-priced electricity to  
20 operate their businesses successfully. The long-term  
21 viability of Seabrook Station is integral to the success of  
22 our members.

23 Seabrook Station is a crucial part of this  
24 area's economy, and you could not ask for a better corporate  
25 citizen than Seabrook Station. On behalf of the members of

H-01-PRO

1 the Hampton Area Chamber of Commerce, I would encourage you  
2 to extend Seabrook Station's operating license.

3 My second hat today is as a 17-year resident  
4 and a homeowner here in Hampton. A few years ago I went to a  
5 conference where the keynote speaker was the co-founder of  
6 Greenpeace. In his address, he said the biggest mistake  
7 Greenpeace made was equating nuclear power with nuclear  
8 weapons. He continued on to say that nuclear power has  
9 proven to be a safe and reliable source of electricity, and  
10 that the operation of the plant does not contribute to  
11 climate change.

12 I hear the clamoring for good jobs, cheap power  
13 and a clean environment. But when it comes to siting a plant  
14 or even a wind turbine, everyone screams "not in my  
15 backyard." Seabrook Station is in my backyard, and I have  
16 found them to be a very good neighbor. I encourage you to  
17 extend Seabrook Station's license.

18 MS. BOWDEN-BERRY: Thank you. We're going to  
19 have Bob Backus and then next we'll have Michael Schidlovsky.  
20 I hope I pronounced that right, and I apologize if I didn't.  
21 Can you spell your name when you get to the mic and tell us  
22 where you're from.

23 MR. BACKUS: Okay. It is Bob Backus. You are  
24 quite correct, B-A-C-K-U-S. I've represented -- I'm a lawyer  
25 and I've represented the Seacoast Antipollution League for  
26 many, many years. I'm from Manchester, New Hampshire.

H-01-PRO  
cont

1           Like Mr. Gunter, I wanted to comment initially  
2 on the slide that was shown about why 20 years, which says  
3 the NRC has determined that 20 years of operational and  
4 regulatory experience provides an applicant with substantial  
5 amounts of information.

6           My questions, and I guess there's two NRC  
7 lawyers here. I particularly address this to them. How can  
8 you base your reasonable assurance on merely substantial  
9 information? When you fill out an application for college or  
10 practically anything else, you're asked for complete  
11 information, not substantial information.

12           Well, the answer's obvious. You can't have  
13 substantial -- you can't have complete information, because  
14 we're trying to relicense this plant 20 years before that  
15 license will become effective.

16           One of the key questions, as many have said  
17 here, is what's going to happen to age-related degradation on  
18 systems and components and structures over the next 20 years?

19           We can't know that. So again, I want to  
20 support those who have said that this application is  
21 extremely premature. I don't know how you came up with a  
22 rule that said you could apply 20 years in advance, you know.  
23 Can I apply 20 years in advance for my next motor vehicle  
24 license need? I don't think the State Department of Motor  
25 Vehicles would permit that.

I-01-LIC

1           And we know that as time goes on, as radiation  
2 takes its effect and other wear and tear occurs, we are going  
3 to have age degradation of important structures and  
4 components. We know the Yankee Road plant had an embrittled  
5 reactor vessel which led to its shutdown. But would we have  
6 been able to detect that if we were licensing it 20 years  
7 before that became known? I mean how long did it take that  
8 to develop?

9           So I have a real grave concern of whether you  
10 can meet the requirements you have to have for reasonable  
11 reassurance lining, just on the basis of accepting  
12 substantial information rather than complete and accurate  
13 information.

14           Obviously starting at this point, in 2010, 30  
15 years, 20 years before the license is to be renewed, you  
16 can't possibly have that. So I think this is extremely  
17 premature.

18           The other reason you give for starting 20 years  
19 ahead is that it takes maybe that long for it to come up with  
20 alternative supplies. Well, you've heard others speak about  
21 that, and there's going to be technological progress.  
22 There's going to be developments in many areas, whether it be  
23 solar or wind or other things that we can't foresee now.

24           We're really way out ahead of ourselves, and I  
25 think being highly irresponsible in undertaking this license  
26 review here in 2010, when the license will not be renewed for

I-01-LIC  
cont

1 another 20 years. I was interested to hear you say there's a  
2 couple of other plants that have applied early. But I didn't  
3 hear anybody has applied as early as this one. So I think  
4 that's a real problem.

I-01-LIC  
cont

5 Just a couple of other points I'd like to make.  
6 As part of your review, I would hope that you would determine  
7 that this plant is in full compliance with its current design  
8 basis in all regards, and how will we find that out? How  
9 will we know what the design basis is and whether the plant  
10 is in compliance with it?

I-02-SAF

11 This plant, like so many of them, went through  
12 any number of changes as a way of sort of being designed as  
13 it was being built in some respects. So how will we know  
14 that? It seems to me that that will have to be demonstrated.

15 On environmental impacts, you know, one of the  
16 big issues when this plant was going through its original  
17 licensing was the operation of the once-through cooling  
18 system, which is a total mortality system with a total loss  
19 of all entrained organisms in the plant. Will we be able to  
20 have baseline data to know whether that plant is having an  
21 adverse effect on the environment? How will that be looked  
22 at? I assume that that will be covered.

I-03-ECO

23 We know the plant has routine releases, and as  
24 somebody mentioned, I think Mr. Bogen mentioned, we know that  
25 there's been some tritium releases which was certainly not  
26 intended. We need to look at that. I was going to mention

I-04-WST

1 the sea level rise, but that was well-discussed by Mr. Bogen.  
2 I won't go into that.

3           Lastly, of course, I know that these licensing  
4 proceedings and these individual plant proceedings, we're  
5 shuffled off with many of the important things are shuffled  
6 off as a generic issue to how those are handled on a big  
7 national basis. A quintessential example of that is of  
8 course nuclear waste disposal.

9           But we think that this needs to be dealt with  
10 in this specific context of this plant. If we're going to  
11 license this plant for 20 more years, we're going to have a  
12 lot more spent fuel. That means a lot of very much greater  
13 level of high level waste disposal. We think that the  
14 environmental impacts of that have to be considered in regard  
15 to the particular characteristics of this site, where  
16 there's, as we say, a spent fuel pool which is pretty close  
17 to the ambient sea level and the concerns that that raises.

I-04-WST  
cont

18           So those are the concerns that I have. But  
19 again, my major point is 20 years ahead, to get your license  
20 renewed 20 years ahead and do so on the basis of what you  
21 apparently admit can only be substantial information, which I  
22 think may be a generous term, it seems just not regulating  
23 and not putting safety first, which should be what is first.  
24 Thank you.

1 MS. BOWDEN-BERRY: Thank you. Could we have  
2 Michael Schidlovsky? Please spell your name and the  
3 organization you're with when you get up.

4 MR. SCHIDLOVSKY: Good afternoon. My name is  
5 Michael Schidlovsky. I am the president of the Exeter Area  
6 Chamber of Commerce, and I'm here to represent the board of  
7 directors and the 400 plus members of the Chamber. I'll be  
8 very short and sweet. I'm here to express the Chamber's and  
9 the Chamber members' support of the application.

10 Like Mr. Noonis, he beat me to the punch.  
11 Seabrook Station has been an outstanding corporate citizen.  
12 There's support and willingness to help the business  
13 community has been extraordinary, and I can only again  
14 express that I hope that the NRC views this as a favorable  
15 application. So thank you very much.

J-01-PRO

16 MS. BOWDEN-BERRY: Thank you. Could we have  
17 Paul Blanch and then Dennis Wagner?

18 MR. BLANCH: Good afternoon. My name's Paul  
19 Blanch. I reside in West Hartford, Connecticut. I'm here  
20 solely on my own. I'm not being paid for by anyone, no  
21 organization, no utility, and I am a registered professional  
22 engineer working in the nuclear industry for close to 45  
23 years.

24 In fact, I've worked for the company that  
25 originally licensed this plant when it was licensed back in  
26 around 1990. I was working for Northeast Utilities. I've

1 worked in many different areas over the nuclear side, from  
2 operating Navy nuclear power plants, engineering degree in  
3 Electrical Engineering, registered professional engineer.

4 I've been an expert witness on litigation  
5 involving Florida Power and Light at the St. Lucie plant, and  
6 I've been involved as an expert witness on the litigation for  
7 license renewal, working for the attorney general for the  
8 state of New York.

9 I think people need to know what the effort is  
10 to oppose a license renewal application such as this, and I  
11 heard this afternoon for the first time that if anyone wants  
12 to intervene, it has to be done by September 20th. Let me  
13 just give an example of the manpower effort that went into  
14 our litigation against Indian Point.

15 Needless to say, there were many, many  
16 attorneys involved in that litigation. The effort and it  
17 involved literally thousands if not tens of thousands of  
18 hours. I've got to admit, and I'm speaking again on my own,  
19 not for the state of New York. What I'm speaking of is the  
20 license renewal application, and my areas are -- I'm not  
21 addressing ten years, twenty years prior to the expiration of  
22 the present license.

23 My concerns are the adequacy of maintaining  
24 this plant in a safe condition for the next 20 years, and if  
25 the license renewal is granted, which the NRC has never even

} K-01-LIC

1     hinted at not granting one, I want to assure that that plant  
2     is operated safely.

3             Now it was said earlier by some of the NRC  
4     representatives that their objective is to protect the public  
5     health and safety, and I agree that is their mission. Their  
6     mandate by Congress is to protect the health and safety of  
7     the general public.

8             After working in this industry on the inside,  
9     on the outside, as a consultant, as an expert witness, I've  
10    come to the belief that the NRC is not fulfilling their  
11    Congressional mandate of protecting the health and safety of  
12    the public.

13            I'd like to provide a few examples, and again  
14    it's very, very bothersome to me that I see September 20th as  
15    a deadline date for formal intervention to oppose this  
16    license. Believe me, it costs millions of dollars to  
17    effectively intervene in opposing a license renewal  
18    application. The purpose of this whole license renewal  
19    application, as was stated earlier by the NRC personnel, is  
20    to assure that the CLB, which is the current licensing basis,  
21    which is defined in 10 C.F.R. 54.3.

22            The current licensing basis includes all the  
23    applicable regulations, and the public needs to and I believe  
24    the NRC needs to, in order to protect the public health and  
25    safety, assure the public that this current licensing basis

K-01-LIC  
cont

1 is maintained for the next 20 years, and if the license  
2 renewal is granted, for the 20 years following that.

3 Again, I mentioned I was an expert, am an  
4 expert named in Indian Point litigation related to buried  
5 pipes and vital cables, and other electrical devices  
6 including transformers. The current licensing basis is not  
7 available. In contrast to what Jeremy said, the current  
8 licensing basis includes, and he said these documents were  
9 available, it includes all regulations.

10 All the regulations of 10 C.F.R. Part 2, Part  
11 20, Part 26, Part 50, Part 54, Part 72 and all the other  
12 regulations that are applicable to Seabrook. The current  
13 licensing basis also includes such items as the final safety  
14 analysis report, orders and anyone can look under 10 C.F.R.  
15 54.3 and find the definition.

16 What is really strange about the current  
17 licensing basis, Mr. Pham is here and a few years ago, I  
18 wrote Mr. Pham a letter. could you please identify for  
19 Indian Point's Unit II and III what the current licensing  
20 basis was, and what regulations are applicable to Indian  
21 Point's Unit II and III.

22 His response, and again these responses are  
23 public information, can be found on ADAMS. Mr. Pham's  
24 response, Mr. Pham is sitting right in front of me, was one  
25 can find the current licensing basis if you go into ADAMS.

K-01-LIC  
cont

1 That is not an accurate statement. One cannot find the  
2 current licensing basis in ADAMS.

3 There are certain portions of the current  
4 licensing basis that are not in ADAMS. The FSAR, part of the  
5 current licensing basis, is not in ADAMS.

6 In the Indian Point application, a license  
7 renewal application and I'd like to make a comment right  
8 here, and I have reviewed various applications for license  
9 renewal, that this particular one for Seabrook is the most  
10 deficient application I have reviewed so far.

11 Let me just provide just some contrast between  
12 this application at Seabrook and Indian Point, and I don't  
13 consider Entergy to be one of the more superior operating  
14 companies in the country. But at least their application  
15 identified things that an intervener who's concerned about  
16 safety would want to know about before it was able to file a  
17 meaningful contention.

18 For instance, in the Indian Point license  
19 renewal application, all the drawings that identified the  
20 buried pipe that are within scope of the buried pipe and tank  
21 inspection program were supplied.

22 In fact, there were about, and don't hold me to  
23 this number, somewhere between 50 and 100 detailed drawings  
24 of Indian Point systems, and this is not only mechanical  
25 systems, but also included the electrical systems that were  
26 within the scope of license renewal.

K-01-LIC  
cont

1           Seabrook, and I don't think I missed it, but  
2 I've been wrong in the past, there are no drawings that  
3 identify the buried pipes that are part of the buried pipe  
4 inspection program. So I don't think there could be any  
5 meaningful intervention contentions filed by the present  
6 deadline, and for the NRC to accept this application that is  
7 so extremely deficient in reality and from an engineering  
8 standpoint, borders on irresponsibility.

9           I have a few examples, and by the way, I have  
10 taken a few hours to go through, I believe it was somewhere  
11 around a 1,800 page document of the license renewal. I would  
12 just like to point out some of the technical shortcomings,  
13 and again my expertise is not on severe accident management.  
14 It's more on systems, systems interaction, mechanical  
15 systems, electrical systems, cabling, requirements for  
16 cabling and so on and so forth.

17           Let me -- and by the way, just for  
18 informational purposes and this may be informational also for  
19 the Nuclear Regulatory Commission, that Congressman Markey  
20 and I believe Congressman Hodes might be involved with it.

21           But Congressman Hall from New York, a few other  
22 Congressmen from New York, Congressman Peter Welch from  
23 Vermont have requested the GAO, which is General  
24 Accountability Office, to investigate the adequacy of the  
25 NRC's program for buried pipe inspection program.

K-02-SAF

1                   And I have been working very, very closely with  
2 the General Accounting Office in identifying shortcomings of  
3 the proposed programs that the NRC accepts and considers  
4 adequate for buried pipe inspection. And working with the  
5 GAO, we found, and even though I've been working with this  
6 for three or four years, we find new stuff.

7                   It's interesting. It's repeated in the  
8 Seabrook license renewal application. If we look at the  
9 Seabrook's application, for instance, for buried pipe, very  
10 interesting in the fact that buried is not even defined  
11 within the regulation. Nobody knows what "buried" means. We  
12 saw the confusion up at Vermont Yankee, where they said we  
13 didn't have buried pipes.

14                   Well, that resulted in some criminal  
15 investigation against some people. Unfortunately, some of  
16 them are friends of mine who I used to work with. But buried  
17 is not defined. Does "buried" mean in contact with the soil?  
18 Yes, it does mean that among other things. Does it mean that  
19 if it's in a pipe trench, a concrete trench that's located 14  
20 feet underground, is that considered buried? We don't know.

21                   Buried pipe does not necessarily include piping  
22 that contains highly radioactive material. Buried pipe only  
23 covers those items that are listed within the scope of the  
24 license renewal, which I believe is 10 C.F.R. 54.4. So  
25 buried pipes containing radioactive material are not

K-02-SAF  
cont

1 necessarily covered by the license renewal application, and  
2 that is reinforced by the license renewal application.

3 Another example, and again this is something  
4 that I just found out recently, that the buried pipe and tank  
5 inspection program only covers carbon steel and stainless  
6 steel. It does not cover other materials such as titanium,  
7 bronze, copper, nickel, aluminum and other exotic materials  
8 that are used in vital systems at the Seabrook plant.

9 So Seabrook conveniently says, and NRC buys it,  
10 that it only covers steel or ferrous material including cast  
11 iron. But it's not going to cover any fiberglass pipe or any  
12 of the other exotic metallic materials that are used in  
13 safety-related systems.

14 Now we've seen a lot of recent information on  
15 cables that are, and it's interesting how when we go to  
16 piping, they use the term "buried." But when we go to  
17 cables, they use the term "inaccessible." Well, I think we  
18 need some consistency here between piping and cables.  
19 Really, the intent to protect the public health and safety is  
20 it should be inaccessible piping and not buried piping.  
21 There's a lot of inaccessible piping.

22 But let me just move on to show and demonstrate  
23 how the NRC can ignore protecting the health and safety of  
24 the general public. By the way, I'm not here to close  
25 Seabrook or to stop its license. My only intention is to

K-02-SAF  
cont

1 assure that Seabrook operates safely for as long as it  
2 continues to operate.

3 But I've recently identified a shortcoming with  
4 respect to vital cables contained within these nuclear power  
5 plants. We have many vital cables that go out to supply  
6 motor operated valves, vital motors and many pieces of vital  
7 equipment.

8 The NRC has recently acknowledged that some of  
9 these vital cables are running conduits that are underground,  
10 and many of these conduits, and in fact I've heard from the  
11 NRC 95 percent of the plants, including Seabrook, these  
12 cables are submerged. May be submerged under water, and at  
13 Seabrook it's even worse, because that water contains high  
14 salinity levels because it's right on the ocean.

15 This is a clear violation of NRC requirements  
16 that are specifically stated in 10 C.F.R. 50, Appendix B. So  
17 the NRC says well, Vermont Yankee, where it was originally  
18 identified -- well not originally identified, but recently  
19 identified in an inspection report. The NRC says "It's okay  
20 to violate the regulations. You can continue to operate  
21 because we consider the risk to be low."

