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NUCLEAR REGULATORY COMMISSION

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1	UNITED STATES OF AMERICA
2	NUCLEAR REGULATORY COMMISSION
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4	PUBLIC MEETING TO DISCUSS
5	PRELIMINARY SITE-SPECIFIC RESULTS OF THE
6	LICENSE RENEWAL ENVIRONMENTAL REVIEW FOR
7	SEABROOK STATION
8	+ + + + +
9	Upper Great Hall
10	One Liberty Lane
11	One Liberty Lane East
12	Hampton, New Hampshire 03842
13	+ + + + +
14	Thursday, September 15, 2011
15	7:00 p.m.
16	FACILITATOR:
17	BRIAN ANDERSON
18	NRC STAFF PRESENTING:
19	MICHAEL WENTZEL, Environmental Project Manager, Office
20	of Nuclear Reactor Regulation
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23	
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1	<u>P-R-O-C-E-E-D-I-N-G-S</u>
2	(7:00 p.m.)
3	BRIAN ANDERSON: Good evening ladies and
4	gentlemen. This is the Nuclear Regulatory Commission
5	meeting to discuss license renewal for the Seabrook
6	Nuclear Power Station.
7	My name is Brian Anderson. I will be the
8	facilitator for tonight's meeting.
9	The purpose of this meeting is to discuss
10	the Draft Supplemental Environmental Impact Statement
11	related to the license renewal review for Seabrook
12	Nuclear Power Station.
13	The NRC staff will make a presentation.
14	We'll have a brief question and answer session, but
15	the main purpose of today's meeting is to hear your
16	comments on the NRC's review. The NRC's review of the
17	Seabrook license renewal application is not yet
18	complete. The comments that are provided today and
19	after this meeting will be considered by the NRC staff
20	before it issues its Final Supplemental Environmental
21	Impact Statement sometime next year.
22	I'd like to start by introducing some of
23	the NRC staff members that are here tonight. I'd like
24	to introduce Mr. Mike Wentzel. Mike is the
25	Environmental Project Manager for the Seabrook license
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renewal review. I'd also like to introduce Mr. Rick Plasse -- Rick is the Safety Project Manager for the Seabrook license renewal review. Dave Wrona is the Chief of the License Renewal Projects Branch Number 2. Mike, Rick and Dave all work in the NRC headquarters facility near Washington, DC.

I'd also like to introduce Diane Screnci -7 8 - Diane is in the back. She's a Public Affairs 9 officer with the Region 1 office the NRC maintains I'd also like to introduce Mr. 10 near Philadelphia. Rich Conte. Rich is the Chief of Engineering Branch 11 12 Number 1, also located at the NRC's Region 1 office near Philadelphia. I'd also like to introduce Mr. 13 Bill Raymond. Bill is the Senior Resident Inspector 14 here at the Seabrook Station. 15

For those that don't know, the Nuclear 16 Regulatory Commission has at least two Resident 17 18 Inspectors assigned to each nuclear power plant in the 19 United States. NRC Resident Inspectors live in the 20 local communities and they perform daily safety reactor inspections at every nuclear power plant in 21 22 this country.

I'd also like to introduce a member of Senator Ayotte's office that's here tonight -- Mike Scala -- in the back. I'd like to thank Mike for

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taking the time to join us tonight.

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2 I'd like to cover a few housekeeping items 3 before we get into the formal part of the presentation 4 and meeting tonight. I think everybody probably noticed that there are tables of materials in the 5 lobby as you came into the auditorium. Please feel 6 7 free to help yourself with paper copies of any NRC 8 literature that's there -- for use during this meeting 9 and even afterwards. I'd also ask -- to help minimize distractions during the meeting -- if you could please 10 silence your cell phones. Either turn them off or put 11 12 them in vibrate mode -- whatever you prefer.

The agenda for tonight's meeting's going 13 to start with a formal presentation by the NRC staff. 14We'll follow that with a short question-and-answer 15 We'll then move to hearing your comments. 16 session. 17 Because the main purpose of this meeting is to hear public comments related to the Seabrook license 18 19 renewal and Environmental Review, we've allotted 25minutes for the NRC presentation and 25-minutes for 20 the question-and-answer session. We wanted to leave 21 the majority of the time for hearing your comments. 22 So that's what the remaining two-hours of the meeting 23 are set aside for. 24

During the question-and-answer session --

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I'll say this again after the presentation's done --1 2 the NRC staff is prepared to talk about the review 3 process and the preliminary results of the 4 Environmental Review that's taken place for the 5 Seabrook license renewal application. Since only a limited number of NRC technical staff are here, NRC 6 staff might not be able to answer all questions that 7 8 They'll certainly be prepared to answer you have. 9 questions related to this review process and to the preliminary results of the Environmental Review, but 10 other questions might need to be taken as comments. 11 12 We might need to follow-up with you later outside of this meeting. 13

there NRC 14 And because are verv few 15 technical experts that are here at the meeting tonight, the NRC staff does not intend to respond to 16 17 comments that you provide during the last two-hours of the meeting. The NRC will provide written responses 18 all comments it receives -- not 19 just at this to meeting, but for the remainder of the comment period 20 21 that follows this meeting.

Finally, before we get started, I'd like to just cover a few ground rules for tonight's meeting. There are a number of people that have signed-up to provide comments. So, based on the

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number of people that have signed-up -- I'd like to 1 2 ask that everybody please be concise and please limit 3 your time to five-minutes when you provide comments. 4 I wanted to set the stage there so that everybody has 5 to provide an opportunity comments. And that everybody has an equal amount of time. In the event 6 7 that you are not able to provide all the comments that you want during the five-minute period, if there's 8 left over at the end of the meeting we'll 9 time 10 certainly allow you to provide additional comments.

But providing comments at this meeting here today is not the only way to provide comments. You don't necessarily have to say anything at this meeting for your comments to be registered by the NRC. There are other ways to do that and NRC staff will discuss that during their presentation.

17 There's a court reporter in the back of We are transcribing this meeting so we have 18 the room. 19 a clear record of what's said here. So, to help with 20 that process, I'd like to ask that anybody that likes to speak, please only speak into a microphone. During 21 the question-and-answer session and during the comment 22 period, I'll provide a microphone for you to speak. 23 For those same reasons, I'd also like to ask that we 24 25 only have one person speak at a time. It's very

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1	important that we have a clear transcript of what is
2	said here tonight, so everybody that speaks
3	speaking into a microphone and only having one person
4	talk at a time is a very good way to make sure that
5	we've got a clear record of what happens tonight.
6	Lastly, I'll say that it's possible that
7	you're going to hear opinions that might be different
8	from your own tonight. I'd like to ask that we treat
9	each other with respect and courtesy during this
10	meeting.
11	Do those ground rules sound like something
12	that everybody can live with?
13	PAUL GUNTER: Absolutely.
14	BRIAN ANDERSON: Good. Thank you. With
15	that, I'll turn it over to the NRC staff for a
16	presentation. Mike
17	THOMAS SAPORITO [via telephone]: Just a
18	quick question are you going to notify us with
19	about one-minute left at the end of five-minutes?
20	BRIAN ANDERSON: The question was
21	During the five-minute comment period, will I notify
22	you as your time is winding down? I certainly can do
23	that. What I have a habit of doing is standing in the
24	back while comments are being made and as time
25	approaches five-minutes, I'll slowly start to move
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forward. So, the closer I get to the podium, the 1 2 closer you are to your five-minutes and probably over. 3 So, I'm not trying to infringe on your space, but 4 that's a way of keeping time. 5 THOMAS SAPORITO: Thank you. Mike --BRIAN ANDERSON: A-hmm. 6 MICHAEL WENTZEL: Great. Good evening. 7 8 As Brian said earlier, my name's Mike Wentzel. I am 9 the Project Manager at the NRC that's responsible for 10 coordinating the Environmental Review activities for the Seabrook Station license renewal application. 11 I 12 gave this warning earlier today and I'd like to give it as well -- I don't have a good --13 THOMAS SAPORITO: [indiscernible] 14 15 MICHAEL WENTZEL: We do have somebody on the phone that's participating in the meeting this 16 17 evening. BRIAN ANDERSON: Mike -- hold on for just 18 19 second. Let me see if I can position this phone a little closer to the speaker. 20 For those on the phone, I moved the phone 21 probably as close as I can to one of the speakers here 22 in the room. Does that sound like it's any better? 23 24 THOMAS SAPORITO: I can hear you loud and 25 NEAL R. GROSS COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. (202) 234-4433 WASHINGTON, D.C. 20005-3701 www.nealrgross.com

1	BRIAN ANDERSON: Okay.
2	MICHAEL WENTZEL: Anyway, as I was saying
3	I don't have an indication of what slide I'm on.
4	So if it looks like I'm out of sync with what the
5	presentation is, please just call my attention to it
6	and I'll try to get back into sync.
7	Okay. On August 1st, the NRC published
8	its Draft Supplemental Environmental Impact Statement
9	or Draft SEIS as we refer to it related to the
10	Seabrook Station license renewal Environmental Review.
11	The Draft SEIS documents the NRC's preliminary review
12	of the environmental impacts associated with renewing
13	the license for Seabrook Station for an additional 20-
14	years and today I'm here to present those results to
15	you.
16	I hope that the information that we
17	provide will help you understand what we've done so
18	far and the role that you can play in helping us to
19	make sure that the Final Impact Statement is accurate
20	and complete.
21	Here's the agenda for the meeting this
22	evening. I'm going to discuss the Agency's regulatory
23	role; the preliminary findings of our Environmental
24	Review, including the power generation alternatives
25	that were considered; I will present the current
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schedule for the remainder of the Environmental 1 2 Review; and how you can submit comments outside of 3 this meeting. From there, I will take time to briefly 4 discuss two-topics that are not related to the 5 Seabrook Station license renewal application process, and those are going to be -- well, let me correct that 6 -- the Environmental Review of the Seabrook Station 7 8 license renewal application. These are the concrete 9 issues Seabrook the at and NRC's response to Fukushima. 10

At the end of the presentation, there will be time for questions and answers on the Environmental Review process and most importantly, time for you to present your comments on the Draft SEIS.

15 The NRC was established to regulate civilian uses of nuclear material including facilities 16 that produce electric power. The NRC conducts license 17 renewal reviews for plants whose owners wish to 18 19 operate them beyond their initial license period. The 20 NRC license renewal reviews address safety issues managing the effects of 21 related to aging and environmental issues related to an additional 20-years 22 of operation. In all aspects of the NRC's regulation, 23 the Agency's mission is threefold: to ensure adequate 24 25 protection of public health and safety; to promote

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common defense and security; and to protect the environment.

Am I out of sync? Sorry about that.

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4 We're here today to discuss the potential 5 site-specific impacts of license renewal for Seabrook Station. The Generic Environmental Impact Statement, 6 which is referred to as the GEIS -- examines the 7 8 possible environmental impacts that could occur as a 9 result of renewing licenses of individual nuclear 10 power plants under 10 CFR Part 54. The GEIS, to the 11 extent possible, establishes the bounds and 12 significance of these potential impacts. The analyses encompass all operating light-water 13 in the GEIS For each type of environmental impact, the 14 reactors. 15 GEIS attempts to establish generic findings covering as many power plants as possible. 16

17 For some environmental issues, the GEIS found that a generic evaluation was not sufficient and 18 19 that a plant specific analysis was required. The 20 site-specific findings for Seabrook are contained in the Draft SEIS, which was published on August 1st of 21 22 this year. This document contains analyses of all the applicable site-specific issues, as well as a review 23 of issues covered by the GEIS to determine whether the 24 25 conclusions valid for Seabrook in the GEIS are

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In this process, the NRC staff also reviews the environmental impacts of potential power generation alternatives to license renewal to determine whether the impacts expected from license renewal are unreasonable.

For each environmental issue identified, an impact level is assigned. The NRC standard of significance for impacts was established using the White House Council on Environmental Quality terminology for `significant'.

12 The NRC established three levels of significance for potential impacts: Small, Moderate 13 and Large -- as defined here on the slide. 14 For a Small impact -- the effects are not detectable or are 15 so minor that they will neither destabilize nor 16 17 noticeably alter important attribute any of а 18 For a Moderate impact -- the effects are resource. 19 sufficient to alter noticeably, but not to destabilize important attributes of the resource. And for a Large 20 21 impact -- the effects are clearly noticeable and are sufficient to destabilize important attributes of a 22 23 resource.

This slide lists the site-specific issues the NRC staff reviewed for the continued operation of

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Seabrook Station during the proposed license renewal period. As discussed in the previous slide, each issue is assigned a level of environmental impact of Small, Moderate or Larqe by the environmental 5 The staff's preliminary conclusion is that reviewers. the site-specific impacts related to license renewal 6 for aquatic resources is Small for most species and 8 Large for winter flounder, rainbow smelt and some kelp due to the impact of the operation of species Seabrook's once-through cooling system. 10

Similarly, 11 for protected species and 12 habitats -- the staff's preliminary conclusion is that the impacts related to license renewal are Small for 13 most species and Large for rainbow smelt -- a species 14 15 identified by the National Marine Fishery Service as a species of concern. For all other resource areas, the 16 17 impacts are Small.

18 Now, when reviewing the potential impacts 19 of license renewal on the environment, the NRC staff also looks at the effects on the environment from 20 other past, present and reasonably foreseeable future 21 effects, referred 22 human actions. These to as Cumulative Impacts, not only include the operation of 23 Seabrook, but also impacts from activities unrelated 24 25 to Seabrook -- such as the development of the East

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Coast Greenway, commercial fishing and climate change. Past actions are those related to the resources at plant's the time of the power licensing and construction. Present actions are those related to resources at the time of the current operation of the power plant. Future actions are considered to be those that are reasonably foreseeable through the end of the plant operation, including the period of extended operation.

10 Therefore, the analysis considers 11 potential impacts through the end of the current 12 license renewal term, as well as the 20-year renewal While the impact due to direct and indirect 13 term. impacts of Seabrook on aquatic resources is Small for 14 15 most species and Large for winter flounder, rainbow smelt and some kelp species -- the Cumulative Impacts, 16 when combined with all other sources 17 - such as pressure from commercial fishing and effects 18 of 19 climate change -- will be Moderate for most species and Large for winter flounder, rainbow smelt and other 20 species that would be adversely affected by climate 21 In the other areas the staff considered --22 change. the preliminary conclusion is that the Cumulative 23 24 Impacts are Small.