22 The NRC does not have the authority within the  
23 regulations to say you can violate those regulations without  
24 going through the exemption process, which is under 50.12, to  
25 allow a plant to continue to operate outside of the  
26 regulations of 10 C.F.R. 50, Appendix B. Let me just give

K-02-SAF  
cont

1 you a few examples of just some of the observations I found  
2 and shortcomings in the license renewal application from the  
3 Seabrook.

4 MS. BOWDEN-BERRY: Excuse me, excuse me. Can  
5 you wrap it up in a few? Because we have about five more  
6 minutes.

7 MR. SCHIDLOVSKY: I can wrap it up or I can  
8 continue tonight, and in the interest of time, and I know  
9 other people have very important things to say.

10 But I think this is premature, that the NRC  
11 should not have accepted a license with all the shortcomings,  
12 and without a clear identification of the current licensing  
13 basis, which includes the regulations. And contrary to what  
14 Jeremy said, those regulations, especially the ASME codes,  
15 are not accessible to anyone in this area and they're not  
16 accessible on ADAMS. Thank you very much for your time.

17 MS. BOWDEN-BERRY: Thank you, and you're  
18 welcome to submit your comments. We have Dennis Wagner.  
19 Again, spell your name and your affiliation, and identify  
20 your affiliation.

21 MR. WAGNER: My name is Dennis Wagner. I'm a  
22 citizen of Hampton. W-A-G-N-E-R. I didn't plan on speaking  
23 today. I thought I'd just come and listen for a while. I am  
24 pleased to see the diverse comments that are being offered to  
25 the NRC, to guide them from what we're interested in as a  
26 public.

1 I did feel compelled to make a couple of  
2 comments, though. The comments that 20 years is too long I  
3 disagree with. Looking at what companies have to cope with,  
4 and the NRC has to regulate to go through these licensees,  
5 probably 20 years is about the right time. Look, you know,  
6 if you go ahead and delay it until a time closer to the  
7 renewal, closer to the expiration, it just allows more time  
8 for delaying tactics.

9 If you're going to plan major infrastructure,  
10 you need to do it in advance, and you need to do it in as  
11 much in advance as you can. This is reasonable. They're  
12 allowing 20 years of operating experience to provide a basis  
13 on which to look at past capability and look towards the  
14 future. As an individual, that seems reasonable to me.

15 As far as other alternative forms of energy to  
16 look at, I just spent a vacation in Maine. Beautiful  
17 coastline. The potential for all the megawatts of power?  
18 Give me a break. You can't get wind power in Cape Cod.  
19 You're not going to get much wind power to compensate for the  
20 need for energy in this country, and in our New England  
21 states.

22 Those kinds of renewal energy are important and  
23 are becoming more important, but they don't stack up with the  
24 big picture. I am sick of being held hostage by foreign  
25 countries for oil. I'm sick of the air pollution we get from

L-01-PRO

1 coal. Those are where we get our energy in this country,  
2 close over 75 percent of it, okay.

3 Nuclear power is a reasonable way to go. It's  
4 proven it's been reasonable in this country, and it is an  
5 answer for us in the future. I am confident, as I look  
6 across the marsh from my home to Seabrook power plant, that  
7 it's going to continue to be a safe generator of power. I'm  
8 confident in the NRC in overseeing that operation, to make  
9 sure it's going to stay safe for me and for my family.

10 We do make decisions in advance, 10, 20 years,  
11 30 years. We all do that in our budgets, and we do that as a  
12 country, and this advance planning is required. Thank you.

13 MS. BOWDEN-BERRY: Thank you for your comments.  
14 We want to thank all of you for your comments. Our time is  
15 up, so I'm going to turn it over to --

16 (Off mic comments.)

17 MS. BOWDEN-BERRY: Okay. Yes. Please just  
18 identify yourself when you get up there.

19 MR. FLEMING: Thank you. Good afternoon, for  
20 those of you -- is this the correct mic? For those of you  
21 that might remember a Paul McGinnis auction here, I guess I  
22 can be referred to as the next number, when they allow  
23 somebody into the bidding at that point. So I thank you. A  
24 little Hampton Falls reference there.

25 My name is Kevin Fleming, F-L-E-M-I-N-G, and I  
26 work and live in the neighborhood here of Seabrook, within

L-01-PRO  
cont

1 the ten-mile zone. That's my question, is really speaking to  
2 the evacuation issue. Perhaps the general counsel or maybe  
3 someone from the staff could offer some perspective. But  
4 does the evacuation -- we get calendars in the mail annually.

5 Does the evacuation plan and the accuracy of  
6 the evacuation plan figure into the process of license  
7 renewal? That's my question. I'm sorry if that's something  
8 I could have found online or, you know, other documents. But  
9 with that, at the same time, with this license renewal then  
10 being considered, then could evacuation be considered  
11 further, such as the 2000 census data or does it go to a  
12 2010? Is there a requirement for updating?

13 And then particularly we're talking about the  
14 evacuation of special, "special needs," whether it be school  
15 children, retirement communities, retirement homes, nursing  
16 homes, elderly, of whatever or special needs people of any  
17 sort. So that's all. My question coming here today is  
18 really to ask if evacuation updating is required, and if it's  
19 not, then could it be given consideration at this point?  
20 Thank you.

M-01-SEC

21 MS. BOWDEN-BERRY: Okay, yes.

22 (Off mic comment.)

23 MS. BOWDEN-BERRY: All right.

24 MR. PHAM: Good afternoon again. My name is Bo  
25 Pham. Just to answer your question, the emergency planning  
26 is an issue that we consider and the need for update, you

1 know. Our regulations require the licensees, regardless of  
2 whether they put in an application for license renewal, to  
3 have a plan in place, and to implement that plan working with  
4 the local authorities as well as FEMA, and there are periodic  
5 audits and inspections that we do, to make sure that they  
6 have that in place. So it doesn't -- it's not part of the  
7 license renewal review, because it is an ongoing review that  
8 we do all the time.

9 MR. PHAM: Just to -- yes Mary.

10 MS. LAMPERT: Wait. I'll pass you the mic.  
11 Mary. I was wondering whether you would entertain any other  
12 comments, or is it cocktail hour now?

13 MR. PHAM: I was going to close it out, unless  
14 somebody else had a yellow card that didn't -- that they  
15 didn't have a chance to give us. Also, the staff's going to  
16 be available for, you know, after the --

17 MS. LAMPERT: Oh, I had a yellow card. I  
18 wanted to make another comment.

19 MR. PLASSE: I think we can make -- we'll hear  
20 from you. Do you want to come up here?

21 MS. LAMPERT: I just wanted -- Mary Lampert,  
22 speaking for C-10, director of Pilgrim Watch. I just wanted  
23 to make a comment regarding the aging management program for  
24 buried pipes, tanks, components within scope.

25 Currently, there seems to be a legal debate on  
26 whether consideration will be given to the leaking of

} A-02-HYD

1 radioactive liquids or other toxics unmonitored off site.  
2 The issue seems to be that currently only what will be  
3 accepted will be the dysfunction, if you will, of those  
4 components as it affects safety systems.

5           However logically, I'd like to bring to your  
6 attention the potential of bringing it under the  
7 environmental umbrella, because it seems clear if the aging  
8 management program has not found to be sufficient to monitor  
9 potential leaks going unmonitored off site, then in fact it  
10 would be a violation of regulation and a negative impact on  
11 the environment.

12           That also should go for components that are  
13 buried, if we figure out how that's defined, that contain  
14 fuel from the diesel fuel tanks. I think that would be  
15 another way of getting at it, if you will. But the exam  
16 question is what you should be doing in your review of the  
17 SEIS.

18           So I would suggest that you fill in the blanks,  
19 provide a map, a list first of all the components within  
20 scope that are submerged, buried, what have you.

21           Second, provide a map of where they are on the  
22 site. Provide to us in the SEIS information regarding the  
23 age of those components, the history of repairs, the results  
24 of sampling, the material that they're made of, specifics  
25 such as their contours, their elbows, etcetera, that would  
26 affect corrosion.

A-02-HYD  
cont

1                   Also very important, provide to us, and you  
2 should be looking at this yourselves actually, what hydro geo  
3 studies have been done to determine where the monitoring  
4 wells are currently being placed, and provide those hydro geo  
5 studies that have done subsurface investigation to the public  
6 in your report, and the date at which those were done.

7                   So were the monitoring wells, in other words,  
8 put in helter skelter, or have there been very recent hydro  
9 geo studies performed? So I think this can come. You can  
10 deal with these components in two ways. You can bring it  
11 under the safety review end, and also you should be able to  
12 bring it under the environmental umbrella.

13                   It belongs in the SEIS, because of the  
14 potential impact of leakage going unmonitored off site.

A-02-HYD  
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STATE SENATOR MAGGIE HASSAN: Yeah, just directly into it? Okay. Good evening. My name is Maggie Hassan. I am a New Hampshire State Senator and I'm honored and privileged to represent District 23, which includes Seabrook in the State Senate. I wanted to speak for a couple purposes. My constituents have varying opinions on nuclear power. They have varying opinions on whether they believe the plant should have been licensed in the first place. To the degree people are talking to me about it, they have varying opinions about relicensure.

I wanted to speak about a couple of things. First and foremost that when constituents have called me with questions about the operation and safety of the plant or when I've had those questions or when my colleagues in the Legislature have had them -- we have been impressed or I have been impressed with the openness of the Seabrook plant in inviting us to the plant, giving us information, answering our questions, touring us through the plant. They have been cordial, responsive, specific. So, I give them kudos for that. I think they have been a good participant, at least since the time I have been in the State Senate, which is the last six years.

The plant is obviously an enormously important employer and taxpayer and community participant to many of the communities in our area. So, from that perspective, I'm

N-01-PRO

1 looking at the scope of the NRC's Environmental Review --  
2 they are an incredibly important presence here and there are  
3 many, many of my constituents who are very happy that they  
4 are here. On the flip side of that -- this is an enormously  
5 fragile ecosystem. There's just 18-miles of the New  
6 Hampshire shoreline that we hold very, very dear. There is  
7 the Great Bay Estuary that is really at a tipping point in  
8 terms of its environmental quality. So, we would ask that  
9 the NRC and its environmental and safety experts listen with  
10 great care to the concerns that will be raised throughout  
11 this process about the impact on this extraordinary part of  
12 our state and our country.

N-01-PRO  
cont

13 I think more than anything else, people in my  
14 district want to know that the plant is well-run and that the  
15 people there hold as dear as my constituents do, this part of  
16 our state and our country. They also want to know that the  
17 NRC is doing its job. I can't stress enough as an elected  
18 official how concerned people are right now that government  
19 is capable of doing what the citizens trust it to do. I  
20 can't think of a more important example of a nuclear power  
21 plant sitting so close-by to so many levels of our ecosystem  
22 and human life.

N-02-LIC

23 So, with that I just thank you all for being  
24 here. I look forward in any way I can assist from the state  
25 government point of view in making sure that this process is  
26 as complete and informative for all of you as I can. I would

1 be happy to do that and I know my other legislatures and the  
2 Governor's office feel the same way. To my constituents who  
3 are in the room -- I hope that you will bring forward not  
4 only to the NRC, but again if the Senate or the House or the  
5 Governor's office can be helpful in facilitating  
6 conversation, as that may need to happen, I look forward to  
7 doing that as well. More than anything, we just want to know  
8 that we are keeping New Hampshire beautiful and safe. Thank  
9 you.

N-02-LIC  
cont

10 ELVA BOWDEN BERRY: Thank you. I have a stack  
11 of cards here. So, the first three names I have are Chris  
12 Nord, Paul Bamberger and -- excuse me if I pronounce your  
13 name wrong -- Dr. Peter Somssich. I'm going to ask you to go  
14 to the podium and state your name clearly and if you need to  
15 spell it, spell it for the record and tell us what  
16 organizations you're with. So, with that -- Chris Nord.

17 CHRIS NORD: Thank you. Is it possible to go  
18 back to the early slide in this slideshow that talked about  
19 why 20-years? Why we're looking at this 20-years ahead? Can  
20 I see that?

21 Yeah -- well, as I was looking -- I've been  
22 trying to think of an analogy -- sorry. I'll start by giving  
23 you my name. My name is Chris Nord, N-O-R-D. I live in  
24 Newton, New Hampshire. So, I'm inside the 10-mile radius for  
25 Seabrook and I've basically lived in this region since 1981.  
26 So, I've lived entirely within the 10-mile radius since 1981.

1 I asked for this back because I've been trying to think of an  
2 analogy -- hopefully a humorous one. I don't know how  
3 humorous it is, but I've had a lot of old cars in my life. I  
4 can tell you that the difference between a 10-year-old car  
5 and a 15-year-old car -- there is not a linear relationship.  
6 If you look at new, 10-years, 15 -- problems arise in that  
7 next five-years. Problems would arise in the next 10-years  
8 that are not in a linear relationship to the previous 20-  
9 years. So, for us to pretend that this is some how an  
10 accurate look at what the plant's performance will be in 40-  
11 years is disingenuous. That must be stated. Onto my  
12 comments.

13 Three areas -- high-level waste, evacuation  
14 planning, and tritium and embrittlement -- those two  
15 together.

16 So, for high-level waste -- as was asked  
17 earlier -- where is the high-level waste to go? We have 20-  
18 times the radioactive activity of the Chernobyl accident's  
19 release contained here at Seabrook in far less than adequate  
20 a storage system -- far less than adequate. It's going to be  
21 here for the foreseeable future, which might mean many  
22 decades because Yucca Mountain is not going to open. That  
23 was the plan -- the plan was no good.

24 Why isn't going off to some permanent disposal  
25 site on Indian land somewhere a good idea? Well, the state  
26 of Nevada doesn't want it. In fact, everyone feels like we

O-01-WST

1 would feel -- the state of New Hampshire it turned out didn't  
2 want the DOE to take over seven towns by eminent domain.  
3 Nobody's going to want that. So, all over the United States,  
4 plants just like ours -- the people in those regions live in  
5 sacrifice zones where the radioactive inventory, 20-times the  
6 size of Chernobyl's release, is left right on site. That's  
7 what we're left with. Why is our homegrown dumpsite not  
8 adequate? First of all, it's here in Seabrook, which is one  
9 of the fastest-growing summer populations in the -- well,  
10 fastest-growing populations in the United States. One of the  
11 most populous beach populations in the United States during  
12 the summertime. So, we have a lot of people moving in.

13           Secondly, an above ground closely housed  
14 unhardened dry-cask bunker constitutes one of the most  
15 vulnerable terrorist targets on U.S. soil. Which is a huge  
16 worry. Should be a huge worry for our elected officials, but  
17 we don't seem to be getting traction in the state of New  
18 Hampshire with that issue. Yet, Florida Power and Light's  
19 bunker was rushed to construction years after whole agencies  
20 of the federal government were established to protect the  
21 American public from fiascos such as this. We have a roadmap  
22 for better technologies than the new home system that was  
23 implemented quickly by Florida Power and Light just as  
24 Florida Power and Light is quickly trying to implement this  
25 relicensing process. The process should be slowed down so

O-01-WST  
cont

1 that the proper technologies could be used to adequately  
2 protect the public.

3           The disposition of Seabrook's reactors high-  
4 level waste should be included within the scope of any  
5 license extension process. Sufficient time should be devoted  
6 to finding the state-of-the-art storage technologies for all  
7 U.S. commercial and military high-level waste now because so-  
8 called temporary storage must suffice to keep us safe for  
9 perhaps many decades. I want to point out for the  
10 technicians in this room that believe that this is not within  
11 the scope of these upcoming hearings -- the Generic  
12 Environmental Impact Statement, Section 5, allows for review  
13 of high-level waste storage in terms of consequence. In this  
14 case, it could be the consequence of a severe accident, for  
15 instance, due to terrorist attack. Which is just how the  
16 issue was raised in California and the Ninth Circuit Court of  
17 Appeals upheld the contentions of those that brought that  
18 litigation to court. So, this is a totally permissible arena  
19 for high-level waste to be considered within the scope.  
20 That's one.

O-01-WST  
cont

21           Evacuation Planning -- it's the second one. I'm  
22 going to just take a drink.

23           ELVA BOWDEN BERRY: I'm going to ask you to  
24 wrap it up. I have a handful of cards. We want to get  
25 everyone's comments in.

26           CHRIS NORD: Yup

1 ELVA BOWDEN BERRY: I don't want to cut you  
2 short, but --

3 CHRIS NORD: Well, you know, I bet everybody  
4 that's here would like you to stay so that their comments can  
5 be made. I'll do this really quickly.

6 Evacuation Planning was a snow job here 20-  
7 years ago. The reason -- the reason that so many rules got  
8 changed -- the field got changed 20-years ago -- was because  
9 the evacuation plans 20-years ago were not sufficient. So,  
10 someone came up here earlier and said we're dealing with it  
11 in the moment -- in the here and now. Well, in the here and  
12 now, these evacuation plans are unworkable. They've been  
13 unworkable for 20-years. Take a look. The Federal Emergency  
14 Management Agency 20-years ago -- the Region One director, Ed  
15 Thomas, said it's no good. And because of that, we have to  
16 stop the license. The Reagan administration pulled him,  
17 installed a new Region One director and they rubber-stamped  
18 the evacuation plans. That's not an adequate evacuation  
19 plan. We have twice as many people living in the seacoast  
20 region than we did 20-years ago. So, how is that going to  
21 work? That has to be included within the scope of  
22 relicensing.

O-02-SEC

23 Tritium -- tritium and pipe degradation.  
24 Almost 20-years ago, again, in a different part of New  
25 England -- the Deerfield River Valley of western  
26 Massachusetts -- exposure to tritium was linked to Down

O-03-RAD

1 syndrome -- statistical significance -- for Down syndrome and  
2 assorted other health maladies. The study was signed-off on  
3 by the State of Massachusetts. The study is available. If  
4 you needed the study and don't have it, I can give you the  
5 study because I've got it at home. So, tritium is a known  
6 evil quantity and the linkage was made 20-years ago to the  
7 Yankee Atomic reactor in Rowe, Massachusetts. Yankee Atomic  
8 was closed in the early 90s due to concerns around pipe  
9 embrittlement. Is it possible that pipe embrittlement caused  
10 the release of all of that tritium?

11           You know, I am not a technician. We've got  
12 gentlemen like Paul Blanch here who hopefully will get a  
13 chance to speak tonight, but if we've got pipes that are  
14 inaccessible and can't be monitored, then that certainly  
15 falls within the scope of the upcoming license extension  
16 hearings. That stuff has to be looked at because we cannot  
17 have tritium flowing into the groundwater and coming right  
18 across the marsh into Hampton. I mean, Winnacunnet Road is  
19 right on the marsh. I have friends that live on Winnacunnet  
20 Road. So, is it true that Florida Power and Light is digging  
21 test wells because they're trying to track tritium? I mean,  
22 these are hugely important concerns and should be included  
23 within the scope of these hearings. Thank you for your  
24 audience.

25           ELVA BOWDEN BERRY: Thank you for your comment.  
26 We're going to ask everyone to keep your comments to no more

O-03-RAD  
cont

1 than 10-minutes because I have really a stack of cards and I  
2 want to let everybody have the opportunity to speak and I  
3 just want to remind you that we're talking about  
4 environmental scoping. Paul Bamberger is the next speaker.  
5 If you could just go to the podium and state your name  
6 clearly and where you're from. Thank you.

7 PAUL BAMBERGER: Is this all right? I'm not  
8 familiar with this -- I just have one comment stated three  
9 ways. Tonight I saw something happen twice already that's  
10 bothered me for years in this.

11 Recently I read a quote from an official from  
12 Seabrook who said -- We can handle the nuclear waste for the  
13 next 20-years and beyond. Well, beyond's faith -- there's no  
14 information. When people answer serious questions with words  
15 like `beyond` it really scares me. And he also did it  
16 tonight to me. He said -- Well, it's safe until the year  
17 2080. But it's been decades now that you had a chance to  
18 prepare for 2081 and I heard you say nothing about 2081.  
19 It's another non-answer to a very serious question. And you  
20 get this all the time. You have to be very careful with the  
21 way they use the language.

P-01-WST

22 And that other person -- all he had to say to  
23 you was the number. And it's easier to engage you in some  
24 foolishness rather than say -- None have been refused. It  
25 would've taken two seconds and it would've been over. But  
26 this circular non-answer has been going on ever since

1 Seabrook has been going on. And not just in the Seabrook  
2 issue, but generally. But there's three tonight -- two  
3 tonight and one in the newspaper. Beyond `beyond` -- what  
4 does that tell me? Nothing. 1980 -- what does that tell me  
5 about my children in 1981? Nothing. It really scares me.  
6 Thank you.

7 ELVA BOWDEN BERRY: Mr. Bamberger, could you  
8 tell us where you're from?

9 PAUL BAMBERGER: New Hampshire.

10 ELVA BOWDEN BERRY: Now, Dr. Peter -- Somssich?

11 DR. PETER SOMSSICH: Yup, thank you.

12 ELVA BOWDEN BERRY: Please spell your name for  
13 the record and tell us what organization you're with.

14 DR. PETER SOMSSICH: Yes. It's Peter Somssich,  
15 S-O-M-S-S-I-C-H. I'm a resident of Portsmouth and since my  
16 memory's not so good, I've written up my comments that I've  
17 given to your clerk over there.

18 I'm attending the session to express my  
19 opposition to the 20-year extension of Seabrook Nuclear Power  
20 Plant's current operating license. Not only do I reside  
21 within the official evacuation zone of this power plant  
22 should an emergency be declared, but I'm also a trained  
23 atomic scientist with both training and professional work  
24 relevant to nuclear power safety. I have a Ph.D. from the  
25 University of Heidelberg, Germany in physics and have worked  
26 professionally as a research scientist on nuclear energy

1 related issues. Currently, I am employed as an analytical  
2 scientist in a non-nuclear related field and do not have a  
3 personal vested or financial interest to protect with regard  
4 to Seabrook Nuclear Power Plant.

5 In addition to my initial training in various  
6 professional positions, I have continued to be a permanent  
7 student of energy related issues, nuclear power issues,  
8 alternative energy issues surrounding nuclear proliferation  
9 for the past 40-years. My objections to the 20-year  
10 extension of the operating license can be grouped into four  
11 categories. Number 1 -- What's the hurry? 2 -- Financial  
12 liability. 3 -- Safety and security concerns. 4 --  
13 Materials for nuclear weapons proliferation. Also I'd like  
14 to propose an alternative suggestion to any operating license  
15 extension should one be considered.

16 What is the hurry? I am sure that I'm not the  
17 only member of the public who was surprised to see a request  
18 for an extension of a license that is still valid for another  
19 20-years. To apply for an extension 5-years before the  
20 expiration date would not surprise me, but 20-years -- that  
21 is strange. The only logical explanation I can think of is  
22 that this is an insurance policy against possible problems  
23 with the plant in the next 40-years and/or that the owners of  
24 the plant see what all outside experts already know, that in  
25 fact nuclear power is too expensive and will not be able to

Q-01-LIC

1 compete with other sources of power in the future, even as  
2 recently as the next 10-years.

Q-01  
cont

3 Financial viability. What independent energy  
4 experts except those who are employed by nuclear power  
5 industry already agree is that nuclear power is currently not  
6 able to compete with other energy options on a free-market  
7 basis, were it not for the federal government, which is  
8 providing it with large low-risk loans and insurance  
9 protection against liability. This type of power is already  
10 the most expensive kind available and will not improve  
11 significantly in the near term future, if at all. That is  
12 why private investors have rejected even very generous  
13 options to build a new power plant over the last 30-years.  
14 This energy is not renewable and therefore not sustainable  
15 and all indications are that at least in the United States  
16 and most of the rest of the world, it will stay that way.

Q-02-LIC

17 Safety and Security Concerns. The safety  
18 record of many U.S. nuclear power plants over the past 30-  
19 years has been better than was expected by the critics.  
20 However, the strong scrutiny brought to bear by both  
21 environmental groups and government agencies must be credited  
22 with most of this outcome, since otherwise profits would have  
23 been the main focus. It is, however, also important to point  
24 out that Seabrook's initial license was conditioned by the  
25 requirement that a final destination point for its nuclear  
26 waste be determined prior to initial operation. This never

Q-03-SEC

1 happened because the federal government never provided such a  
2 location. If Seabrook had told the public at the time that  
3 the final destination of the waste was in fact on the  
4 property of Seabrook Station, perhaps that license would  
5 never have been issued. Regardless of the disposal issue,  
6 this power plant must be considered a possible terrorist  
7 target and the level of security needed for adequate  
8 protection must be very high. However, undisclosed visits by  
9 government teams testing such security at nuclear power  
10 plants have concluded that the current security measures are  
11 not enough. This means that there will be added additional  
12 expense for all nuclear power plants in the near future.

Q-03-SEC  
cont

13                   Materials for Nuclear Weapons Proliferation.  
14 Not only is a nuclear power plant a potential terrorist  
15 threat, but it must also be viewed as a target for groups  
16 attempting to procure nuclear fuel materials to enable the  
17 production of nuclear weapons. With increasing storage of  
18 nuclear waste on-site, as is the current case currently at  
19 most nuclear sites, without the full protection against theft  
20 that a centralized facility could provide, the attraction for  
21 both terrorists and nuclear weapons brokers will only  
22 increase.

23                   Finally, an alternative suggestion. As many of  
24 you present today already know, most European countries have  
25 already turned their backs on nuclear power for many of the  
26 reasons already mentioned above. However, in Germany, which

Q-04-LIC

1 is phasing out its nuclear energy industry, a number of  
2 environmental groups have supported the extension of nuclear  
3 power licenses, if they are safe enough to operate, in  
4 exchange for the payment into a renewable energy fund of some  
5 portion of the windfall profits that operators and owners  
6 will reap as the result of a license extension. Since most  
7 nuclear power plants are built for a specific number of years  
8 in operation and have been budgeted and paid for during these  
9 years, a license extension provides extra operating years and  
10 extra revenue. It would seem only a fair deal to ask for  
11 some of that windfall profit, say 50%, to be invested in a  
12 fund for truly renewable energy projects should an extension  
13 be granted.

Q-04-LIC  
cont

14 I appreciate this opportunity to submit this  
15 statement. Thank you.

16 ELVA BOWDEN BERRY: Thank you. The next three  
17 speakers will be Debbie Grinnell, Cathy Wolff and William  
18 Harris.

19 Please state your name and your affiliation  
20 when you get to the mic. Thank you.

21 DEBBIE GRINNELL: I'm Debbie Grinnell and I'm  
22 with the C-10 Research and Education Foundation and serve  
23 both as a staff person doing research and also as a founding  
24 Board member. When Seabrook submitted their application 20-  
25 years in advance of their license expiration -- which would  
26 bring the plant to 2050 -- we were very aware that the parts

R-01-SAF

1 and the underlining underpinning construction foundation of  
2 this plant has parts from the 1970s. We looked over some  
3 recent inspection reports to look at how NextEra was managing  
4 their component systems and parts. What was immediately  
5 brought to our attention after the last refueling and  
6 inspection report was that NextEra was cited for submerged  
7 electrical cables in two-vaults that were underwater --  
8 underwater, which is saline, which is highly corrosive.

9           So, what we're looking at here is inaccessible  
10 electric cables that are in water that is known to cause  
11 early failure. So, we thought what's the most responsible  
12 thing to do here? We looked into some recent research. We  
13 looked into what the NRC was doing and the NRC had actually  
14 contracted/sponsored a study with the Brookhaven National  
15 Labs and asked them to assess the early cable failures before  
16 the 40-year license expiration and to analyze which cables,  
17 how many -- but they didn't actually do that because they  
18 were a research institute and what the generic letter  
19 requested was not to find/locate on the schematics every  
20 buried/submerged underground pipe and electrical cable -- it  
21 was to identify the ones that are already failed.

22           So, what we needed to know up-front was how  
23 many have failed, where are they, what manufacturers are most  
24 responsible. What were the years of the greatest failure?  
25 1970s. We still don't know what manufacturer manufactured  
26 and what usage NextEra has. What we do know is that none of

R-01-SAF  
cont

1 the cables that are submerged at Seabrook were qualified for  
2 submersion. They are not marine cables. They are not  
3 qualified, which means that the plant is now operating  
4 outside of its design basis and in violation of Federal Regs.  
5 The NRC has done a very minor citation. There is no fine.  
6 They were asked to pump out the water and come up with a  
7 long-term solution. What hasn't happened in this industry --  
8 we haven't identified where all the cables are. How many  
9 there are? How many are submerged? And what condition  
10 they're in.

11 The reason we can't do that is because the only  
12 way this can be done is visually. The Brookhaven National  
13 report reported that the surveillance testing, the in-service  
14 program, the maintenance rule, the aging program -- does not  
15 identify the cables before failure. It is impossible to do.  
16 So, short of instituting -- which has not been done by the  
17 NRC -- a responsible program that is based on a regulation  
18 that would enforce the industry to actually: know where all  
19 the cables are, the condition of them. We cannot go forward  
20 with this.

21 We have, as a result of this knowledge, asked  
22 Paul Blanch, who is a energy consultant. He's an electrical  
23 engineer. He worked for Northeast Utilities and many other  
24 utilities. His expertise is in instrument and control  
25 engineering. I would like to defer to him at this point  
26 because we are not technically based and that's why we asked

R-01-SAF  
cont

1 an energy consultant to give us advice on this situation.

2 Paul -- can I ask you to speak for me?

3 ELVA BOWDEN BERRY: Debbie, we're not going to  
4 take people out of order. Paul spoke earlier today, so we  
5 want to get to the speakers who haven't been here.

6 AUDIENCE MEMBER: I'd like to hear him.

7 CATHY WOLFF: I'm next in line. Can I yield to  
8 him if I'm next in line? Is that appropriate?

9 ELVA BOWDEN BERRY: Well, we won't --

10 PAUL BLANCH: I'm a neutral party here. Anyway  
11 --

12 ELVA BOWDEN BERRY: We want to give everybody a  
13 chance --

14 PAUL BLANCH: My name is Paul Blanch, B-L-A-N-  
15 C-H. Thank you, Debbie. And I just want to give another  
16 example of NRC enforcement, or as some people talk about, NRC  
17 enforcement. I was tempted to get up here and light up a  
18 cigarette and that would endanger the health and safety of  
19 the people in this meeting room and I'm sure the police  
20 officer in the back would come up here, drag me out, maybe  
21 impose a fine and maybe even put me in jail or something like  
22 that. I'm sure the local police would enforce the  
23 regulations. Now, let's contrast that to Seabrook. Seabrook  
24 is violating the regulations. They're emitting hazardous  
25 substances -- tritium and possibly other -- which are  
26 unmonitored that are a health hazard.

} K-03-SAF

1           So, what does the NRC Office of Enforcement do?  
2   They clearly identify it's a violation of regulations. Same  
3   as with cable. And they issue them a severe non-cited Green  
4   violation, but they don't make them put out the cigarette.  
5   That thing is still leaking tritium. In the same respect, we  
6   have the cable issues, which Mrs. Grinnell just talked about,  
7   and we have cables that are clearly outside their capability  
8   to operate per 10 CFR 50 Appendix B, Criterion I think is 15  
9   and 16, Design/Control/Inspection. The NRC knowingly allows  
10  these plants to operate outside of its design basis. We know  
11  that the cables must be qualified in order to determine  
12  whether that plant could safely operate and its emergency  
13  equipment will properly operate.

14           I've just got so many examples -- the buried  
15  pipe inspection program -- we just found out and again  
16  working with the General Accountability Office that the  
17  buried pipe inspection program only covers steel pipes.  
18  Well, they've got every other kind of material pipes and then  
19  the real shocking thing that came up in the GAO investigation  
20  is the buried pipe inspection program only looks for external  
21  corrosion. So Seabrook says -- We'll look at external  
22  corrosion when the thing fails -- is basically what they say.  
23  It just goes on and on and on. We need a regulatory agency  
24  that will actually look at their regulations, enforce their  
25  regulations and if the plant is not compliant with those

K-03-SAF  
cont

1 regulations change the regulations or shut down the plant  
2 until the plant can operate.

3           Again, with this license renewal application --  
4 it's just a license to continue to operate outside of the  
5 regulations. The NRC accepts, as Mrs. Grinnell said,  
6 Seabrook's program and other programs like Vermont Yankee who  
7 have observed water in manholes. They accept -- We'll look  
8 at the manholes once every two-years to see whether there's  
9 any water in. If there's any water in there, we'll pump them  
10 out. Use a little engineering common sense. When you have  
11 manholes connected by conduits that contain cables and if I  
12 have water in each end of the conduit or the manholes and I  
13 pump it out and it's good for another two-years -- how do we  
14 ever, ever know that those cables are dry? We don't.

15           Take a look at the Brookhaven report, which is  
16 sponsored by NRC research. They say -- You must take a look  
17 and determine if these cables are submerged. Nothing is  
18 being done presently or for the next 40-years other than  
19 Seabrook says -- We'll look at them every once in awhile and  
20 see if they're dry. If not, we'll pump them dry and we'll  
21 continue to generate those mega-dollars everyday.

22           I can go on and on on the shortcomings of this  
23 application. The fact that insufficient information is  
24 provided in there for anyone to determine whether this plant  
25 is safe -- whether it is in compliance with the regulations.  
26 I think that the NRC needs to give a hard look at how they

K-03-SAF  
cont

1 take enforcement action and they cannot just turn a blind eye  
2 to clear regulations, whether it be environmental  
3 qualifications or whether it be 10 CFR 50, 55(a) for piping  
4 inspections and leaky terminations, structural integrity of  
5 pipes. There is no assurance. I was in the Navy, as Mr. Bo  
6 Pham was in the Navy. Those nuclear power plants -- we slept  
7 less than 100 feet away from them. Those were safe. They  
8 were regulated properly. They were operated properly. When  
9 I got out of the Navy and I saw how these power plants were  
10 built and not regulated -- I was totally shocked. This is a  
11 different world from the Navy program. It's my belief that  
12 unless this regulatory agency can really do its job --  
13 enforce its regulation -- that these plants should not  
14 continue to operate as they are right now with unqualified  
15 cables and pipes in unknown conditions leaking God knows  
16 what. Thank you.

K-03-SAF  
cont

17 ELVA BOWDEN BERRY: Thank you for your comment.  
18 Okay -- Cathy Wolff. And please I'd ask you not to defer  
19 your time because there are people who haven't had the  
20 opportunity to speak, so they need to have that opportunity  
21 and some people have already spoken once today. Thank you.  
22 State your name and your affiliation.