The National Environmental Policy Act

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mandates that for each Environmental Impact Statement, 1 there needs to be a consideration of alternatives to 2 3 any proposed major federal action. A major step in 4 determining whether license renewal is reasonable or 5 is comparing the likely impacts of continued not 6 operation of the nuclear power plant with the likely 7 impacts of alternative means of power generation. Any 8 alternative must provide an option that allows for 9 power generation capability beyond the term of the 10 current nuclear power plant operating license to meet 11 future system generating needs. In the Draft 12 Supplement, the NRC staff initially considered (16) different alternatives. After this initial 13 consideration, the staff then chose the three most 14 15 likely and analyzed these in depth.

Finally, the NRC staff considered what 16 would happen if no action is taken and Seabrook 17 18 Station shuts down at the end of its current license 19 without specific replacement alternative. This а 20 alternative would not provide generation power capacity nor would it meet the needs currently met by 21 Seabrook Station. 22

The NRC's preliminary conclusion is that there is no clear environmentally preferred alternative to license renewal. All alternatives

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capable of meeting the needs currently served by 1 2 Seabrook Station entail impacts greater than or equal to the proposed action of license renewal. 3 4 Based on a review of likely environmental 5 impacts from license renewal, as well as potential environmental impacts to alternatives to license 6 renewal -- the NRC staff's preliminary recommendation 7 8 in the Draft SEIS is that the environmental impacts of 9 license renewal for Seabrook Station are not great enough to deny the option of license renewal. 10 11 Now, I'd like to emphasize that the 12 Environmental Review is not yet complete. Your comments that you present today -- and all written 13 comments received by the end of the comment period on 14 October 26th -- will be considered by the NRC staff, 15 as we develop the Final SEIS, which we currently plan 16 to issue in March of 2012. Those comments that are 17 within the scope of the Environmental Review and 18 19 provide new and significant information can help to change the staffs' findings. The Final SEIS will 20 21 contain the staff's final recommendation on the acceptability of license renewal based on the work 22

information we received in the form of comments during 24 25 the comment period.

we've already performed and any new and significant

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Now, as I said in the front of the 2 meeting, I'm the primary contact for the Environmental 3 Review. My colleague, Rick Plasse, is the primary 4 contact for the Safety Review. And our contact 5 information is here and in the slides that are part of Hard copies of the Draft SEIS are the handout. 6 7 available outside the door there, as are copies on CD-8 ROM. In addition, the Seabrook and Amesbury Public 9 Libraries have agreed to make hard-copies available You can also find electronic copies 10 for your review. of the Draft SEIS along with other information about 11 12 the Seabrook Station license renewal review online at the Web address on the slide. 13

staff will The NRC address written 14 15 comments in the same way we address spoken comments received today. You can submit written comments 16 either online or via conventional mail. 17 To submit written comments online, visit the web site 18 - -19 regulations.gov and search for Docket ID NRC-2010-20 0206. If you have written comments this evening, you may give them to any NRC staff member. 21

Now, before we open up the meeting to questions and comments, I wanted to take some time to briefly discuss two topics that are of some interest to people in attendance -- those are the concrete

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degradation at Seabrook and the NRC's response to Fukushima. While these issues are not related to the Seabrook Environmental Review and are therefore not specifically addressed in the Draft SEIS, they are issues that are being actively addressed through relevant Agency processes.

Alkali-silica reaction -- referred to as 7 8 ASR -- is a process that can occur in some forms of 9 concrete that have been exposed to water for long 10 periods of time. ASR can cause expansion and cracking 11 in concrete structures. During the course of the 12 license renewal process, ASR related degradation was found at Seabrook. As discussed during the annual 13 assessment public meeting on June 8th, there are no 14 15 immediate safety concerns associated with ASR at has problems with 16 Seabrook. NRC found no any 17 electrical system, piping or any other component as a result of ASR and the concrete walls continue to 18 19 perform within design specifications. The evaluation of ASR and its impacts on license renewal is being 20 addressed as part of the Safety Review. 21

Additionally, the NRC has requested NextEra explain how it intends to manage the effects of aging associated with ASR. The NRC has delayed the license renewal Safety Review until NextEra completes

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its evaluation and addresses the staffs' questions. The NRC will not make a decision on license renewal before it fully understands both the issues with ASR affected structures and NextEra's plan to address the issues.

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Now, since the accident at Fukushima, the 6 7 taken multiple steps to ensure the safe NRC has 8 operation of nuclear power plants both now and in the As part of its initial response to 9 future. the 10 accident, the NRC issued temporary instructions to our inspectors directing specific inspections at nuclear 11 12 power plants in order to assess disaster readiness and compliance with current regulations. The next step in 13 the NRC's review was the report of the NRC's Near-Term 1415 Task Force. The purpose of the Near-Term Task Force was to develop near-term recommendations and suggest a 16 17 framework for us to move forward within the longer 18 term.

19 The Near-Term Task Force issued its report 20 on July 12th and discussed the results of their review 21 at a public meeting on July 28th. As a result of its review, the Near-Term Task Force presented (12) over-22 recommendations 23 arching for improvement. These recommendations are applicable to operating reactors 24 25 regardless of license renewal status. Based on the

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results of the Near-Term Task Force, the Commission has directed the NRC staff to evaluate and outline which of the recommendations should be implemented.

4 The staff submitted а paper to the 5 Commission on September 9th, providing the staffs' initial recommendation of which Task 6 Force 7 recommendations can and -- in the staffs' judgment --8 should be initiated in part or in whole without delay. 9 On October 3, 2011, the staff will submit another Commission paper on its prioritization of (11) of the 10 (12) Task Force recommendations. 11

Recommendation 1 of the Task Force -- the 12 recommendation to reevaluate the NRC's regulatory 13 framework will be evaluated over the next 18-months. 14 15 To date, the NRC has not identified any issues as part of these activities that calls into question the 16 17 safety of any nuclear facility. Additionally, the review process is going on independent of license 18 19 renewal. Any changes that are identified as necessary will be implemented for all licensees regardless of 20 license renewal status. 21

For more information on the NRC's post-Fukushima activities -- including the results of the Near-Term Task Force -- you can go to the NRC's web site, the home page and click on the link -- Japan

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Additionally, there question and are answer sheets related to Fukushima and Seabrook for 7 8 those that are interested.

Now, before I turn it back over Brian, I 9 10 did just want to emphasize that we are here today to talk about the Draft Environmental Impact Statement. 11 12 We do have a limited number of staff -- but we are not experts on everything. So, if we could limit the 13 practical Draft 14 comments to the extent on the 15 Environmental Impact Statement or the Environmental Review process -- you're probably going to get more 16 robust answers than -- there is a lot more information 17 that can be found online on Fukushima, if that's what 18 19 your question is.

Okay, with that I'm going to conclude my 20 presentation and turn it back over to Brian. 21

BRIAN ANDERSON: 22 Thank you, Mike. Like Mike said, before we move to the main purpose of 23 24 tonight's meeting, which is to hear your comments --25 we would like to offer a short question-and-answer

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session and what I'll do is if you have a question related to anything that Mike just presented or the review process that the NRC's utilized to perform this Environmental Review -- that's what the NRC staff is prepared to answer questions on. If you could raise your hand, I'll come to you with the microphone. I'11 circulate through the room to cover as many people 8 that have questions during the time we have set aside for it.

10 Yes, ma'am. And if you could, please, when I bring you the microphone, just for the record, 11 12 if you wouldn't mind stating your name, just so that we can keep track of who asked what questions. 13

ILSE ANDREWS: I thank you. My name is 14 15 Ilse Andrews. I live in Exeter, which is in the I would like to know how you know 16 evacuation zone. 17 that ASR will not accelerate 20-years hence?