23 CATHY WOLFF: My name is Cathy Wolff. I live  
24 in Kittery, Maine. I belong to different groups, but I'm a  
25 concerned citizen. This is not going to address the

1 technical or the environmental. You're getting a lot of  
2 information on that. This will be fairly short.

3 It was almost 40-years ago that other NRC  
4 representatives sat in similar rooms in New Hampshire  
5 listening to citizens suggest that the salt marshes in  
6 Seabrook might not be environmentally and otherwise the best  
7 place to put a nuclear power plant. I'm sure you are all  
8 knowledgeable of this history. But -- anyway. While those  
9 people carefully and sometimes emotionally outlined their  
10 concerns, some of the NRC reps talked, even laughed with each  
11 other or sat there looking bored. They clearly were not  
12 listening. And why should they?

13 The hearings -- and there were many hearings in  
14 those years -- were pro forma. Soon, a construction permit  
15 was issued with some changes in design brought about by the  
16 Herculean efforts of people who believed that if they could  
17 not stop the nuke, at least they could try to make it safer.  
18 Despite the permit, protests continued -- drawing  
19 international attention to an industry that had essentially  
20 gone unquestioned even by the NRC. Public opinion began to  
21 shift as people realized there were a lot safer, a lot  
22 cheaper and a lot more effective ways to generate  
23 electricity. The nuclear industry suffered. Wall Street  
24 withdrew support. Nuke plants were shelved. But we did not  
25 freeze in the dark -- a promise that had been made to us by  
26 the builders of Seabrook.

1           Then, in the last few years the industry, as  
2 you well know I'm sure, launched a new political offensive to  
3 help assure its comeback would not be derailed again by  
4 public opinion. It sought even larger tax subsidies with a  
5 lot of help from the last administration. A streamlined  
6 licensing process that gives an even shorter shrift to public  
7 input than existed previously. And they moved quickly to  
8 extend the lifetime of existing plants. I believe there have  
9 been 50, so far, that have applied for and received operating  
10 license extensions. Ironically, those extensions will only  
11 increase the chances of a serious accident. An accident that  
12 could be a PR nightmare for the nuclear industry -- not to  
13 mention what it might do to the people who live nearby.

14           There were reasons that your predecessors set a  
15 lifetime of 40-years before a plant should be decommissioned.  
16 It wasn't whim. Do any other power generating plants -- oil,  
17 coal -- have decommissioning dates set by law? I haven't  
18 been able to find out, but I don't think they do. It's nice  
19 to see that manners -- and I'm mentioning this mainly because  
20 that's the way it felt this afternoon, not necessarily at the  
21 beginning of this evening's session -- or perhaps maybe just  
22 improved PR device -- although after the beginning of this  
23 evening's session, I doubt that -- has crept into the NRC's  
24 public hearing process since the 1970s, but I would hope  
25 that's not all that's changed. I would hope that you -- you  
26 NCR [sic] representatives -- will go back to Washington and

S-01-LIC

1 please don't just review the issues raised here -- which you  
2 have to admit, at least this afternoon and beginning already  
3 this evening, are substantial and thought-provoking. You may  
4 not be able to stop nuclear companies from applying for  
5 absurdly premature license renewals -- although let's hope  
6 that a rule change will -- but you certainly don't have to  
7 smooth the way for their approval. You can, with diligent  
8 study, recommend -- Hey, wait 10-years, try it then.

9 Please consider as you deliberate that you have not  
10 heard -- at least not this afternoon and not so far this  
11 evening -- a single argument today directly related to why an  
12 operating license should be extended 20-years before it  
13 expires. Not a single argument. Even the handout from the  
14 company that I picked up out there that's seeking the  
15 extension does not make a lot of sense. So they can plan  
16 ahead, they argue. Well, does that mean that without an  
17 extension they plan to let things fall into dangerous  
18 disrepair? In fact, your very own PowerPoint fails to  
19 provide even a substantial -- a word that got bantered around  
20 earlier today -- reason much less a complete one.

21 The fact that the folks at Seabrook provide  
22 jobs, give money to the United Way and are generally good  
23 guys and good community members does not address the issue.  
24 I am sure that 10-years from now they will still be good guys  
25 and loyal Chamber of Commerce members both in Exeter and  
26 Hampton.

S-01-LIC  
cont

1           The only final thing I have to say is in your  
2 PowerPoint, you have on page 21 or slide 21 -- the Final  
3 Agency Decision -- the Commission considers Safety  
4 Evaluation, Environmental Impact, NRC inspections,  
5 recommendations from the ACRS -- how about also considering  
6 public input? Thank you.

S-01-LIC  
cont

7           ELVA BOWDEN BERRY: Thank you. Next we're  
8 going to have William Harris, then Skip Medford and Gil Brown  
9 . Please state your name and your affiliation when you get  
10 to the mic. Thanks.

11           WILLIAM HARRIS: Good evening. My name's  
12 William Harris. I live in Newburyport, Massachusetts where  
13 we have many people concerned about emergency evacuation.  
14 But my primary interest comes from managing research projects  
15 at the RAND Corporation in Santa Monica, California on  
16 nuclear energy, economics, reprocessing, nuclear  
17 proliferation for Robert Seamans and Bob Fri of ERDA, then  
18 the Department of Energy. I served on advisory panels to  
19 assess nuclear alternative fuel systems as to their  
20 proliferation resistance. I did research projects on  
21 alternative energy systems -- solar, et cetera. I've been an  
22 environmental attorney, so I've also litigated environmental  
23 issues.

24           I'd like to address mainly issues relating to  
25 the scope of the Environmental Review. First, what has  
26 changed significantly since the licensing hearing that ended

T-01-SEC

1 with the license in 1990 for the Seabrook plant? Several  
2 significant changes have occurred. We have a significant  
3 population increase -- both in southern New Hampshire and in  
4 northern Massachusetts. You'll get the 2010 census data  
5 during your review for this license. We have increased  
6 mobility of people. So, during the summer, we have  
7 much more peaking of beach traffic. We have a great infusion  
8 of population at the beaches, which raises a challenge for  
9 evacuation planning. We have some setbacks in long-term  
10 high-level waste management, but I think the Yucca Mountain  
11 thing is not entirely over. It may depend on elections this  
12 year and later. There's also an issue of alternative dry-  
13 cask storage as a technology that might be considered for  
14 mitigation in lieu of on-site swimming pool storage of waste  
15 from this plant. And another major change since 1990 -- and  
16 this is the primary field I work with. I used to plan and  
17 draft arms-control treaties on leave working for the State  
18 Department -- The Arms Control and Disarmament Agency -- the  
19 United States through this Nunn-Lugar Program has bought and  
20 repossessed by various means both high-level waste and low-  
21 level waste and nuclear fuel rods from other countries, which  
22 are important for our non-proliferation efforts. So, I  
23 believe it is a positive factor that needs to be considered  
24 that since the United States has now accumulated much more  
25 nuclear material -- from other nations and has decommissioned  
26 a substantial number of nuclear weapons -- that the recycling

T-01-SEC  
cont

T-02-WST

1 of this material in low-level enriched fuel assemblies is a  
2 much safer alternative for those fuels than to leave them  
3 abroad in a Kazakhstan or any other number of other places.  
4 So, these are major changes that need to be considered in the  
5 relicensing. Though I also find it troubling that the  
6 relicensing is done so far ahead. I believe there's some  
7 opportunities that ought to be included in the design of the  
8 Environmental Review.

T-02-WST  
cont

9 My first concern has to do with emergency  
10 evacuation planning and recovery operations. Not only did  
11 FEMA have trouble with the original evacuation planning, but  
12 the governor of Massachusetts, then Governor Dukakis, could  
13 not approve in 1990 the evacuation plan. We already had  
14 traffic saturation troubles then.

15 I've been working on mitigation for the  
16 Whittier Bridge Project, which is I-95 crossing the Merrimack  
17 River. We're going from 6 to 10-lanes -- 8-lanes and two  
18 emergency lanes. There've been significant studies mainly  
19 from Florida since hurricane Andrew -- many important reports  
20 from the National Research Council on contraflow evacuation  
21 opportunities and so ultimately we will have more flow-  
22 capacity -- we'll have a significant, about a two thirds  
23 increase, in flow south in the event of an emergency at  
24 Seabrook. But we're getting saturation on I-95. We have not  
25 yet had the adequate modeling of connectors between say Route  
26 110 going east/west between I-95 and 495. So, we really

T-03-SEC

1 don't have the flow-capability to handle evacuations in a  
2 major emergency, especially in the summer when we have beach  
3 traffic.

4 Now, a most significant change since 1990 that  
5 I think needs to be considered in the Environmental Review  
6 and I think also in the Safety Review -- has to do  
7 unfortunately with the development of volitional actors --  
8 terrorists -- who would like to take out high-value targets  
9 that can cause great harm.

10 We have two important de-classified findings  
11 that are pertinent to the Seabrook relicensing. First we  
12 have the 9/11 Commission, which in its official release  
13 indicated that those who planned the World Trade Center  
14 bombings had actually had Seabrook as a priority target just  
15 before that. That's all online in the 9/11 Commission  
16 report.

17 Then more recently Curt Weldon, the Congressman  
18 from Pennsylvania who served on the Armed Services Committee  
19 of the House, released information that a group of mainly  
20 Pakistani citizens in Canada with 19 arrests were considering  
21 an attack on Seabrook after 9/11. So, I think as we're  
22 planning for the operation of this plant past 2030 -- even in  
23 the next decade -- we need now to take a re-look as part of  
24 the environmental mitigation and risk assessment for this  
25 relicensing, the consequences of having actors who are

T-03-SEC  
cont

1 malevolent rather than just the risk that come from nature  
2 and from failures of technology that are inadvertent.

3 I believe the C-10 Coalition -- I am not a  
4 member. I am not opposed to nuclear power -- but I believe  
5 they've done some important work to model weather patterns  
6 from Seabrook. It may have made sense for the 1990  
7 assessment to look at prevailing winds. Prevailing winds  
8 mainly go west to east. Unfortunately, when you are dealing  
9 with malevolent actors, you will not get an attack when the  
10 prevailing winds go from west to east. You may get it when  
11 they go north/south because that would pick up a much larger  
12 population north of Boston that would be exposed in the event  
13 of a terrorist attack.

14 So, I suggest that there are opportunities if  
15 you take the weather modeling that was done by the C-10  
16 organization and other studies and get the assistance from  
17 the Defense Threat Reduction Agency -- they have the nation's  
18 best models. They have a declassifiable version that can do  
19 the plume analysis when the winds are blowing in any number  
20 of directions, but you should include as the greatest threat  
21 a north/south wind pattern and then you should probably  
22 include the prevailing wind patterns and you should include  
23 summer beach times -- our summer traffic on I-95 peaks  
24 between May and October. The main peaks are July/August to  
25 Labor Day. You have major peaks in congestion on weekends.  
26 If you do that -- I believe if you did that analysis and the

T-03-SEC  
cont

1 U.S. Department of Transportation now has excellent models --  
2 their Office of Emergency Evacuation -- they have excellent  
3 software models. NRC has a group of excellent software  
4 models on emergency evacuation.

5 If you get the help of the Defense Threat  
6 Reduction Agency, which has a colonel in this region who  
7 would do the modeling for you, I believe you would be able to  
8 develop much better mitigation planning. So, you do not  
9 evacuate everybody in a major emergency. You only evacuate  
10 the people who are at high risks of radiation or other  
11 threats. That would be essential to do.

12 You should also include consideration of what's  
13 been developed by the U.S. Department of Transportation for  
14 contraflow traffic where they provide in their contracting  
15 that all contractors working on interstates are responsible  
16 to remove their construction equipment in an emergency  
17 because during hurricane evacuations in Florida and  
18 elsewhere, we've had problems with contraflow traffic when  
19 equipment is left on these interstates. So, I believe that  
20 this is at least one advantage of this early relicensing  
21 application, which is we have an inadequate set of emergency  
22 plans to evacuate people. We have good software in the  
23 federal government in different parts. And an excellent  
24 plume analysis done by the Defense Threat Reduction Agency  
25 that's available to NRC. I hope that as part of this  
26 relicensing, you consider mitigation measures that would be

T-03-SEC  
cont

1 important for both evacuation and recovery operations in the  
2 event of a terrorist attack or just an accident at the plant.

3 I also hope you'll consider dry-cask storage  
4 options, so that you can get the spent-fuel assemblies that  
5 are now on site at Seabrook off that site. That could also  
6 reduce a target of attack and radiological harm.

T-03-SEC  
cont

7 So, one other aspect I think that you should  
8 consider in a relicensing application is alternative nuclear  
9 energy systems where there are scale economies to be on the  
10 same site because you already have a site with all the  
11 infrastructure and the security systems that are now likely  
12 to be much less vulnerable. Some of the Babcock and Wilcox -  
13 - I may not have the name right -- plants that are underwater  
14 at all times, so that even if an aircraft were to come at  
15 just the right angle -- and I've supervised modeling of  
16 aircraft attacking nuclear power plants and LNG plants and  
17 these plants were not designed for direct attack by aircraft  
18 that are purposely trying to take out the plant.

T-04-ALT

19 But these plants do have some redundant  
20 features -- under many conditions they would survive an  
21 aircraft attacking a nuclear plant -- but a safer option is  
22 to have plants that are always protected, so even if an  
23 aircraft came at just the right angle with just the right  
24 amount of energy that you would have a safer outcome. So, I  
25 believe that when you're considering relicensing for this  
26 long period of time, one ought to consider alternative

1 nuclear plants at the same site as an option to consider in  
2 lieu of just automatically extending a license for a plant  
3 that simply was not designed for an era of terrorism.

T-04-ALT  
cont

4 So, I will at some point provide written  
5 comments. I've taken much time and I thank you.

6 ELVA BOWDEN BERRY: Mr. Harris, thank you.  
7 Could you stay there for a minute. You mentioned ERDA and  
8 could you specify what that is for the record?

9 WILLIAM HARRIS: ERDA -- The Energy Research  
10 and Development Administration had a research council and I  
11 supervised many of their research projects at the RAND  
12 Corporation. That was then run by a Robert Seamans and the  
13 Deputy Director Robert Fri, F-R-I. So, they were between the  
14 Atomic Energy Commission and the Department of Energy. I  
15 also worked for the Department of Energy doing studies, as  
16 well. I think that period is 1976, when the AEC goes out of  
17 business, to about 1980 with the Department of Energy. So,  
18 E-R-D-A is in the middle.

19 ELVA BOWDEN BERRY: Okay. Thank you very much.  
20 We'll have Skip Medford.

21 SCOTT MEDFORD: Thanks very much for the  
22 opportunity. You stated my name. I'm a biologist. I also  
23 live in New Hampshire, perhaps closer than other commenters  
24 this evening. I'll keep my comments very brief. In case  
25 nobody said it yet -- as long as the owner/operators can

U-01-PRO

1 satisfy valid concerns about the plants continued viability,  
2 I support license renewal.

U-01-PRO

3 Second -- and primarily addressed to the NRC  
4 members here. Will you conduct or will you ensure the  
5 applicant conducts an equitable review of taxes paid and  
6 contributions made to various states, towns, residences  
7 impacted by the siting and continued operation of the plant?  
8 Perhaps on a per megawatt basis, per area impacted basis or  
9 other comparable metric within the industry or within the  
10 region? Thank you very much.

U-02-SOC

11 ELVA BOWDEN BERRY: Thank you. Gil Brown. Can  
12 you state your organization when you get to the mic.

13 PROFESSOR GILBERT BROWN: Sure.

14 ELVA BOWDEN BERRY: Thank you.

15 PROFESSOR GILBERT BROWN: Hi, good evening.  
16 I'm Gilbert Brown, a professor of nuclear engineering at the  
17 University of Massachusetts in Lowell. So, I'm not exactly a  
18 resident, although I do swim at the beach and I certainly  
19 enjoy the seacoast as much as anybody that does live around  
20 here. So, you might ask why am I here? What are my  
21 comments? Well, it's a very good question, actually. I'm  
22 listening to a lot of the technical comments or comments that  
23 deal with technical issues -- this probably isn't the forum  
24 to debate each one of the issues, but all these issues need  
25 some airing. I'm confident that you will air those. As a  
26 previous speaker said, if there are issues with the safe

1 operation of the plant, then the NRC has the right and the  
2 responsibility to say -- Stop. I know you've done that to  
3 plants in New England and elsewhere and if the plants aren't  
4 safe to run, they shouldn't run.

5 So, one of my main points is to separate the  
6 issues about license renewal from the running of the plant.  
7 I'm almost certain in the presentation that you make that  
8 point. So a lot of the comments here I think deal with that  
9 piece of the NRC business of being a independent regulator  
10 overseen by Congress, commissioners appointed by the  
11 president and reviewed by the Senate, ACRS appointed by this  
12 process of independence challenging those assumptions --  
13 challenge the very basis upon which this nation is a stable  
14 democracy. I'm not here to challenge that. Do your job.  
15 And I'm comfortable with the answers. If the answer is -- no  
16 go. Then it's no go.

17 License renewal -- I think the issue of why  
18 now? Why not N minus five and whatever that is -- 15-years  
19 down -- at the last minute? Oh, I think you'd be really,  
20 really uncomfortable. I would be if it was a last-minute  
21 rush to get the license renewal. License renewal is not a  
22 permission to operate the plant. That happens every day with  
23 -- two on-site inspectors? A myriad of inspection reports.  
24 People were asking what's different from 40-years ago? Oddly  
25 enough, I can remember 40-years ago. Better than maybe  
26 yesterday, sometimes. But, really and I'll be the first in

V-01-PRO

1 this audience to mention TMI, which I know you know what it  
2 means and my students think it means To Much Information.  
3 But we established the Institute -- we, the country, the  
4 nation, the owners of the plant -- established the Institute  
5 for Nuclear Power Operations. This is a level independent  
6 from the requirements of the NRC. This is an excellence  
7 model. The plants that you knew 25-years ago, 30-years ago -  
8 - in Seabrook's case 20-years ago -- are not the plants that  
9 are operating today. The performance speaks to that. The  
10 attention to detail. The maturation of -- if you'll pardon  
11 the expression -- safety culture. Three-way communication.  
12 Attention to detail. And in my business that I do for a  
13 living -- educate the workforce for the future.

14           The attention to detail, the knowledge base --  
15 it's a very different environment than it was. If you  
16 haven't been around up close and personal -- I know you have  
17 issues. There are issues every day. We fly on airplanes.  
18 There are issues every day. We cross the street. There are  
19 issues every day. I mean life is an issue with one  
20 certainty. So, it's different though today. It's better.  
21 The bar has been raised and the performance speaks to that.  
22 The quality, the detail, the attention to safety -- the  
23 oversight by the commissioners and the staff. It's a  
24 different world. I can attest to that.

25           One of the things I do is independently review  
26 the training and issue decisions as to -- Is this an

V-01-PRO  
cont

1     accreditable training program? Are the people at the site --  
2     and every site has to do this -- training the workers to the  
3     standards not of the NRC, but of the INPO standards. They  
4     are so high that they carry the weight of regulation.

5                     And I can attest to the fact that people take  
6     this seriously. And the plants are running safer and  
7     therefore better -- a figure of merit, which speaks to the  
8     economics. It's a red herring to say the nuclear plants  
9     aren't economic. Every analysis says baseload electricity  
10    provided by nuclear power plants are the most economic  
11    electricity in the country. For sure it's the greenest. No  
12    CO2. You can shake your head. There isn't a -- well --

13                    AUDIENCE MEMBER: Yes, there is.

14                    PROFESSOR GILBERT BROWN: I'm glad you finished  
15    my thought, thank you. We study this -- I'm studying this  
16    right now with a graduate student putting out a sort of a  
17    white paper. There is no -- too coin a phrase -- free lunch.  
18    We all leave footprints. Every energy source leaves a  
19    footprint, be it a windmill, be it a solar panel or be it a  
20    nuclear plant. You know what - we're going to need all of  
21    them to meet the requirements -- I know the congresswoman,  
22    the State Senator -- I don't know if she's still here. Is  
23    that you? I can't -- I guess she left -- talked about in her  
24    opening comments about keeping New Hampshire safe. But it's  
25    also keeping New Hampshire with electricity because without  
26    electricity, nobody is safe.

V-01-PRO  
cont

1           That's what Seabrook does -- it provides 24/7  
2           electricity and it does it over 90% of the time. In the 80s,  
3           if you were 80% of the time you were a good performer. The  
4           average was in the 60s. Even in school, that's not a good  
5           average. So, the industry average now is over 90%. I don't  
6           know what Seabrook's number is today. It could be 95% --  
7           something like that. It's really run well. That's a figure  
8           of merit. It means attention to detail is being paid. So, I  
9           want to --

10           MARY LAMBERT: Is this the S-E-I-S?

11           PROFESSOR GILBERT BROWN: I beg your pardon?

12           MARY LAMBERT: Is this speaking to the exam  
13           question -- the S-E-I-S?

14           ELVA BOWDEN BERRY: Hold on, Mary. Let me  
15           bring you the mic.

16           PROFESSOR GILBERT BROWN: It's as much to that  
17           question, ma'am, as I believe I've heard from all the other  
18           speakers and no one else made comments to the ideas of  
19           terrorism, the ideas of plant performance, which is the  
20           everyday job. I have spoken to the issue that 20-years, I  
21           believe -- and here's my last point, frankly. The 20-year  
22           license renewal is, albeit, arbitrary -- for sure. It's a  
23           regulation. They say you can do in 20-years, so why not do  
24           it in 20-years. That's not the point.

25           The point, I believe, is that this is a mature  
26           technology. In the business I'm in, we're talking about

V-01-PRO  
cont

1 careers. We're not talking about consulting, coming to show  
2 up to work one day and doing another job. These are lifelong  
3 careers. We're training our students to work in a field --  
4 to work at the power plant -- as a career. I believe that  
5 that's maybe one of the unstated positive aspects of going  
6 forward with a plan that has the plant licensable,  
7 operationable, for that period of time. We can create  
8 academic programs. We can work with the community college to  
9 train people to work in the plants and keep providing  
10 reliable energy for the good citizens of, not just New  
11 Hampshire, but New England. Thank you.

V-01-PRO  
cont

12 ELVA BOWDEN BERRY: Thank you for your  
13 comments. I'm going to remind everyone as Jeremy said,  
14 there's four-ways to submit comments as indicated on the  
15 slide that's up right now. At this point, I don't have any  
16 cards for any new speakers anymore, so the cards I have left  
17 are for people who have spoken already today. So, I want to  
18 invite anyone new if they want to give a comment before I  
19 open the floor to people who have commented before.

20 Okay, the first person is Tom Noonis. I just  
21 want to ask that you keep your comments brief since we have  
22 your comments already in the record today.

23 TIM NOONIS: Thank you. For the record, it's  
24 Tim.

25 ELVA BOWDEN BERRY: Tim -- sorry.

1                   TIM NOONIS: That's all right. The last is N-  
2 O-O-N-I-S.

3                   My name is Tim Noonis and this evening I'm  
4 wearing two different hats. My first hat is that I am the  
5 chairman of the Board of Directors of the Hampton Area  
6 Chamber of Commerce. Seabrook Station is a very strong  
7 supporter of the Hampton Area Chamber of Commerce and through  
8 it, all the members that we serve.

9                   Seabrook Station is always willing to sponsor  
10 and participate in the many events and festivities that the  
11 Chamber promotes to encourage business and tourism in the  
12 areas that we serve. I have the privilege to serve on  
13 various boards and civic committees with the employees of  
14 Seabrook Station. I have found them to be a very bright and  
15 positive group and an asset to the communities that we live  
16 in.

17                   Our Chamber membership runs the gamut from  
18 small mom-and-pop businesses to very large corporations.  
19 These businesses depend on reliable and reasonably priced  
20 electricity to operate their businesses successfully. The  
21 long-term viability of Seabrook Station is integral to the  
22 success of our members. Seabrook Station is a crucial part  
23 of this area's economy and you could not ask for a better  
24 corporate citizen.

H-02-PRO

1           On behalf of the members of the Hampton Area  
2 Chamber of Commerce, we would encourage you to extend  
3 Seabrook Station's operating license.

4           My second hat this evening is a 17-year  
5 resident and homeowner here in Hampton. A few years ago, I  
6 went to a conference where the keynote speaker was the  
7 cofounder of Greenpeace. In his address, he said the biggest  
8 mistake that Greenpeace made was equating nuclear power with  
9 nuclear weapons.

10           He continued on to say that nuclear power has  
11 proven to be a safe and reliable source for generating  
12 electricity and that the operation of these nuclear power  
13 plants does not contribute to climate change.

14           I hear the clamoring for good jobs, cheap power  
15 and a clean environment. But when it comes time to site one  
16 of these power plants or even a wind turbine, everyone  
17 screams -- Not in my backyard. Seabrook Station is in my  
18 backyard and I have found them to be a very good neighbor. I  
19 would encourage you to extend Seabrook Station's license.

20           ELVA BOWDEN BERRY: Thank you. Can I have  
21 Janet Guen and then Doug Bogen. Is Janet still here? Okay -  
22 - Doug Bogen.

23           DOUG BOGEN: I would like to pass. I'd make  
24 all the points that I think others have made as well tonight.

25           ELVA BOWDEN BERRY: Okay, thank you. Paul  
26 Gunter.

H-02-PRO  
cont

1                   PAUL GUNTER:    Thank you.    My name is Paul  
2    Gunter, G-U-N-T-E-R.    You got the spelling this afternoon as  
3    well.    I'm not going to -- I want to reiterate a couple of  
4    points.    First of all, I'm the Director of the Reactor  
5    Oversight Project for Beyond Nuclear, which is in Washington,  
6    DC area.    I had been a resident of New Hampshire for about  
7    23-years.    But, I wanted to note a couple of things that  
8    we've heard tonight and ask you if you see a pattern?

9                   First of all, it is beyond the scope of this  
10   proceeding in its Environmental Review to address the issue  
11   of there's no management for the nuclear waste that would be  
12   generated in that 20-year cycle -- beginning in 2030/2050.  
13   So, we have an unmanaged issue and it is beyond the scope.

14                   We are also not allowed to address the issue  
15   within the licensing process about security, even though we  
16   know and I think it's been referenced by an expert here today  
17   -- but clearly it was already a public document by one of the  
18   federal labs -- I believe it was Oak Ridge.    No, I'm sorry,  
19   it was Argon National Lab -- that the reactor design for  
20   Seabrook was never designed nor constructed nor evaluated for  
21   fire and explosion from a direct impact from an aircraft.  
22   Matter of public record.    That public record disappeared for  
23   a while after 9/11, but it is now back a part of the NRC  
24   public document room.

25                   Now, again, we have what appears to be an  
26   unmanaged problem that's beyond the scope of being addressed

D-02-LIC

1 within the context of extending this reactor's operation  
2 another 20-years. Also, you've heard comment and concern  
3 with regard to an evacuation plan that's proved to be a very  
4 prickly problem -- a lot of uncertainties. That too is now  
5 beyond the scope of this proceeding. And we can go on.  
6 There are several that present this unmanaged problem for the  
7 NRC and I think that it begins to suggest that we have an  
8 obsolete and antiquated review process that has to be  
9 challenged. I think that you're getting some of that  
10 challenge tonight.

11 As one of the petitioners to change the rule  
12 that facilitates Florida Power and Light submitting an  
13 application 20-years in advance of the expiration date -- I  
14 suggest to you that this is yet another one of these  
15 streamlining of a very problematic issue that does not serve  
16 to benefit public health and safety and security nor does it  
17 offer adequate protection to the environment necessarily.  
18 But it provides and facilitates a conveyor belt for this  
19 licensing process. As a consequence, that has to be  
20 challenged today. We have, as of yesterday, formally  
21 challenged the 10 CFR 54 Part 17(c), which says you can do  
22 that. But, I just want the Agency, the public, the various  
23 experts on both sides to see that there appears to be a  
24 pattern here that facilitates this process, but not  
25 necessarily to the benefit that is mandated by Congress or  
26 presented to us publicly.

D-02-LIC  
cont

1           I'll just close my remarks by pointing out one  
2 other piece here. I'm just going to read into the record one  
3 of the aspects of this 10 CFR 54 Part 17(c) that presents a  
4 problem for those of us who would like a fair airing of a  
5 relicensing process -- filing for license renewal midterm of  
6 the current license finds the licensee at a place in this  
7 system/structure/and component service-life where the  
8 industry experiences few failures that are observed and  
9 generally those that are observed are episodic or anomalous  
10 in nature and thus cannot be readily plotted as a trend for  
11 prediction purposes. The time of an elevated rate of  
12 failures due to design/manufacturing/construction defects has  
13 passed. That's what we call early component failure in what  
14 is traditionally called a bathtub curve. I'm sure Dr. Brown  
15 is quite familiar with the bathtub curve.

16           In that early failure rate, it's largely  
17 irrelevant to aging management in the proposed extended  
18 period of operation. The anticipated end-of-design-life and  
19 aging issues have barely, if at all, begun to emerge. We're  
20 basically at the bottom of this bathtub curve where you have  
21 a high incidence early on as you work the bugs out -- whether  
22 it's a nuclear power plant or an electric toaster or an early  
23 model of a car -- there are these early failures. But now  
24 we're at the bottom of that bathtub curve that has been  
25 described to us as a highly efficient period of operation of  
26 any facility.

D-02-LIC  
cont

1           So, little or no specific information on how a  
2 given plant will age is available to be trended, provide  
3 lessons or otherwise illuminate the path forward. It is  
4 generally observed that for many system structures and  
5 components, such information flow rates increase rapidly in  
6 the fourth quarter and toward the end of the license. This  
7 system/structure/component reliability progression is well  
8 known and often illustrated in the so-called bathtub curve.

9           Additionally, corrosion risk is a function of  
10 time. For example, the Beaver Valley Nuclear Power  
11 containment was discovered to have been rusting from the  
12 outside of an inner liner that was inaccessible for  
13 inspection. So, the evidence of this through-wall corrosion  
14 on the containment component surfaced when a bubble appeared  
15 in the paint on the inside of the containment. So, it was a  
16 outside/in corrosion process that escaped inspection and  
17 maintenance until it was discovered by a bubble in the paint  
18 on the inside.

19           Now, similarly -- I was very involved in the  
20 Seabrook controversy. It was well known to us that the pores  
21 in that concrete were facilitated by such things as cutting  
22 of rebar that -- there were a whole host of issues that  
23 raised concerns about the integrity of both the construction  
24 and the documentation of quality control in that facility --  
25 a whole host of systems and structures and components. And I  
26 submit to you that our concern that this review process now

D-02-LIC  
cont

1 is coming at the bottom of this bathtub where things are  
2 relatively stable, but the Agency is proposing to give its  
3 approval for the latter life -- escaping the operational  
4 experience of the latter life of this plant for the next 20-  
5 years, we believe is to be responsible, both in terms of how  
6 this application is being presented and how it's being  
7 reviewed.

D-02-LIC  
cont

8 We strongly urge you to again -- we are asking  
9 the Agency both formally and in its review process to reject  
10 this application. It's premature. It doesn't provide the  
11 staff with enough information to give a fair assessment of  
12 how this plant can be or if it can be well-managed in this  
13 period of 2030/22050. Thank you.

14 ELVA BOWDEN BERRY: Thank you. Mary Lambert.

15 MARY LAMBERT: I'll be quick and -- well, here  
16 it is. He's a lot taller. I'll be quick. I spent most of  
17 my time on the Severe Accident Mitigation Analysis, which is  
18 within scope. And focused mainly on the fact that the  
19 computational tool -- the computer code -- that they are  
20 using, the MACCS2, is an antiquated code. It is not properly  
21 Q/A'd for licensing. It was done for research and it very  
22 much underestimates impact by having embedded in it the  
23 straight-line Gaussian plume model, which is inappropriate  
24 for this coastal site for largely underestimating clean-up  
25 because it was based upon WASH 1400, which in turn was based  
26 upon cleanup after a weapons event. But there is not a

A-03-SAMA

1 comparability -- as WASH pointed out and also some of the NRC  
2 staff reviewer's of 1150 pointed out -- between a weapons  
3 event with large particles and large mass loadings to a  
4 reactor accident. So, I won't go into it.

5           There was also underestimating by a very large  
6 measure health costs and also underestimating Evacuation Time  
7 Estimates because it's apparent from at least reading the  
8 application they did not quote any ETEs for us to even  
9 question what the assumptions -- if they used KLD -- whether  
10 they considered peak traffic times, holidays, beach traffic,  
11 etc., etc. and also ignoring spent-fuel pool accidents, which  
12 seem to be in scope because of Section 5 of the GEIS.

13           But I would say, for something different, that  
14 my comments on the MACCS2 particularly in regard to clean-up  
15 and the gross underestimation of cost that result from it --  
16 even the author of the code, David Shannon, has written to  
17 the fact that if you are interested in economic costs, don't  
18 use this code. And who should know better than the person  
19 who wrote it. That seems obvious. But, you should bring it  
20 in to your discussion of alternatives because in comparing  
21 alternative energies, you should be having a chart on  
22 economics. The only fair way to do it is not as suggested by  
23 a previous speaker that all you look at is the running costs  
24 because if that were the case, then a lot of people's houses  
25 would be real cheap if somebody else paid their mortgages, if

A-03-SAMA  
cont

1 someone else paid their insurance, et cetera, et cetera.  
2 That seems to be the case with the nuclear industry.

3           So, when you compare costs -- when you have to  
4 do your alternatives comparison -- I ask you to take the  
5 economics -- what the difference in subsidies for each are  
6 and then to tie in the MACCS2 code when you're talking about  
7 liability and insurance because the MACCS2 -- it was MACCS,  
8 actually -- which is the same in every respect to the MACCS2  
9 -- is the underpinning, also the Price Anderson Act. So, the  
10 amount of insurance that is provided through the Price  
11 Anderson Act that the industry is responsible for rests upon  
12 this inadequate code estimation of costs. So, that too  
13 should be factored in.

14           Now, I'm not trying to screw the industry.  
15 What I'm trying to do is get an honest assessment of what the  
16 costs are, so in fact then we can have an honest appraisal  
17 and also then come up with a fair accounting of mitigations  
18 as they are offset by the cost. So, thank you for that  
19 thought -- or listening to that thought.