BRIAN ANDERSON: Thank you, Ilse, for that 18 19 question. Dave --

20 DAVE WRONA: Right now, ASR is being addressed in our Safety Review of the license renewal 21 We don't have the information from the 22 application. applicant on how they're going to be addressing this 23 in performing the aging management of the concrete 24 25 structures that are affected by ASR. We put our

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23 application review on hold until qet the 1 we 2 information from them. When we have the information 3 from them, we can commence with our Safety Review. 4 BRIAN ANDERSON: Can I see just a quick 5 show of hands -- who else had questions? Okay --I'm Doug Bogen with Seacoast DOUG BOGEN: 6 7 Anti-Pollution League. Again, on the Safety Review --8 it's kind of a process question -- what factors 9 determine whether you hold a hearing? I understand 10 it's kind of optional whether -- according to the chart that was in some of your materials -- how do you 11 12 decide whether to hold a Safety hearing or not and would you hold it here? 13 When license 14 DAVE WRONA: а renewal 15 application is submitted to the Nuclear Regulatory Commission, we go through an acceptance review to make 16 sure that it has enough information within it that we 17 can begin our technical review. At the point where we 18 19 find that there's enouqh information in the application for us to start our review, we docket it 20 on the application and post a Federal Register notice 21 that opens up a period of 60-days for an opportunity 22 23 for a hearing, which was done when the application was submitted. 24 25 I'd have to ask Michael or Rick the NEAL R. GROSS COURT REPORTERS AND TRANSCRIBERS

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1 specific dates of when we accepted the application and 2 when the initial hearing opportunity closed. Our Regulations on hearings also allow for late filed 3 4 petitions. I'm not an expert on that. We have a copy 5 of our Regulations out there and I can show you in 10 CFR Part 2, if you're interested. I know we have 6 information on our web site and even some staff that 7 8 you can reach out to to find out some information on hearings and petitions and how to get 9 into that 10 process.

If I could follow-up. 11 DOUG BOGEN: Ι 12 quess I really don't want to read through all your Regulations -- they're not the most exciting reading. 13 But I quess we just want to know whether we might 14 15 have an opportunity -- particularly concerning the ARS [sic] issue that you brought up. You thought it was 16 17 important enough to mention it tonight. Seems like that alone would be important enough to hold a hearing 18 19 here, not down in Washington or somewhere on the Safety Review because obviously a lot of people here 20 have questions that are about Safety as much as about 21 the Environment. 22

I would just say, obviously, we'll see when you get to that point. But, it seems like it would be good of you to notify the concerned people

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1	here not just that we have to go read it in the
2	Federal Register. That we ought to be informed of the
3	opportunity to request such a hearing and I just want
4	to pass that along and hope you will do that.
5	BRIAN ANDERSON: Doug, would it be okay if
6	the NRC staff followed-up with you after this meeting
7	give you a little more background on that hearing
8	process and late filed petitions.
9	DOUG BOGEN: You have my sentiment about
10	it. I just, obviously, I think many people here would
11	like to know if we have any say in this.
12	DIANE SCRENCI: There were a number of
13	contentions that were submitted on this license
14	renewal application. So, there is an Atomic Safety
15	and Licensing Board panel that's been established and
16	at this point we're moving forward in the hearing
17	process. An actual hearing, which is normally held in
18	the vicinity of the plant, wouldn't be conducted until
19	both the Final Environmental Impact Statement and the
20	Safety Evaluation has been completed.
21	In addition to the Federal Register
22	notice, there were press releases and news stories
23	that talked about the opportunity for the hearing.
24	BRIAN ANDERSON: And just for the record -
25	- Diane Screnci was providing those most recent
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comments.

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2 PAUL GUNTER: Thank you. My name's Paul Gunter and I'm with Beyond Nuclear. We are one of the 3 4 interveners in the licensing renewal proceeding on 5 this application. My question speaks to the issue that the Draft Environmental Impact Statement largely 6 reviews the Environmental Report prepared by 7 the I'm wondering -- given that there've 8 applicant. 9 already been hearings in this intervention -- if the staff in its preparation of this Draft Environmental 10 11 Impact Statement has reviewed not just the 12 Environmental Report the applicant, the by but documentation that's been submitted the 13 in intervention to date. That we now have contentions 14 15 accepted by the Licensing Board. The interveners have been given standing in the proceeding and when you 16 look at the Environmental Report and then read the 17 Draft Environmental Impact Statement, it appears that 18 19 the NRC has basically done a carbon copy of the 20 Environmental Report -- and specific, looking at the 21 Alternatives.

I'm just wondering how much actual independent review of a whole host of documentation in supplement to the applicant's documentation -- how much of that did you actually review in preparing your

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BRIAN ANDERSON: Thank you, Paul. And I believe I understand that the question is -- for contentions that have been admitted on a review and supplemental information that's been provided --

PAUL GUNTER: Yeah.

BRIAN ANDERSON: How does the NRC staff consider that information in its review process? Do I have that right?

try 10 PAUL GUNTER: I'11 be to more 11 succinct. Did you look at documentation in 12 preparation of your DEIS that was submitted during the hearings to date before an Atomic Licensing Board? 13

BRIAN ANDERSON: Thank you.

MICHAEL WENTZEL: I can answer that by --I'd say we don't wholesale rely on the Environmental Report. We do look for other relevant information -either provided during the scoping process, where we did receive input and things that we did take a look at.

We also look at other agency studies that have been done. One that I can talk to specifically was the Environmental Protection Agency's case study that they did.

THOMAS SAPORITO: [indiscernible] I can't

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hear	you.
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[after a brief pause as adjustments were made to the telephone set-up]

4 MICHAEL WENTZEL: Anyway, as I was saying, 5 we did look at the Environmental Protection Agency's case study that they did as part of their 6 specifically on Seabrook -- as part of their 316(b) 7 8 Phase-II rulemaking. We used that in preparation of So, we do look at what information that is 9 it. presented to us and try to determine whether or not it 10 is -- like we said before -- new and significant or 11 12 different than what we've done before. But I can't say that we've taken everything that we've gotten --13

PAUL GUNTER: Well, let me just --

BRIAN ANDERSON: Paul -- hold on just a second. Let me bring a microphone to you to make sure we get everything captured on the record.

18 PAUL GUNTER: I want to be really clear on 19 this. The Agency has been presented with a volume of documentation that speaks directly to this application 20 and the inadequacy of its Environmental Report 21 - particularly with regard to the Alternatives. 22 All I 23 want to know is -- did you review the documents that were submitted to the Atomic Safety and Licensing 24 25 in preparation of your Draft Environmental Board

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29 Impact Statement? 1 2 MICHAEL WENTZEL: It was. It was provided to the environmental reviewer's for their review and -3 4 5 PAUL GUNTER: And so you reviewed it? MICHAEL WENTZEL: Yeah. Absolutely. 6 PAUL GUNTER: You reviewed the documentation that's been presented to the Atomic 8 9 Safety and Licensing Board to date. 10 MICHAEL WENTZEL: I cannot say we've 11 reviewed everything that's been presented to the 12 Licensing Board to date. Ι cannot make that statement, but I know -- particularly with the initial 13 round of contentions that were submitted -- yes, we 14 15 did look at the information that was presented. And we also -- related to Alternatives -- we also looked 16 for other studies, like I said, with other government 17 agencies. We did look at various FERC studies and 18 19 cited that in our --20 THOMAS SAPORITO: I hate to interrupt again, but this is Thomas Saporito. I need to have 21 the NRC repeat their responses to whether or not they 22 23 reviewed the submittal by the interveners the

submittal that was sent to the Atomic Safety andLicensing Board before the NRC made its Environmental