A-03-SAMA  
cont

**Current Licensing Basis is defined as follows:**

*§ 54.3 Definitions.*

*(a) As used in this part,*

*Current licensing basis (CLB) is the set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and in effect. The CLB includes the NRC regulations contained in 10 CFR parts 2, 19, 20, 21, 26, 30, 40, 50, 51, 52, 54, 55, 70, 72, 73, 100 and appendices thereto; orders; license conditions; exemptions; and technical specifications. It also includes the plant-specific design-basis information defined in 10 CFR 50.2 as documented in the most recent final safety analysis report (FSAR) as required by 10 CFR 50.71 and the licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports.*

**Questions/Requests**

Is it possible that a member of the public can obtain a copy of the CLB to assure it is not being changed by the License renewal process?

How can we obtain a copy of the most recent FSAR, Technical Specifications and "docketed licensing correspondence"?

How can we obtain a copy of the regulations which address inspection for inaccessible pipes as referenced by 10 CFR 50.55?

K-04-LIC

PAUL M BLANCH  
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West Hartford CT 06117  
PMBLANCH@COMCAST.NET

### **Scoping Boundaries**

Page 2.1-6 of the LRA discusses drawings and diagrams used to identify the scope for the mechanical scoping effort (buried pipes). These drawings were not provided as part of the LRA. In contrast, the LRA for Indian Point included most of these mechanical piping drawings.

### **Questions/Requests**

Will the NRC provide these drawings for our experts review?

Our experts also need all drawings of all inaccessible cable runs to determine if the cables are properly addressed in the LRA.

} K-05-SAF

## **Buried pipes and tanks inspection program**

The proposed Buried Piping and Tanks Inspection program is only applicable to “buried steel (including cast iron)” and is only applicable to the external areas of these pipes and tanks.

Seabrook claims it has “no buried steel tanks in scope for license renewal.”

## **Questions/Requests**

The NRC uses the term “inaccessible” for cables and “buried” for pipes. Why the distinction?

Why is the buried pipe inspection program limited only to steel and stainless steel (including cast iron)?

How does the NRC define “buried” vs underground, in enclosed trenches, encased in concrete, etc.?

Are there other tanks within the scope of 10 CFR 54.4 constructed from “non-steel” materials?

Are there other materials used for buried pipes?

Why does the NRC not require inspection of internal corrosion of buried pipes?

Which tanks are covered under this program?

How does the NRC assure the structural and physical integrity of these buried pipes?

K-05-SAF  
cont

### Inaccessible Cables

Page A-17<sup>1</sup> of the Seabrook LRA only requires an LRA for “Accessible” cables and connections.

The Seabrook LRA only identifies cables used for Station Blackout. There are many miles of cables within the scope of 10 CFR 54.4 yet do not appear to be addressed by any aging management program (AMP)

Seabrook excludes medium voltage cables from an AMP unless the cables are energized for more than 25% of the time. In effect, this exempts most vital medium voltage cables.

### Questions/Requests

How can the public be assured that all vital cables within the scope of 10 CFR 54.4 are qualified for long term operation when submerged or exposed to moisture.

How can the NRC justify not inspecting more than an estimated 90% of the vital cables that are most susceptible to submergence and failure?

How can Seabrook justify violating NRC requirements (10 CFR 50 Appendix B)?

How does the NRC rationalize not inspecting more than an estimated 95% of vital instrument cables?

K-05-SAF  
cont

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<sup>1</sup> ELECTRICAL CABLES AND CONNECTIONS NOT SUBJECT TO 10 CFR 50.49 EQ REQUIREMENTS

## INACCESSIBLE MEDIUM VOLTAGE CABLES

Page A-18 discusses INACCESSIBLE MEDIUM VOLTAGE CABLES and states the manholes containing these cables will be inspected for water every two years.

### Questions/Requests

How can the NRC permit these cables to operate in violation of NRC regulations for up to two years?

Even if the "manholes" are drained, what assurance does the public have that other low points are free of water?

} K-05-SAF  
cont

2/14/10  
2/18/10  
2/19/10  
2/20/10  
2/21/10

Bo M. Pham  
Chief, Projects Branch 1  
Division of License Renewal  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission

September 21, 2010

**NRC Docket ID: NRC-2010-0206**

**Re: Seabrook License Renewal Environmental Scoping Comments**

Dear Mr. Pham,

On behalf of Seacoast Anti-Pollution League (SAPL), I would like to submit the following written comments on the Seabrook Station license renewal environmental scoping. These comments are submitted as expansion/clarification on my oral comments given at the afternoon scoping session on August 19<sup>th</sup>.

Among other issues, SAPL is generally concerned about ongoing air/water radioactive emissions from the Seabrook plant. Our initial perusal of available NRC documents concerning these emissions found that some years' reports did not appear to be available, and that in any case these annual summaries do not necessarily provide a complete picture of routine emissions. Regarding tritium emissions in particular, it's our understanding that there no requirements for the plan owner to report these leaks except to the extent that they are detected in the surrounding environment. Likewise, the plant owner is not required to have maintenance plan, though there appears to be a voluntary effort on the part of the industry address this ongoing problem, which is likely to grow in future years as the plant ages. What we have been able to glean from available sources seems to present conflicting figures about the quantity of tritium released earlier in the decade at Seabrook, as well as the extent of the contamination and efforts to address it at the time. Any EIS ought to provide a better picture of the situation with tritium and other common radioactive emissions, as well as the likelihood of future problems of this sort as the plant ages.

E-06-RAD

As we project into the future, which is what this re-licensing process seems to be all about, we recognize your current scoping is meant to identify future environmental impacts of plant operations, but we're more concerned about environmental impacts to the plant itself, namely, from a changing climate. If you expect to take a "business as usual" approach to re-licensing this plant, then it behooves you to adopt a BAU perspective on future climate impacts. The science is in and it should be obvious to most that our climate is changing – what we know is that environmental parameters now will clearly not be the case 50 -100 years from now.

What this means in the current context is that you ought to be planning for significant changes to sea level, groundwater and surface water hydrology, and violent storm/storm surge potential as it will likely affect the plant infrastructure and operations. The "best science" now tells us that without significant and rapid carbon emission reductions, sea level could rise approximately 1 meter by the end of this century. This may seem like a long way off, but considering the ongoing debacle of efforts to implement a long-term storage solution to spent fuel and that your recent actions allow for "temporary" waste storage on-site for up to 60 years after plant closure, it appears that Seabrook's waste storage site as well as the plant itself will likely be underwater before the waste problem is finally resolved.

E-07-CLI

Please take a look at the attached map of Hampton-Seabrook Harbor with a 1 meter sea level rise, produced recently by Clean Air-Cool Planet, a regional climate action organization with offices in Portsmouth, NH.

With magnification, you can see that the plant site is mostly covered by blue, representing sea water under the best estimate scenario at the end of the century. Currently surrounding land, including adjacent saltmarsh and equally important barrier beach are also underwater in this scenario. This eventuality is probably more significant than the overall sea level change projected, in that the plant site will be much more subject to violent storm and coastal flooding damage, even if not underwater itself. Other likely impacts to the region's transportation system, groundwater and surface water regimes, and emergency planning are hard to predict, but clearly can not be assumed to be minimal. Current projections of significant population increases in the Seacoast region will further complicate this picture, and make it all the more important that assurance of plant infrastructure integrity be maintained under this radically different hydro-geological regime.

E-07-CLI  
cont

Therefore, we urge you to address likely future climate and coastal impact issues as you develop your EIS. Without reference to currently projected climate changes, your analysis will be inherently simplistic and deficient, and it will represent a gross dis-service to future generations who will have to live with the decisions you make in this process.

On the subject of "reasonable alternatives energy sources" relative to re-licensing of this plant, which you claim to want input on, we strongly urge you to make a good-faith effort to examine current projections of renewable energy potential in the New England coastal region. This is a huge topic, but we offer one such study produced at the University of Maine last year and summarized in an AP report from December 15<sup>th</sup>. Researchers estimated that "within 50 miles of its coast, Maine has the potential wind energy of 149 gigawatts, roughly the equivalent power of 149 nuclear plants." Further, the state has already set a goal to have 5 gigawatts of wind power (4 times that of the Seabrook plant) developed by 2030, the very same year at which Seabrook is currently slated to be retired. Please also see the attached map from the U.S. Dept. of Energy's National Renewable Energy Laboratory depicting the "outstanding" wind power potential offshore of New England.

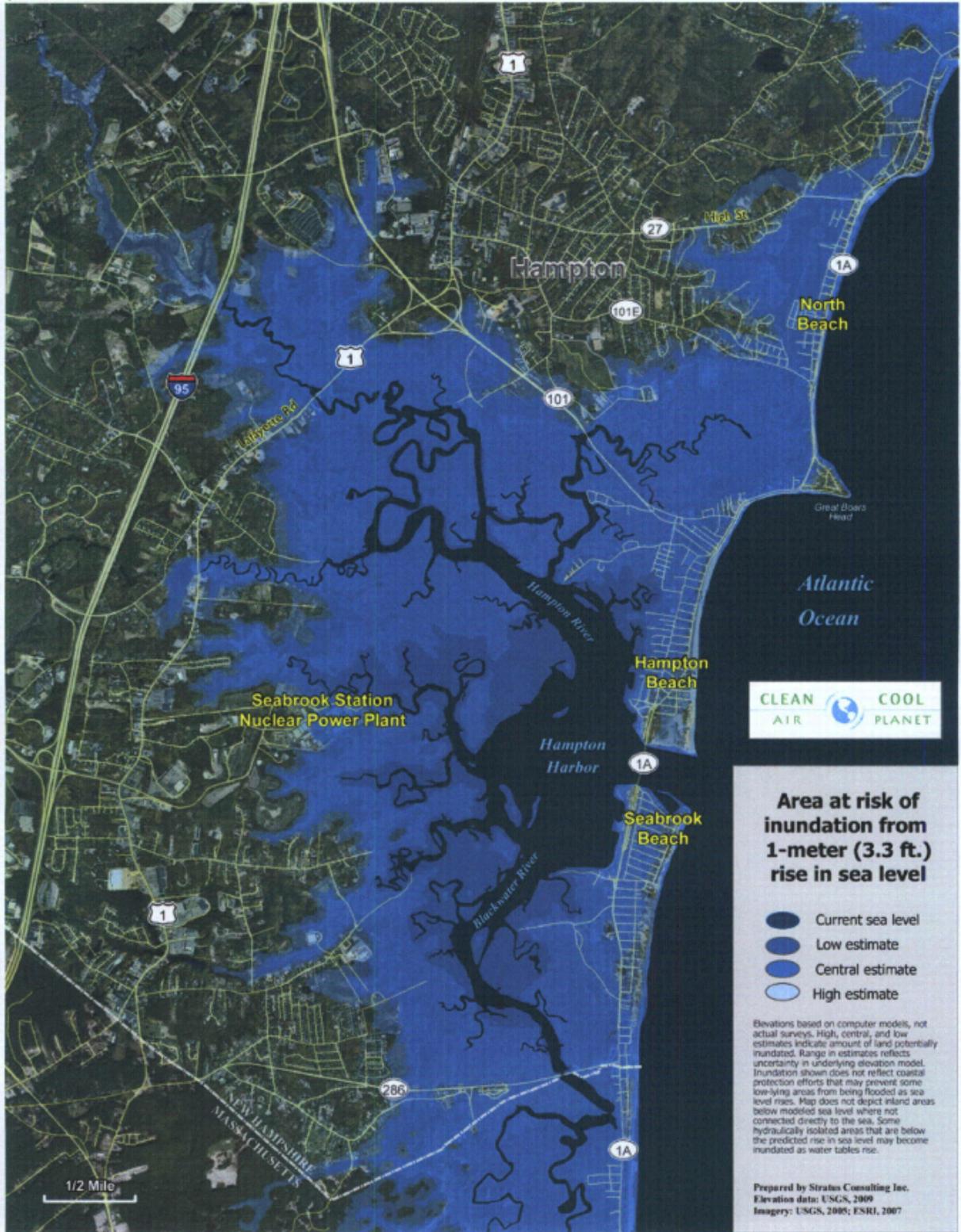
E-08-ALT

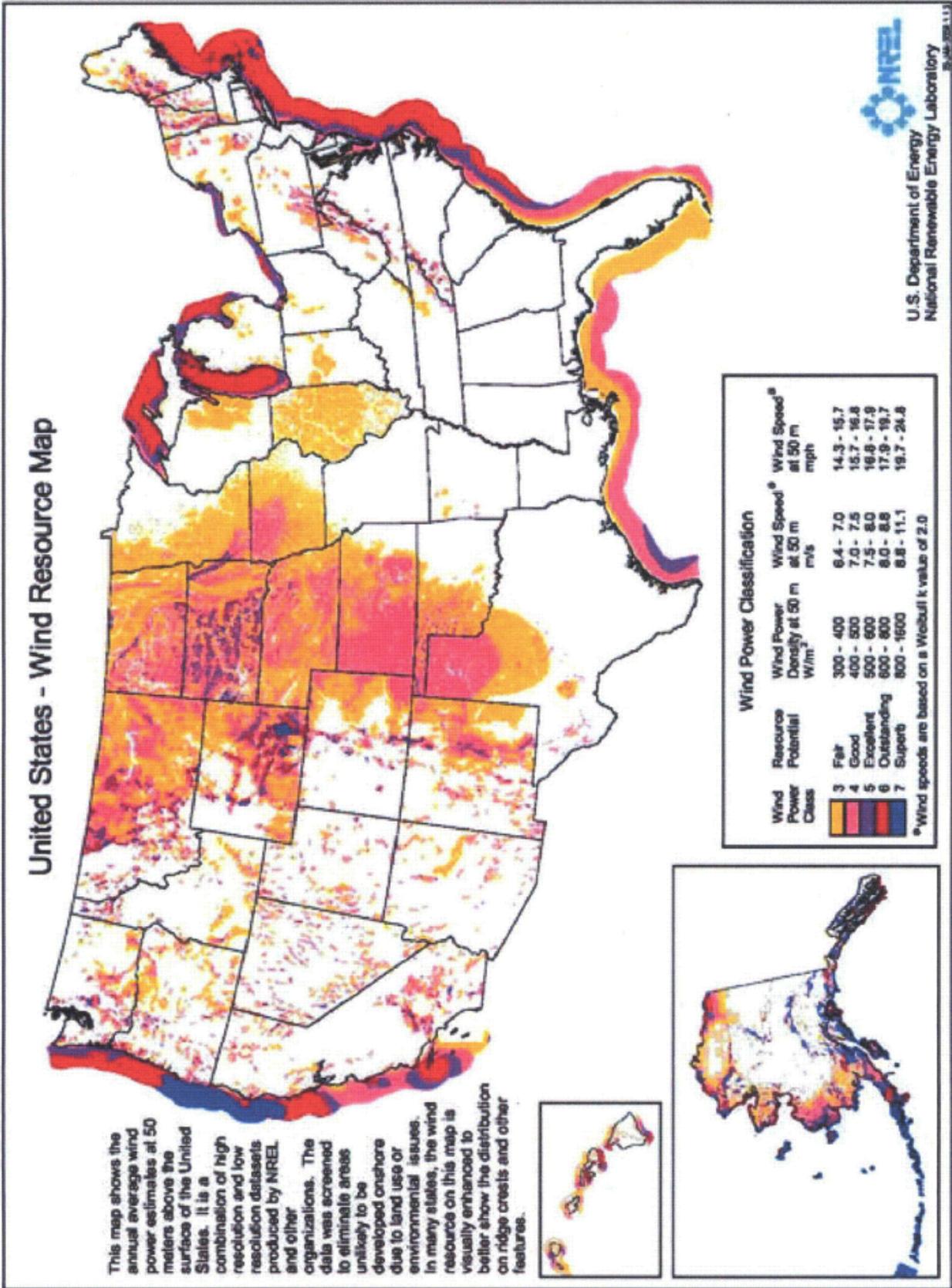
There are of course many other renewable energy technologies in the offing over the next few decades to be potentially developed in the New England coastal region, from wave power and tidal power to photovoltaic systems on existing residential and commercial rooftops. These technologies are inherently cleaner, safer, more secure and resilient, as well as increasingly more cost-effective and job-producing than continued reliance on nuclear power. If you do not make some effort in your "alternatives" analysis to explore these technologies' potential, your EIS will be highly deficient and will not pass the "laugh test" with the region's residents or public officials. Again, future generations will have to live with the decisions, good or bad, that you make in this current process, and you owe them the respect of making an honest and justifiable effort to examine the reasonable alternatives as well as the environmental impacts of maintaining the status quo in the face of a rapidly changing energy production as well as geophysical climate.

Thank you for the opportunity to provide these comments, and please do not hesitate to contact me if you have any questions or comments about this submission.

Respectfully submitted,

Doug Bogen  
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# Amesbury

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September 20, 2010

Mr. Jeremy Susco  
Environmental Project Manager  
Division of License Renewal  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission  
Washington, D.C. 20555  
[jeremy.susco@nrc.gov](mailto:jeremy.susco@nrc.gov)

**Re: Nuclear Regulatory Commission - Environmental Impact & Mitigation Scoping for Relicensing of the Seabrook Nuclear Plant - Docket NRC-2010-0206 Renewal of Operating License No NPF-86, Nextera Energy Seabrook LLC, Docket No. 50-443.**

Dear Mr. Susco,

As you are well aware, MassDOT is preparing to replace the Whittier Bridge which crosses the Merrimack River between Amesbury and Newburyport, MA along Interstate I-95. The Whittier Bridge represents a key bottleneck and vulnerability point between the two communities and the estimated 75,000 vehicle trips per day that move between New Hampshire and Massachusetts. As part of the licensing requirements in 1990 when the Plant was originally permitted, evacuation capabilities for the resident population largely depend upon Route 110 in Amesbury and Salisbury as well as I-95 southbound across the Whittier Bridge. As such, recent advances in the US DOT "intelligent transportation" technologies provide significant opportunities for automated traffic signal synchronization -- using remotely signaled algorithms for contra flow evacuations, and for changes in red/green ratios for other highway connectors. Thus, there are opportunities to now model arterial vehicular networks, and identify and eliminate bottlenecks for evacuation.