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Report. 1 2 BRIAN ANDERSON: And Mike, the answer to 3 that question is -- yes, that information was 4 reviewed. Is that correct? MICHAEL WENTZEL: Right. For the initial 5 round of contentions --6 didn't PAUL GUNTER: You review 7 8 everything. 9 MICHAEL WENTZEL: I know. I'm going to I said for the initial round of 10 clarify that. contentions, we did review the information that was 11 12 presented. I cannot say that we've looked at -- I or the environmental reviewers specifically --13 have looked at, in-depth, at everything that has been 14 submitted to date -- is actually what I said. 15 BRIAN ANDERSON: Did those on the phone --16 were they able to hear the restatement of the answer? 17 That the NRC environmental review staff --18 19 THOMAS SAPORITO: Yes, thank you very Yes -- yes, thank you very much. 20 much. 21 BRIAN ANDERSON: Okay. Sir, I'm going to come to a question over here and I'll come back to you 22 23 -- okay? DEBBIE GRINNELL: This concern that I'm 24 25 going to raise was raised --**NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. (202) 234-4433 WASHINGTON, D.C. 20005-3701 www.nealrgross.com

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1	BRIAN ANDERSON: I'm sorry would you
2	mind, for the record
3	DEBBIE GRINNELL: Debbie Grinnell
4	BRIAN ANDERSON: Thank you.
5	DEBBIE GRINNELL: I live in West
6	Newbury, Mass. Paul Gunter, Beyond Nuclear, raised
7	this scheduling concern that many of us have and I do
8	know that the seismic vulnerability the individual
9	report from the plants is a two-year process. It
10	was submitted to the plants on September 1st of 2011,
11	which means that they have until September 1, 2013
12	except the Final SEIS is scheduled for March of 2012.
13	Now, I also know that the in-depth
14	assessment and determination if there's any structural
15	integrity issues at four safety related foundations
16	concerning the ASR concrete that the plant has had
17	to delay their testing and core results. I don't
18	think we're expecting them until March. I think it
19	was pending until March of 2011. So, how could you
20	possibly assert that you're going to have a Final
21	Draft of the SEIS when you have two major unknowns in
22	the Environmental Impact review?
23	MICHAEL WENTZEL: I can answer that. The
24	Draft letter that you're referring to that's being
25	handled for all licensees. Again, that's being
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handled generically for all operators. I can also 1 2 tell you that for the Draft SEIS for the Seabrook 3 license renewal application -- where that's handled is 4 in the Severe Accident and Mitigation Alternatives. 5 It's not, per se -- it's handled as part of the Severe 6 Accident and Mitigation alternatives. And it's 7 actually the reason that the Environmental Impact Statement -- the Draft SEIS -- was delayed from its 8 9 initial scheduling date because we had multiple rounds of RAIs with the applicant asking them to assess these 10 11 new hazard curves and their impact on the Severe 12 Accident and Mitigation -- also known as SAMA Analysis. 13

ROBIN WILLITS: My name is Robin Willits 14 and I'm a citizen of Exeter, which is within the 15 evacuation area. I'm interested in your 16 impact 17 process tonight. I think inviting people to make 18 comments and that is something that I respect very 19 much and appreciate. I am concerned on this count --20 this is a very small audience. I think it's good we have people like SAPL -- who have more technical 21 knowledge than somebody like me -- who could raise 22 23 those good questions. But my question to you is -how important is it to you that the general public 24 25 know about this meeting and get them to come to this

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1	meeting and have a chance to give some kind of
2	educated comment? How important is it and what
3	specific steps did you take to help ensure the general
4	public would be represented here more than I think it
5	is now here? Such as: giving out some documents of
6	your summary of what we heard tonight very briefly
7	and very fast; giving it to the public for some chance
8	to digest beforehand; announcing it in the newspapers
9	or other ways to inform and get the public here to
10	give some comments. I'd like to know that about your
11	process and ask what your desire is and what steps you
12	took?
13	BRIAN ANDERSON: Thank you, sir, for that
14	question. Mike can you speak a little bit to the
15	details that go into planning these meetings and how
16	the public is made aware of the NRC process?
17	MICHAEL WENTZEL: I can. This meeting
18	when we first issued the Draft SEIS, we put notice in
19	the Federal Register announcing that fact. I know
20	that that's not necessarily everybody's first go-to
21	every day. So that was our initial announcement of
22	the availability of the document and that we're going
23	to have this meeting. We've also advertised in two of
24	the local papers. We did three I'm sorry, I was
25	distracted by the monitors (2) of the local papers,

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we did three different advertisements leading up to this meeting. There's also been multiple rounds of press releases that the NRC has issued.

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4 When we first initially issued the 5 document and then about two or three-weeks ago, we did another round of press releases to inform the public. 6 We also, about three-weeks ago, put out posters in 7 8 the area advertising that meeting. So, public 9 involvement in this process is crucial. That's the whole basis behind the National Environmental Policy 10 11 Act is to get people involved in the process for the 12 federal government. So, to answer that guestion -public involvement is very important in that. 13

BRIAN ANDERSON: Yes, ma'am. I think we have time for one, maybe two more questions before we take comments.

PHYLLIS KILLAM-ABELL: This is a follow-up question to the previous one. When you say -- a couple of newspapers -- what were those newspapers? What newspapers were they?

21 MICHAEL WENTZEL: I have it written down. 22 I'm not familiar with it. I believe it was the 23 Seacoast Online -- it was advertised -- I've seen it 24 there.

Do you have a contact sheet?

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Here we go -- it was the Daily News, Newburyport News and the Hampton Union. And then the Daily News -- that was advertised on September 9th, 12th and 14th --

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5 PHYLLIS KILLAM-ABELL: I don't read -excuse me -- but I don't read those newspapers. 6 Ι 7 live in Exeter. There is an Exeter Newsletter that's 8 published twice a week and there is the Portsmouth 9 Herald that's published that covers the seacoast and that's within the region that will be affected. 10 Ι would have no way of knowing this. Your publication 11 12 is not wide enough. I wouldn't know that.

13 MICHAEL WENTZEL: Okay. I apologize for 14 that. I do know that the story was picked up in the 15 Boston Globe -- to what effect that has on it. So it 16 was fairly widely circulated.

17 PHYLLIS KILLAM-ABELL: If you want really want people to know --18 you blanket the 19 You blanket the northern part, particularly seacoast. of Boston. You really let people know. That's not an 20 effective publicity campaign at all. 21

Okay. 22 MICHAEL WENTZEL: Well, thank you for your comments. I think that we'll take that back. 23 24 BRIAN ANDERSON: That is an important 25 for the staff to consider -comment NRC the

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36 distribution of newspaper advertising and the local 1 2 Thank you for that comment. news. 3 One last question before we move into the 4 comment period. Hi --5 WILLOW MAUCK: Yeah, well, there was a 6 follow-up on that question too because I think -- I was curious as to -- he said what their desire was --7 8 how much you wanted to actually get the word out about 9 this thing? And I don't think that that was actually 10 answered in the question. So, I was curious. 11 BRIAN ANDERSON: I think that part of the 12 that public participation is answer was - an important part of the NRC's review process. I believe 13 Mike said that. Was there 14 that something more 15 specific that you were looking for as a follow-up to that? 16 17 WILLOW MAUCK: So, that is it. So, it's the SeacoastOnline and those papers. Like she said 18 19 aren't really very effective press to release to 20 actually have the public know about it. So, it seems that maybe there it is not much desire there on the 21 NRC's behalf to have the public know. 22 So, I was wondering how much it really does mean to the NRC for 23 the public to know about something like this? 24 25 MICHAEL WENTZEL: I don't know how else to NEAL R. GROSS COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701

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answer that question. I mean, it is important. I mean, obviously, we didn't cover every publication that we probably could have. But, it wasn't that we were avoiding the public input. Like I said, we did issue a couple rounds of press releases that did get picked up in newspapers that we didn't specifically take out ads in. So, the story was fairly widely available.