Given the significant traffic flows and transportation-related improvements being designed for the arterial backbone of Seabrook's evacuation plan we are requesting that the re-licensing hearing consider new environmental and safety impacts. This is first real opportunity for federal re-evaluation of Evacuation Plans for communities within 10 miles of the Plant since 1990, when Massachusetts Governor Dukakis refused to accept the evacuation plan because it was inadequate and impractical. Beach populations in summer are roughly double what they were in year 1990. As a result, we are requesting that the regional communities participate in a Demonstration Program, sponsored by USDOT, that would:

- Incorporate emergency traffic modeling on a regional basis. Some of these modeling and traffic signalization capabilities have the added benefit of improving regional traffic flow during summer peaking and weekend peaking demand for vehicular travel in the region -- while also improving emergency management;
- Our region has near-saturation of coastal roadways, and at times total saturation during "beach" visitation surges. See the Whittier Bridge traffic projections, increasing from about 77,000 trips per day in coming decades. MassDOT's draft EIR is pending for this project which will provide additional baseline data for modeling;

X-01-SEC

- Incorporate improved near-real-time "plume analysis" for radiation contingencies as considered generically in NUREG-1555, Section V (pp 513 - 547);
- Harness improved, declassified plume modeling techniques of the Defense Threat Reduction Agency, which that agency would make available to the NRC or the Department of Homeland Security in an emergency, for selection of evacuation zones by stages and non-evacuation zones under an Incident Commander;
- Augment the existing 18 (Geiger Counter) sensor and reporting system in northeastern Massachusetts communities, including the Town of Amesbury. Supplement the 18 existing sites with about 32 additional sites, mainly in southern New Hampshire, thereby improving near-real-time radiation monitoring and most likely reducing the zones requiring evacuation, making the evacuation plan more realistic and less likely to expose evacuees in stalled vehicles to radiation without building protection for occupants;
- Improve the reliability of regional radiation monitoring capabilities by identifying low-cost redundant capabilities (e.g. backup batteries for each of the 18 existing sensor sites) and redundant data links so an incident commander could obtain near-real-time radiation monitoring reports even if Seabrook produces no net electrical power and if the regional electric grid is temporarily inoperable;
- Improve emergency coordination between Northern Massachusetts and Southern New Hampshire, both at the state-to-state level and through a Demonstration Program involving the local municipalities in the region of the Seabrook station. Utilize the U.S. Dept of Transportation Modeling Capabilities (Office of Emergency Operations in US DOT) and use the "lessons learned" from Hurricane contra flow operations; and
- Supporting Regional planning whereby utilizing expansion of I-95 from 3 to 4 lanes to the New Hampshire border (8 or 9 lanes of contra flow compared to 5 or 6 now) will induce further growth pressures and traffic congestion. The study should harness the existing technologies for synchronized traffic signalization for all Merrimack River crossings, for Highways 110 and 286, and ramp improvements for I-95 and I-495 at the Highway 110 connectors now under modernization. The same technologies -- using solar panel rechargeable LED signals with remotely re-programmable software -- could assure more effective contra flow evacuation and save lives of law enforcement personnel --who need not be exposed to direct traffic that can be done by synchronized signals in most hot spots along the corridor. Signal synchronization software also reduce vehicle congestion stops, fuel usage, air pollution, and economic losses due to regional transportation congestion.

X-01-SEC  
cont

In closing, we are seeking to lay out a proposal that will meet the federal "requirements" for relicensing and we are providing a foundation for Regional Traffic Congestion & Emergency Evacuation Grant opportunities for our community and the surrounding region. In designating our Region a "Model Evacuation Demonstration Grant Area", we are seeking U.S. DOT support to use state-of-the-art traffic management support, build upon our regional planning capabilities, and fund this regional transportation mitigation and management effort.

I thank you in advance for your consideration of this request and please feel free to contact me at your earliest convenience if you have any questions regarding this request.

Respectfully,



Joseph W. Fahey, Director  
Office of Community and Economic Development

cc: Mayor Thatcher W. Kezer III  
Richard Plasse, Safety Project Manager - Division of License Renewal [richard.plasse@nrc.gov](mailto:richard.plasse@nrc.gov)

**Mendiola, Doris**

**From:** WILLAM HARRIS [williamrharris@yahoo.com]  
**Sent:** Monday, August 23, 2010 5:33 PM  
**To:** Susco, Jeremy  
**Cc:** Plasse, Richard  
**Subject:** Corrected: Scoping Environmental Review for Seabrook Station No 1 Operating License Renewal - Preliminary Comments

----- Forwarded Message -----

**From:** WILLAM HARRIS <williamrharris@yahoo.com>  
**To:** Jeremy Susco NRC <jeremy.susco@nrc.gov>  
**Cc:** Rick Plasse NRC <richard.plasse@nrc.gov>  
**Sent:** Mon, August 23, 2010 4:57:39 PM  
**Subject:** Scoping Environmental Review for Seabrook Station No 1 Operating License Renewal - Preliminary Comments

7/20/2010  
75 FR 42168

Mr. Jeremy Susco  
Environmental Project Manager  
Division of License Renewal  
Office of Nuclear Reactor Regulation \*  
Nuclear Regulatory Commission  
Washington, D.C. 20555

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**Re: Environmental Scoping review - Preliminary Comments - Nextera Energy Seabrook LLC Application for Operating License No. NPF-86 Renewal, Docket No. 50-443 & NRC-2010-0206.**

Dear Mr. Susco:

Thank you for the opportunity to participate in one of NRC's Environmental Scoping Review public meetings held in Hampton, NH on August 19th regarding the Application for an Operating License Extension for the Seabrook No. 1 Unit from year 2030 to year 2050.

Although my background is in international and national security law, in the 1970's I supervised a research program on nuclear energy and nuclear non-proliferation at the RAND Corporation, and served on federal advisory committees to evaluate the relative proliferation resistance of alternative nuclear energy fuel cycles (Energy Research and Development Administration) and the International Nuclear Fuel Cycle Evaluation (INFCE) of the U.S. Department of State & ERDA. Thereafter, under NSC tasking I performed research on the protection and reconstitution of critical national infrastructure systems; and under a Congressional mandated review in the 1990s assessed capabilities of the forerunner DOD agency to the Defense Threat Reduction Agency (DTRA), including that agency's evolving capabilities to model radioactive plume dispersals and evacuation modeling relevant to protection of civilians and the national economy under emergency conditions.

On leave from RAND I performed inter-agency assessments of arms control treaty compliance for a SALT/START verification and compliance committee of the National Security Council, and participated in redrafting treaties and inspection protocols relating to the Treaty on Intermediate Nuclear Forces (INF - 1987), START I (1991), and START-II (1993). Under Congressional mandate, I participated in reviews of DTRA performance of the Nunn-Lugar initiatives to safeguard, purchase, and decommission various international nuclear facilities and materials with unacceptable levels of proliferation or terrorist-related risks.

These are my preliminary comments on scoping the environmental review for re-licensing of the Seabrook Station No. 1 nuclear plant and associated facilities:

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Template = ADM-013*

*E-RFDG = ADM-03  
Cdd = J. SUSCO (J551)*

It is, I believe, in the national interest that the scoping review for this re-licensing application be broader than is the usual scope for a re-licensing application. The Nuclear Regulatory Commission has an opportunity to improve significantly, and at relatively low cost, both the *consequences assessments* and the *emergency evacuation capabilities* for Seabrook Station and the potentially impacted communities within NRC's Region I area.

I note that it is the usual practice for NRC not to consider emergency evacuation capabilities for a licensed nuclear plant when that license is re-considered with an application for license extension. This would be a huge and potentially fateful omission for both the Nuclear Regulatory Commission and the nation, if the NRC were not to include options for emergency evacuation planning and mitigation as a part of the Seabrook Station No. 1 license renewal.

When Seabrook Station No. 1 was licensed the primary risks were of an accidental nature. Evidence from the 9/11 Commission and other official sources indicate that Seabrook is now primarily at risk from intention attack by malevolent adversaries. This energy facility is situated near a major population center and summer-surfing beach traffic; it is accessible from low flying aircraft passing over the Atlantic Ocean; it is now less well protected by Air Defense capabilities following closure of Pease Air Force Base nearby; and it has a containment system designed before the era of terrorist hijackings of wide bodied jets. These are fundamental changes of circumstances and assumptions since this plant was licensed in year 1990.

On the one hand, if NRC decides to exclude consideration of options to improve planning, modeling and procedures for emergency evacuation and re-licenses without these mitigation measures, and this facility then suffers either a terrorist attack or an accident involving significant radiation dispersal, this would be a tragedy not only for the region surrounding Seabrook Station but also for the entire civil electric nuclear industry. And indirectly for both national energy policy and an evolving effort to reduce greenhouse gases (GHGs) as part of a global environmental commitment of the U.S. government.

On the other hand, if NRC seizes a significant opportunity to improve at relatively low cost the planning, modeling, regional sensor network, and evacuation planning for Seabrook-related emergencies, the outcome would be to assure that, if a radiation release of significance occurs, whether by accident or by terrorist initiative, loss of life, harm to public health and safety, and regional economic disruptions are minimized responsibly.

These proactive initiatives would provide essential reassurance, not only for the re-licensing of the Seabrook Station No. 1, but for potential follow-on licenses for additional nuclear energy facilities at a preexisting nuclear energy complex with ready access to cooling ocean waters. It is notable that the Seabrook energy complex was initially designed and planned for at least two reactors. A broad scope for environmental risk assessment and mitigation planning for the Seabrook No. 1 station, could be confidence building, hence create opportunities for follow-on licensed facilities at this same energy complex.

Broad based environmental assessment, should include, within mitigation strategies, initiatives that can: improve emergency planning; monitor in near-real-time radiation dispersals; design and implement phased, zonal, evacuation strategies; and build in, as field data indicate, *in situ* no-evacuation options for those in sub-zones not at risk.

Technologies to incorporate within *consequences assessments* and *evacuation strategies*, should include: plume modeling linked to near-real-time meteorological data; embedded software override capabilities within traffic signalization & traffic synchronization systems for evacuation arteries; *contraflow traffic designs* based on lessons learned from hurricane evacuations across interstate highway systems; backup batteries or renewable signal systems, designed for operability during electric grid outages; encryption capabilities to defeat

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unauthorized "capture" of light signal evacuation algorithms; and regional coordination among transportation and law enforcement entities within the affected region.

Opportunities to improve emergency planning, modeling, regional radiation sensor networks and evacuation management are now present, with capabilities far greater than were available when Seabrook Station was licensed in year 1990:

- In 1990 the main risks related to component and system failures through natural occurring accidents, based on WASH-1400 and other fault-tree modeling;
- Over the past two decades, models for nuclear-related emergencies have developed greater capabilities to project risks of volitional attacks -- such as declassified information indicates to have been under consideration specifically for the Seabrook No. 1 station before 9/11/2001 and since that tragedy.
- In particular, the Defense Threat Reduction Agency has significantly improved its plume & dispersal modeling capabilities for radioactive clouds and related meteorological projections; and
- Upon request of NRC, the Defense Threat Reduction Agency would be capable and willing to model radiation plume dispersals and hazards as a function of (a) seasonal weather patterns, and (b) terrorist optimization to place at risk maximal regional populations when attacking the Seabrook reactor itself, or (c) attacks on spent fuel assemblies stored in on-site swimming pools.
- Of great potential to minimize loss of life, harm to public health and safety, and economic productivity in the region, a non-profit group operating in northern Massachusetts, the C-10 Foundation, now operates a near-real-time network of eighteen (18) regional radiation monitoring stations throughout northern Massachusetts. The Commonwealth of Massachusetts funds these sensor stations, which constitute a significant regional resources in event of radiation release(s).
- Of critical importance for an Incident Commander (whether based in the Department of Homeland Security, or the Nuclear Regulatory Commission, or under more dire circumstances, within STRATCOM) (under military auspices) would be the enlargement of the regional radiation sensor network to include communities in southern New Hampshire, presently not included in the C-10 Foundation radiation sensor network.
- A total of about 50 radiation sensors, a low cost investment for the re-licensing and potential expansion of nuclear reactors at the Seabrook facility, would provide an Incident Commander the capability to stage evacuations (and *in situ* population holds) by zones assigned, with DTRA near-real time plume analysis, by levels of radiation intensity, and traffic evacuation capability modeling.
- A primary goal should be to reduce expected loss of life and harm to public health and safety, and not the total clearance of human populations from the entire region within a specified period of time. Under many circumstances, total clearance of region populations would be counterproductive to protection of life, public health and safety, and the regional economy.
- Without a regional radiation sensor network available to an Incident Commander, excessive evacuations would be likely to expose potential evacuees in stalled motor vehicles with less protection than within their homes or businesses, needlessly aggravating loss of life, cancer incidents, etc.
- Without a regional sensor network, and without any evacuation orders, the communities around Three Mile Island (1979) self-evacuated without any cohesive planning. This resulted in massive transport congestion. Had there been significant radioactive dispersal, which was not present, loss of life would have been needlessly aggravated.
- In contrast, the failure of prompt notification and coordinated evacuations in the region surrounding Chernobyl (in the Ukraine, 1986) resulted in epidemiological estimates of radiation-related losses of approximately 92,000 lives -- most resulting from failures to design orderly, zonal evacuations.
- The 18 existing C-10 Foundation sensor sites in northeastern Massachusetts presently lack long-life backup batteries, and redundant telecommunications channels, so a (federal) Incident Commander could be reliably informed despite the potential (likely) loss of regional power across the regional electric grid. The cost of these network improvements (backup batteries, dual telecomm channels) is so minimal, relative to potential for life saving and potential to improve public confidence supporting additional

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plant licensing, that this mitigation measure should be considered essential to any emergency plan and and to mitigation measures to enhance emergency evacuation capabilities.

- The extension of this regional sensor network to Southern New Hampshire might be facilitated by a grant or grants from the Department of Homeland Security to regional communities or a non-profit Foundation operating within the State of New Hampshire. It is essential that southern New Hampshire communities be included in near-real-time radiation monitoring and reporting to assure a cost-effective emergency evacuation (and non-evacuation) system is developed as part of the re-licensing process for Seabrook Station No. 1.
- Since the licensing of the Seabrook plant in year 1990, NOAA has developed weather modeling capabilities that could be utilized for regional emergency/consequences assessment/evacuation planning and mitigation plans.
- It is my understanding that the C-10 Foundation commissioned a study of seasonal weather patterns in the region of Seabrook Station by a trained meteorologist. These localized studies should be combined with NOAA databases to develop threat scenarios that account for potential terrorist initiatives designed to maximize population at risk, as with timing an incident while winds flow from north to south over densely populated land areas.
- The Emergency Transportation Operations staff within the U.S. Department of Transportation has developed modeling capabilities to optimize *contraflow* evacuations; these models have utilized empirical data from Florida, Louisiana, Texas and other hurricane episodes, and might assist NRC in developing a 21st century emergency evacuation and management model, thence a regional emergency plan for Seabrook Station.
- The National Research Council (Transportation) has a variety of findings for emergency evacuation management on its websites. These include design into construction contracts for Interstate highways and other arterial evacuation routes of positive incentives to clear construction equipment from all operable lanes of highways in advance of *contraflow* traffic implementation. There need to be financial bonuses for compliance, and significant contract penalties for noncompliance, so *contraflow traffic* is not impeded by leftover construction equipment as has happened during all too many recent hurricanes.
- The "Intelligent Transportation" program of the U.S. Department of Transportation has developed traffic signalization / signalization synchronization that can automate traffic signals for major evacuation arteries, and on-ramps/off-ramps with (reversed) *contraflow* evacuations. These capabilities can be designed to accept, with encryption protection, wireless signals to implement evacuation software algorithms.

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Even if some of the "best practices" emergency evacuation capabilities are beyond the responsibility of the NRC license applicant, or of the NRC itself, NRC's environmental scope for mitigation planning should be broad-based in identifying cost-effective mitigation measures, some fundable by the U.S. Department of Transportation, or by the Department of Homeland Security, or by state governments.

A separate component of mitigation planning, within the scope of environmental review, should include the Applicant's participation, whether voluntary or mandatory, in critical infrastructure control system monitoring programs, such as the recently announced "PERFECT CITIZEN" research program of the National Security Agency. ["Sensors deployed in computer networks for critical infrastructure" will be utilized in cooperative research with energy utility companies. See "U.S. Plans Cyber Shield for Utilities, Companies," *Wall Street Journal*, July 8, 2010.] Older NRC-licensed nuclear plants are likely to have "legacy" information technology systems connected to the internet; loss of service (LOS) attacks can result in harm to public safety if electric power disruptions are controlled by a hostile adversary and not by utility management. Mitigation measures to monitor, prevent, and contain cyber attacks on nuclear-electric systems subject to NRC licensure should be an essential component of any re-licensing review and mitigation for the Seabrook facilities.

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Finally, the environmental review should consider the consequences of continued availability of Seabrook Station No. 1, its degradation as a base-load generator, or its total loss if its license is not to be renewed. The life cycle costs per kilowatt hour of electric power for rate payers of southern New Hampshire and rate payers of northern Massachusetts should be projected. As of the present writing, it appears that the cost per kWh of electric production at Seabrook Station No. 1 is substantially lower than the recently projected costs of Cape Wind electric power (including downtime for disrupted production) derived from projected offshore wind turbine systems.

For Massachusetts electric rate payers, wind energy is either a projected financial burden for electric ratepayers, or perhaps an acceptable experimental beginning (at higher per unit costs, for now) that is ameliorated by the concurrent delivery of lower cost electric power from the Seabrook Station No. 1 facility. Without concurrent availability of the Seabrook Station No. 1 for baseline load generation, some of the renewable energy alternatives might be assessed as too expensive to add to the grid costs passed on to ratepayers. And disruption costs, when wind and solar systems produce little or no net electric power, could cause system-wide outages if the baseload power of Seabrook is to become unavailable. Seabrook's role in reducing average electric costs and reducing incidents of ISO New England system outages should be included within any environmental assessment.

T-07-ALT

Sincerely,

William R. Harris

Newburyport, MA 01950  
williamharris@yahoo.com

**Mendiola, Doris**

**From:** WILLAM HARRIS [willamrharris@yahoo.com]  
**Sent:** Wednesday, August 25, 2010 11:27 PM  
**To:** Susco, Jeremy; Plasse, Richard  
**Subject:** Additional Reference Document for Seabrook Relicensing Environmental Review - Threat Assessment of EMP for Critical Infrastructure  
**Attachments:** A2473-EMP\_Commission-7MB.pdf

For Messrs Susco and Plasse, Nuclear Regulatory Commission:

As a reference document that could be relevant to the scoping of environmental review for relicensing of the Seabrook Station No. 1 facility, please consider the attached full report of the Congressionally-mandated Commission to Assess the Threat of High Altitude Electromagnetic Pulse (EMP), completed in April 2008.

The entire report has a relevancy to critical infrastructure protection requirements. Chapter 2 provides an overview of the electric power industry, its infrastructure, particular system components, and overall vulnerability to EMP attack. If you have not considered this chapter before, please do so in the future.

Of particular interest, the Commission observed that protection of energy system components from prompt (E1), intermediate (E2) and longer phased (E3) energy pulse phenomena would be most cost-effective when combined with parallel efforts to improve cyber security -- relevant to the current initiatives of the National Security Agency to sponsor joint research programs with the electric power industry.

This Commission Report (the Graham Commission) notes the long-lead time to acquire transmission, transformer, and other specialized equipment under market conditions in which China and India and other emerging states have a substantial backlog of equipment orders. The risks of long-term electric power outages and shortages, because of back-orders for essential replacement equipment, are substantial.

One overall consequence of the risks of EMP attack (low probability/high consequence) and cyber attack on electric system infrastructure (higher probability/high consequence), with a National Electric Reliability Council (NERC) excess capacity that is closer to 10 percent compared to historic reserve capacity of 20 percent is the following:

Taking into account a reduced reserve of electric power generation capability in future years for the nation and for the Northeast (US-Canada) region within which Seabrook operates, the relicensing of existing baseline electric generation capabilities, if sufficiently safe, contributes positively to a capacity buffer that could significantly protect the public health and safety and economy of the United States and of the North American continent, and of specific regions of the nation.

ISO New England currently projects (May 2010) net installed capacity (in MWe) of 32,127 for the year 2013-2014, with peak load capacity of 28,570 (MWe) in that same year. Projected peak load (demand) as a percentage of projected net regional capacity (which includes hydroelectric imports from Canada) is about 88.9%. Hence, there is a reserve of about 11 percent of net projected capacity as of the year 2013-2014.

Seabrook Station, with about 1,248 MWe of online capacity produces about 4.4 percent of the New England ISO demand projected for year 2013-2014. This is about one fourth of the nuclear generation in this region. The total loss of Seabrook Station No. 1 would significantly reduce the reserve margin of installed (and under contract hydroelectric import) capacity for the six state New England ISO region.

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Consequently, Seabrook Station No. 1 is an important component of regional electric network supply and reliability. And if NRC demonstrates a commitment to reduce environmental and emergency-related risks deriving from renewed licensing of the Seabrook Station, this ocean-connected site has the capacity for additional licensable nuclear-electric facilities. These additional licensable facilities could contribute to relatively low cost baseline electric generation, and needed additions to regional electric reserve capacity. Extension of existing nuclear baseline generation, plus additional licensable nuclear-electric plants will complement additions of renewable generating capacity that provide more variable, intermittent generating capacity for the New England region.

With long lead times to replace or repair essential equipment for generation, transmission, or network system control (SCADA) of the electric power industry, the build-up of reserves of baseline electric power is essential for this region and the nation. Increased marginal capabilities for baseline nuclear-electric power can achieve a more robust and enduring electric network for the nation. Such increases in baseline generating capacity, combined with augmented transmission capabilities, can better endure emergencies affecting power systems, control (SCADA) systems, and related telecommunications systems that depend upon reliable electric power for their functionality.

As a consequence, the Nuclear Regulatory Commission should utilize every licensing and relicensing review that comes before it as a means of promoting not only the safety of licensable systems but also a commitment to increase the reserve electric power generating capacity of the nation and the North American continent for reliable baseline electric generation.

By using the relicensing review for Seabrook Station to update and improve *consequences assessments* and *emergency mitigation programs*, the Commission can pave the way for additional future plant licensing opportunities at the Seabrook facility, and at other nuclear facilities. All licensed nuclear facilities under NRC jurisdiction could also benefit from more cost-effective planning, near-real-time regional radiation monitoring, and emergency operational and phased evacuation capabilities.

It is possible that a Generic Review of Consequences Assessments, Regional Monitoring Capabilities for every licensable facility, and Emergency Contingency Capabilities should be established by the Commission, so that findings that are relevant for one facility, e.g. Seabrook Station No. 1, can lead to "best practices" for all of the nation's licensed and licensable nuclear-electric facilities.

Sincerely,

William R. Harris  
Newburyport, MA 01950  
email: williamrharris@yahoo.com

T-09-PRO



The Senate of the State of New Hampshire

107 North Main Street, Room 302, Concord, N.H. 03301-4951

MAGGIE WOOD HASSAN  
Senate Majority Leader  
District 23

August 19, 2010

7/20/2010

75 FR 49168

Office 271-2111

TTY/TDD  
1-800-735-2964

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Nuclear Regulatory Commission:

Thank you for inviting me to participate in today's two public meetings concerning the relicensing of the Seabrook Nuclear Power Plant. I plan to attend the evening meeting, but am unable to be present for the one this afternoon. Hence this letter.

Many of my constituents oppose the use of nuclear power for any reason, some are concerned that if it is used we need to resolve issues surrounding the disposal of the waste it produces, still others support it enthusiastically as a source of clean, reasonably priced energy. I have tried to bring all of these perspectives to NextEra Energy's (the power plant's owner) attention, asking questions at various times about possible environmental and health hazards, security concerns, safety, and cost. I have been impressed by, and appreciative of, the company's open and cordial responses to these inquiries, which have included an extensive tour of the facility and multiple meetings and exchanges of information.

My constituents have different opinions as to whether the NRC should renew the plant's license. I hope and expect that Seabrook Power Plant will demonstrate the same open and responsive attitude during this process that they have exhibited in their dealings with other elected officials and with me. It's the best way to ensure that all voices on this issue are heard.

With every good wish,

*Maggie Hassan* (cc)

Maggie Hassan  
State Senator, District 23  
603-271-2111

District 23 comprises: East Kingston, Exeter, Kensington, Kingston, Newfields, Newmarket, Newton, Seabrook, South Hampton, Stratham

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FRIDS = ADM-03  
Call = J. SOSCO (3581)

7/20/2010  
75 FR 42168 (5)

# PUBLIC SUBMISSION

**As of:** September 20, 2010  
**Received:** September 18, 2010  
**Status:** Pending\_Post  
**Tracking No.** 80b529eb  
**Comments Due:** September 21, 2010  
**Submission Type:** Web

**Docket:** NRC-2010-0206  
Notice of Receipt and Availability of Application for Renewal of Facility Operating License

**Comment On:** NRC-2010-0206-0002  
Environmental Impact Statements; Availability, etc.: Nextera Energy Seabrook; Seabrook Station (Unit 1)

**Document:** NRC-2010-0206-DRAFT-0005  
Comment on FR Doc # 2010-17652

## Submitter Information

**Name:** Joyce Kemp  
**Address:**  
11 Coach Rd  
Exeter, NH, 03833  
**Organization:** self

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## General Comment

I am opposed to extending the license for Seabrook for 20 more years, especially since there are 20 years still remaining on the current license and many questions remain unaddressed. In particular:

- This process highly premature, given no one can reasonably predict what condition plant infrastructure will be in 20-40 years in advance, let alone future energy policy planning.
- Ongoing problems like emergency generator malfunctions and potential future ones like inaccessible submerged electrical cables need to be addressed before re-licensing the plant.
- Neighboring residents should not be exposed to another 20 years or routine radioactive emissions, let alone the risk of catastrophic accident, when cheaper, safer and sustainable power sources will likely be available (and necessary!) in coming decades.
- We should not be committing to generate another 20 years of high-level radioactive waste, when there is NO viable plan for long-term storage of existing wastes, and the plant's waste dump (as well as the reactor!) is dangerously close to a increasingly rising sea level and violent storm potential.

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I believe that over the next 20 years, we will have other more sustainable and safer alternatives available to us for energy. These must be considered. The current plant must face deteriorating structures with plans to test and replace

WHETHER THE LICENSE IS EXTENDED OR NOT!

Please do not extend the license now, and continue to ensure that the owners take responsibility for addressing the above concerns.

Thank you  
Joyce Kemp

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Add = J. Susco (JSS1)



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September 20<sup>th</sup>, 2010

**Mr. Jeremy Susco**  
**Environmental Project Manager**  
**Division of License Renewal**  
**Office of Nuclear Reactor Regulation**  
**Nuclear Regulatory Commission**  
**Washington, D.C. 20555**

*(Submitted via: [www.regulations.gov](http://www.regulations.gov))*  
*(Emailed to: [jeremy.susco@nrc.gov](mailto:jeremy.susco@nrc.gov))*  
*(Emailed to: [richard.plasse@nrc.gov](mailto:richard.plasse@nrc.gov))*

Re: **Environmental Scoping Review - Preliminary Comments - Nextera Energy Seabrook LLC**  
**Application for Operating License No. NPF-86 Renewal**  
**Docket No. 50-445 & NRC-2010-0206**

Dear Mr. Susco:

Thank you for the opportunity to comment on the Nuclear Regulatory Commission (NRC) Environmental Scoping Review regarding the Application for an Operating License Extension for the Seabrook No. 1 Unit from year 2030 to year 2050.

It is our understanding that the scope of this initial review is to determine what environmental and safety issues will be the subject of a *supplement* to your boilerplate "Generic Environmental Impact Statement" (GEIS) which is typical for licenses and renewals on all Nuclear Power Plants. It is our understanding that these GEIS and supplemental environmental and safety issues will be analyzed in greater depth over the next year and a half, prior to granting a License Renewal for Nextera Energy Seabrook LLC for their operation of the Seabrook No. 1 Unit from year 2030 to year 2050.

While we understand that safety considerations were taken into account for the Seabrook No. 1 Unit during the initial licensing process in 1999, and that the plant has been operational without major incident for the first twenty (20) years, we believe that substantial public benefits should be associated with a potentially premature "renewal" to the current license which will not presently expire for another twenty (20) years. If the NRC is expected to extend the license commitment until 2050, several decades into the future, mitigation for this private benefit (and public risk) should be provided with some additional consideration for risk assessment and emergency evacuation capabilities within the potentially impacted communities. Newburyport, MA falls within ten (10) miles of the Seabrook Nuclear Power Plant.

While it may not be usual practice for the NRC to consider emergency evacuation planning and mitigation for a license renewal extension, this would be a mistake for both the Nuclear Regulatory Commission and the nation.

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**Environmental Scoping Review - Preliminary Comments - Nextera Energy Seabrook LLC**  
**September 20<sup>th</sup>, 2010**  
**Page 2 of 2**

It is in both the national and regional interest that the scope of review for this re-licensing application be broader than is the usual scope for a re-licensing application. The Nuclear Regulatory Commission has an opportunity to improve the emergency evacuation capabilities for Seabrook Station and the potentially impacted communities, including Newburyport, MA.

The following relevant comments were previously submitted by Newburyport resident William Harris:

"When Seabrook Station No. 1 was licensed the primary risks were of an accidental nature. Evidence from the 9/11 Commission and other official sources indicate that Seabrook is now primarily at risk from intentional attack by malevolent adversaries. This energy facility is situated near a major population center and summer-surfing beach traffic; it is accessible from low flying aircraft passing over the Atlantic Ocean; it is now less well protected by Air Defense capabilities following closure of Pease Air Force Base nearby; and it has a containment system designed before the era of terrorist hijackings of wide bodied jets. These are fundamental changes of circumstances and assumptions since this plant was licensed in year 1990."

The NRC should utilize this opportunity to improve (at relatively low cost) the planning, modeling, regional sensor network, and evacuation planning for Seabrook-related emergencies. In return for granting such a large extension to the current license term, Nextera Energy Seabrook LLC should be required to assure that, if a radiation release occurs, (whether by accident or by terrorist attack) loss of life, harm to public health and safety are minimized.

In order to provide for coordinated evacuations in the event of a Seabrook-related emergency, we request that the NRC require the following mitigation, within the Seabrook region, as essential elements of review under the GEIS supplement:

1. Design and installation of plume modeling systems linked to near-real-time meteorological data;
2. Design and installation of software overrides within existing traffic signalization & traffic synchronization systems for key evacuation arteries (such signal-synchronization software could provide the added ongoing benefit of reducing vehicle congestion stops, fuel usage, air pollution, and economic losses due to regional transportation congestion);
3. Modeling and preparations (installation of signage, signalization, control systems, etc.) for "contraflow" traffic designs based on lessons learned from hurricane evacuations across interstate highway systems;
4. Installation of backup batteries or renewable signal systems, designed for operability during electric grid outages; and
5. Funding for regional emergency preparedness coordination among municipal, transportation, law enforcement and emergency response entities.

Again, thank you for the opportunity to comment on this application for license extension. We look forward to working with the applicant (Nextera Energy Seabrook LLC) and the NRC to ensure that continued operation of the Seabrook Nuclear Power Plant will be beneficial and responsible to the region as well as Nextera. Please do not hesitate to contact me at (978) 465-4400 x225 if you have any questions regarding our comments.

Very truly yours,



Andrew R. Port, AICP  
**DIRECTOR OF PLANNING & DEVELOPMENT**

CC: Donna D. Holaday, Mayor  
William R. Harris, Newburyport, MA 01950 (williamharris@yahoo.com) (wmr.harris@gmail.com)

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cont

7/20/2010  
75 FR 42168  
(4)

# PUBLIC SUBMISSION

As of: September 01, 2010  
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**Docket:** NRC-2010-0206  
Notice of Receipt and Availability of Application for Renewal of Facility Operating License

**Comment On:** NRC-2010-0206-0002  
Environmental Impact Statements; Availability, etc.: Nextera Energy Seabrook; Seabrook Station (Unit 1)

**Document:** NRC-2010-0206-DRAFT-0001  
Comment on FR Doc # 2010-17652

## Submitter Information

**Name:** Geordie Vining  
**Address:**  
Newburyport, MA, 01950

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2010 SEP - 1 AM 8:28  
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USNRC

## General Comment

I do not believe that the NRC should be making a decision now about relicensing the Seabrook plant for the years 2030-2050. The existing license will carry the plant through the next two decades, and nobody at the NRC or anywhere else has any clear idea about the technology, waste disposal, political and social events, and threat assessment 20 years from now. I understand that the existing regulations allow the plant to apply for an extension now, but that is no reason for one to be granted. A review now is heavily slanted towards locking in the plant when we know little about its structural condition in 20 years, the feasibility of disposing of the large quantity of radioactive waste in the temporary pools, the possibility of terrorist attacks on other nuclear facilities in the U.S., climate change, population growth and evacuation plans, etc. We who live in the area nearby live with the plant today and the potential risks, recognizing the energy created and economic impacts, and perhaps those elements will balance out the risks in the future, but I firmly believe that it is irresponsible to approve this now. The NRC could use its discretion to either reject the application until it is more ripe, or review it and decide to postpone the decision for 10-15 years so that we can have a reasonable discussion. So far, we have received little or no indication that the NRC has any desire to do anything but grant extensions along with some potential modifications, and avoid the larger questions involved. I am concerned that the NRC been fully "captured" by the industry it nominally regulates vs. acting in a more independent and even-handed manner. Do we extend a middle-aged person's driver's license so that they are legal to drive another 40 years when it is possible their health and eyesight will be impaired when they are in their 80's or 90's? No. Please do not dismiss these rational concerns, and demonstrate that you are acting fully in the public's interest.

Y-01-LIC

SWSI Review Complete  
Template = ADM-013

E-RIDS = ADM-03  
Call = J. SUSCO (JSS1)