9 BRIAN ANDERSON: Thank you both for those The NRC staff will take that as a serious 10 questions. comment for consideration just for future process. 11 12 It's important for the NRC to make sure that they're aware of how the circulation of news in the local 13 community works and how that can possibly be improved 14 15 in their routine process.

16 ROBIN WILLITS: If you get a trained 17 marketing person that knows the way to get an idea 18 across.

19 BRIAN ANDERSON: Thank you, sir, for that For those who didn't hear -- the suggestion 20 comment. was to utilize trained marketing expertise, who might 21 various avenues to disseminate 22 better know the information in the local community. Thank you again 23 for that. 24

Thank you all for your questions and we're

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now at the most important part of the meeting agenda -1 2 - and that is to hear your comments. For those that 3 might have come in late -- if you wish to provide 4 comments on the record tonight, please register with a 5 yellow card out in the lobby. That serves just as a sequence order, so that I can keep track of who has 6 7 made comments and who is still yet to speak. No one's 8 required to make comments, but if you wish to make 9 comments here -- to be on the record tonight -- please 10 fill out a yellow card and I'll make sure that you get 11 your chance to speak.

12 As a quick reminder, before we get into the comment period -- there are a lot of people that 13 want to talk tonight and I want to make sure that 1415 everybody has an equal opportunity to participate. When providing your comments, please speak into a 16 17 microphone. Please try and keep your comments concise and within a five-minute time limit. This is not your 18 19 only opportunity to provide comments and making comments here tonight is not the only way to have the 20 NRC take your comments for consideration. 21

The first speaker will be Chris Nord followed by Mary Lampert. What I'd like to ask is that speakers just come forward to the center podium and I'll provide the microphone --

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Well, my first comment is for the NRC to 3 4 say that -- I think that it's plain that the NRC has a 5 public relations problem and maybe most of all in the area around Seabrook. If you -- as staff members of 6 the NRC -- are interested in helping that process 7 8 along, it might help to convince the general public that you do actually care about the general public 9 coming to meetings like this, if in fact the comments 10 that were made and documents that were submitted to 11 12 NRC actually got reviewed in time to be a part of reporting and so that comments such as my own and 13 other peoples' that are coming forward somehow do get 14 15 incorporated into your hearing process. I understand that's a possibly difficult task, but that is in fact 16 17 task that you are charged with. If you're the interested in having the general public up here to 18 19 make comments, I think the general public would like 20 to see our comments being made a part of this process. In the spirit that that may in fact take place, I'm 21 going to forge ahead by attempting to talk a little 22 bit here about tritium. 23

Just as one example of many radionuclides that the general public remains at risk of being

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exposed to within the ingestion pathway -- that is 1 2 within 50-miles of any reactor -- here or in Japan or 3 anywhere that reactors operate in the world. The 4 reason that I focus on tritium I hope to make obvious, 5 but my first strong suggestion to NRC is that the owners of Seabrook should be required by NRC to show 6 proof positive that leakages and emissions of nuclear 7 radionuclides, such as tritium, have been prevented 8 entirely into the atmosphere, into the air, 9 into groundwater -- in keeping with conclusions drawn from 10 the National Academies of Science BEIR VII Report --11 12 that is the Biological Effects of Ionizing Radiation that was released a couple of years ago -- that a 13 conclusion from that study can be made that there is 14 no threshold below which radiation is safe. 15 And if NRC were actually to enact their regulations based on 16 17 the National Academies' findings, that should mean that nuclear plants -- atomic plants like Seabrook --18 19 should not be emitting radionuclides.

I'm focusing on tritium for good 20 Now, There was a study conducted in the state of 21 reason. Massachusetts a number of years ago that focused on 22 the Deerfield River Valley and was eventually signed-23 you off on by the State officials within the state 24 25 Health Department of Public for the state of

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Massachusetts that showed statistical significance for things like certain cancers and Down's Syndrome in the Deerfield River Valley -- which was close to the Yankee Rowe plant before it closed. Apparently, those findings of cancer were eventually linked to exposures in the Deerfield River Valley to tritium.

7 I have in my possession a report that was done by a group out in western Mass. -- the Citizens 8 9 Awareness Network -- that was involved in creating 10 that study that talks about three very important 11 effects of tritium -it's carcinogenic, it's 12 mutagenic, and it's teratogenic. Teratogenic meaning that it is possible that exposure to tritium will 13 cause genetic defects down the line. The other two, I 14 15 think, are self-explanatory.

The reason I'm bringing up tritium in 16 17 relation to Seabrook in particular -- it could be Cesium-137, it could be Strontium-90 -- but here, word 18 19 has come down to me that the owners of Seabrook have been boring test wells over the last -- in the recent 20 past -- apparently looking for traces of tritium. 21 Ι don't know whether the wells have been dug deeply 22 23 enough -- I don't know anything about the wells -- and I don't know what's been found. I think that 24 it 25 should be part of the public record to know if tritium

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is actually leaking from the reactor at Seabrook. But, God save the people that are close to that nuclear reactor if tritium gets in the groundwater and travels. I think that the NRC should be holding, not only Seabrook, but all reactors to account for their releases of tritium.

And I'll say, finally, in relation to tritium -- that it does us on planet earth no good if we're using nuclear power as a way to bridge our energy toward a carbon-free future, if by doing so we've taken on this Faustian bargain of irradiating the earth in the process.

The next thing I wanted to say is -- why 13 does the Nuclear Regulatory Commission not require 14 15 independent monitoring of radiation that allows reactor community residents and first responders --16 not only here, but all over the United States -- to 17 know the real-time direction, location and intensity 18 19 of radioactive plumes in the event of a radiological 20 event.

If that had been put in place 15-years ago for reactors around the country -- such as Seabrook -and the NRC was actually looking at that information as a part of its evaluation of relicensing -- then the NRC would have some strong data on which to base the

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actual safety of this plant. But, without that information -- what do you really have for data as far as the health and safety of the local environment, if you don't actually know what radiation is being emitted? So, that should be done not only here, but that should be done all over the world.

I want to point out for those of you that 7 8 don't know that there's one group in this area -- the 9 C-10 Research and Education Foundation out of 10 Newburyport, Massachusetts -- that at this time has the model independent monitoring system in the entire 11 12 United States and we have actually had visitors from Fukushima come to C-10 because people all over the 13 world have suddenly become interested in how 14 to 15 properly monitor for radiation.

My last two-items have to do with hardened 16 17 storage of spent fuel. You should be on-site requiring hardened on-site storage as a prerequisite 18 19 for relicensing. I'm also curious to know -- and I 20 could just leave this as an open question -- if there's any consideration being given to the potential 21 for inundation of coastal floodplains over the next 22 23 If you're considering relicensing at this 25-years? time, then you have to be considering inundation in 24 25 relation to global warming. Thank you.

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BRIAN ANDERSON: Chris -- thank you for those comments. I'll check one more time. I believe that Mary Lampert is not here in the room -- so the next speaker would be Paul Gunter and after Paul --Representative Peter Schmidt.

Thank you. My name is Paul PAUL GUNTER: 6 7 Gunter and I'm director of reactor oversight at Beyond Nuclear out of Tacoma Park, Maryland. We are one of 8 interveners the in the Seabrook relicensing 9 proceeding. As I mentioned earlier, we've already had 10 a preliminary hearing before an Atomic Safety and 11 12 Licensing Board. Specifically, our contention has to with the environmental alternative and 13 deal the requirement of the National Environment Policy Act for 14 Seabrook to consider the environmental alternatives 15 and the NRC to incorporate that in its decision for 16 17 licensing renewal.

18 When I read the Draft Environmental Impact 19 Statement, I note that within 54-lines the NRC is able to dismiss the alternative of wind power in the region 20 of interest. What this says to me is that the Agency 21 -- particularly the staff in its review -- did not 22 23 look at the documentation that was presented to -- in 24 a persuasive argument to even your own Atomic Safety 25 and Licensing Board -- enough for you to incorporate a

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whole host of documentation, which I'm going to briefly go through here, as long as my time permits. But it seems apparent that these concerns are falling regard upon deaf ears with to the Agency's consideration.

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Within 54-lines, basically you say that --7 the wind energy alternative is intermittent and not 8 feasible in terms of baseload power -- and that -- its availability, its accessibility and its consistency is not of a standard for addressing the environmental 10 impacts that are forced upon us by the continued 11 12 operation of the Seabrook plant.

In fact, what this does -- the statement 13 Draft Environmental 14 of fact - as your Impact 15 Statement reads -- basically takes a page out of the Environmental Report of the applicant in that your 16 17 perspective is a review of the alternative at this 18 I think that that's disingenuous when we're time. 19 talking about not issuing a relicense application 20 tomorrow or even 10-years from now, but 20-years from now -- approximately -- we're talking about this time 21 frame. 22

is 23 In fact, what it does serve to 24 obfuscate a whole host of expert documentation, 25 Memorandums Of Understanding and basically -- as we

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have contended, as your Draft Environmental Impact Statement reinforces -- that the NRC is not following the requirements under the National Environment Impact Statement [sic] that you must honestly acknowledge and be sufficiently complete in your review.

Let me just read a couple of these as time 6 7 would permit me. When you talk about that it's not a 8 reliable baseload power source -- what you do is that 9 you've ignored Exhibit Number-4 in our intervention, 10 which is entitled -- Supplying Baseload Power and Reducing Transmission Requirements by Interconnected 11 12 Wind Farms -- from the Journal of Applied Meteorology and Climatology, which was prepared by Stanford 13 University. This scientific manuscript concludes --14 15 contrary to common knowledge -- an average of 33% and a maximum of 47% of yearly averaged wind power from 16 interconnected wind farms can be used as reliable 17 baseload electrical power. Equally significant --18 19 interconnecting multiple wind farms to a common point and then connecting that point to a faraway city can 20 allow for the long-distance portion of transmission 21 capacity to be reduced, for example, by 20% with only 22 1.6% loss of energy. Nowhere in your evaluation do 23 you acknowledge the expert opinion that already in 24 25 this day and age -- the baseload promise, the baseload

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capacity is in fact clearly feasible.

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2 There are an increasing number of news 3 accounts and current events that reveal that there is 4 in fact this building of momentum for baseload power. 5 For example, you do not mention in your Environmental Impact Statement that Google Corporation has already 6 invested \$5 billion of its money to lay the first 7 vertebrae of a backbone of offshore wind transmission 8 9 from Virginia to Maine. So, your dismissal of this 10 power source as a baseload power for the license period of 2030-2050 -- I think, again, it demonstrates 11 12 disingenuous approach looking the to at а environmental impact issue. 13

A few more examples here. The potential 14 15 here is just tremendous. There are now (9) European North Sea countries -- Germany, 16 France, Belgium, 17 Denmark, Sweden, Norway, Great Britain the and Netherlands -- that have announced an investment of 18 19 \$40 billion in an offshore, undersea, energy supergrid, which basically is dedicated to 20 smart the transmission of renewable energy. This investment and 21 development supports a model for the United States, 22 23 which your own Draft Environmental Impact Statement 24 ignores. I mean, we can go on.

The University of Delaware and Stony Brook

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University study -- they did a study that says that based five-year wind data from (11)on а meteorological stations distributed over a 2,500 km extent along the U.S. Eastern Seaboard -- power output for each hour of the site is calculated and in short that -- there is evidence that the wind blows all the if time somewhere and interconnected along а transmission line you have a demonstrated baseload.

But since I'm about to be cut short here, 9 10 I just want to also note that what you've ignored are Memorandums Of Understanding, bids that are now going 11 12 on with the state of Maine. By 2030 -- so by the time you're talking about this license renewal to take 13 effect in this federal action that you're looking at -14 15 - the state of Maine is looking at having 5 gigawatts of wind in the offshore waters -- 10 to 50-miles out 16 into the Gulf of Maine. That's the equivalent of (5) 17 Seabrooks. And again, there's no mention of this in 18 19 your Environmental Impact Statement review.

don't think that 20 Ι that's an honest evaluation. I think that what it does is it does not 21 build public confidence that this Agency is doing 22 just promoting this 23 nothing more than industry. That's not your job, particularly when we now know 24 25 that Seabrook -- what it forces upon us are these

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environmental consequences that require emergency planning zones -- out to 50-miles -- enhanced security because of the environmental threat that putting these reactors in our communities is all about and the alternatives clearly don't represent that level of threat. And you've ignored this.

BRIAN ANDERSON: Paul -- thank you for those comments. Representative Schmidt and then we'll hear from Paul Blanch.

10 REP.PETER SCHMIDT: Thank you. I'm Peter Schmidt. I represent Dover, Wards 1 and 2. I am not 11 12 a scientist -- and not even to say a nuclear scientist -- and I don't speak as a scientist, but rather as a 13 policymaker. I've been in the legislature now for 14 15 nearly 9-years and I was 3-years as a Dover City Council before that, so what I am in the business of 16 17 is judgment with regard to policy.

I would have to say that just -- before I 18 19 begin my more pertinent remarks -- that what Paul has 20 just referred to, but also the questions with regard to contacting the public -- demonstrate either a 21 somewhat willful disregard of some of the facts, which 22 one could possibly attribute to somewhat of a silo-23 type of thinking -- you're focused on your specific 24 25 looking in the wider thing -bailiwick and not

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perhaps disregarding the information which Paul eluded to.

But with regard to trying to get the 3 4 public to be informed -- the bottom line here is if 5 you asked virtually any resident of the seacoast, certainly the elected representatives, with regard to 6 7 contacting the public in this area -- I think they 8 would've said that some of the publications you referenced would be useful, but by no means sufficient 9 -- ads in the Union Leader, Portsmouth Herald, the 10 Dover Foster's Daily Democrat and other more widely 11 12 circulated papers would certainly have gotten you a lot more feedback from a much wider area, which is 13 perhaps not within the evacuation zone, but would 14 15 definitely be impacted by the relicensing of Seabrook.

don't try to address the scientific 16 Ι aspects of this issue. I'd like to look at the larger 17 picture because the fact of the matter is -- my 18 19 greatest concern is not the possibility of terrorism or environmental disaster -- I think those are all 20 much more on your mind and possibly more predictable. 21 But, if I mention such things as Fukushima or Three-22 Mile Island or Chernobyl, or the Titanic disaster, for 23 that matter -- I don't do so in order to create an 24 25 alarmist sentiment, rather because they but

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demonstrate the fallibility of human design concepts, but also the unpredictability of future events.

And certainly, just in the last 10-years, 3 4 we've seen Fukushima, we've seen the Twin-Towers and 5 September 11th. And those things demonstrate that we're not very good at predicting the future. That 6 7 there are all types of things that are happening and 8 one of the concerns that we certainly have is global 9 Seabrook is very close to the ocean, warming. 10 obviously. I'm wondering -- we read recently, for 11 example, that several nuclear power plants along the 12 Missouri River were essentially isolated and may have experienced some flooding -- we're very concerned in 13 this area what that type of thing might generate. 14

15 My primary concern here is that we are engaged in the relicensing process way too far in the 16 17 I just cannot believe that it is appropriate future. to relicense Seabrook at this time when the current 18 19 license is not even remotely ready to expire. What do we really know about what the situation is going to 20 Some of the aspects have eluded to -- the 21 be. 22 possibility of degradation of the plant's 23 infrastructure -- but all these other aspects, which I've just very briefly touched on -- suggest to me 24 25 that this is -- a relicensing of Seabrook at this time

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-- is incredibly premature given all the things that 1 2 we absolutely know are potential problems: a terrorist 3 act, the storage aspect, the sea level rise and those 4 types of things. Those are the types of things that 5 we already have some knowledge of even if we can't predict exactly how they will manifest themselves over 6 7 the next 10 to 20-years. But, certainly, the idea of 8 committing this region to this ongoing operation of this plant -- when we're not even close to 9 the 10 expiration of the current license -- strikes me as 11 very, very concerning.

12 So, that is my gravest concern -- that we are jumping off the bridge or jumping off the ship 13 before it's even beginning to founder. And committing 1415 ourselves to a situation that I think is questionable, if not unwise. And I'll leave it at that. 16 You get 17 the message, but to the degree that you're engaged in either an active promotion of the nuclear industry, 18 19 regardless of all of the facts and regardless of 20 whether the public is in support of that, or whether there are real alternatives -- and I have seen the 21 presentation that Paul alluded to in his remarks with 22 regard to the potential for offshore wind. 23

This is not some pie in the sky -- this process is already very far along and it's making

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53 rapid progress. Jumping onto the Seabrook life-raft 1 2 at this particular point, I think is, as Ι say, 3 extremely questionable. I hope that you will exercise 4 your authority to weigh the alternatives and the 5 question of -- when it is appropriate to relicense. And I think the time is not yet now. Thank you. 6 7 BRIAN ANDERSON: Thank you, sir, for those 8 The next speaker is Paul Blanch -- is Mr. comments. 9 Blanch in the room? Is there anyone else named Paul 10 that registered to speak? Okay. The next speaker is 11 Thomas Saporito -- who I believe is on the phone. Mr. 12 Saporito -- can you hear me? THOMAS SAPORITO: Yeah. Can you hear me? 13 BRIAN ANDERSON: I can hear you. 14 I'm 15 qoinq to try and place a microphone near the speakerphone to see if that'll better allow everyone 16 17 else in the room to hear you. When you're ready to make your comments -- it's your time. 18 19 THOMAS SAPORITO: Can you hear me now? Can the court reporter hear me? 20 BRIAN ANDERSON: Yes, he can. You are on 21 the record. 22 THOMAS SAPORITO: Okay. First of all, my 23 24 name is Thomas Saporito. I am the senior consultant 25 Sapordani Associates with and we're located in **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701

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However, before I get into that, I just want to follow-up on the prior speaker's comments on the NRC being premature in their endeavor to relicense this nuclear plant so far in advance.

8 It's my perspective, after monitoring the 9 NRC for some 25-years, that the NRC is involved in a 10 rubberstamping these 20-year license process of extensions to nuclear power plants that were only 11 12 originally licensed to operate safely for 40-years. The NRC is aggressively rubberstamping these licenses 13 because there are Senators and Congressmen who are 14 15 actively trying to put a moratorium on relicensing nuclear power plants. So, now there is a race between 16 Congress and the Nuclear Regulatory Commission with 17 respect to this issue. So, that's the heart of it all 18 19 right there. It's not the fact that the NRC's trying to protect public health and safety in this instance. 20 21 In this instance, the NRC is in a footrace trying to rubberstamp these licenses without due process. 22

With respect to this specific plant and the relicensing issue here -- the NRC appears to have failed in its Environmental Review to consider the

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brittleness of the metal that comprises the reactor vessel. The Associated Press recently did a year-long investigation of the NRC and found the NRC to be complacent and found that these nuclear power plants were only licensed to safely operate for 40-years. The Associated Press investigation confirmed that the Agency is rubberstamping these license extensions at the peril of public health and safety.

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So, I would encourage and request that the 9 10 NRC require the licensee -- NextEra Energy -- to do 11 destructive testing analysis of the metal which 12 comprises the nuclear reactor vessel, to ascertain the exact degree of imbrittelment that may currently exist 13 in that reactor vessel. Because if that reactor 1415 vessel cracks from the neutrons that are bombarding it -- you're going to have a loss of coolant accident 16 17 that you could not recover from and you'd be melting down, just like the reactors in Japan. Once you do 18 19 that analysis, then you can prorate that and see if that reactor vessel's going to crack if the license is 20 extended 20-years beyond its 40-year license. 21

The next issue would be the alternatives. The NRC's Environmental Review and report is a joke on the alternatives. First of all, if the NRC would simply -- in their review -- have considered

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installation of on-demand electric water heaters for 1 all the customers of NextEra Energy, you would reduce 2 the grid's electrical load demand by 50 to 70% with 3 4 the installation of just that one appliance. If you 5 add solar systems to the customers of NextEra Energy -- you would have a zero footprint. You would actually 6 7 -- those customers would actually be putting power 8 into the grid and you wouldn't even need Seabrook. 9 would have surplus with You power those two 10 initiatives. You wouldn't need Seabrook to operate at all. 11

12 And that's required. Those analyses are the Agency to 13 required by be part of their Environmental Report. I don't see it in there. 14 And 15 these are realistic, real-time -- if you go to our web saporito-associates.com -- there's 16 site а hyphen 17 between those two words -- you will see the evidence where those systems are already in place for many 18 19 years -- they're not something new. This has been 20 going on for years.

The next issue would be earthquakes. The NRC Environmental Report should have required the licensee to do a new seismic evaluation of the Seabrook facility. Just as recent as August the 23rd of this year, the North Anna Nuclear Power Plant

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experienced a seismic event outside its design basis. Okay? Outside its design basis. So, the NRC granted North Anna a license and had an earthquake event happen outside its design basis. Who's to say that there's not going to be a seismic event that's going to be outside the design basis of the Seabrook plant? That's something that's supposed to be in the NRC's Environmental Report and I don't think it's sufficiently in there -- if it's in there at all.

The final item I want to address to the 10 11 NRC is with respect to the environmental consequences 12 of the NRC's action allowing this nuclear plant to operate for 20 more years. It's going to adversely 13 affect the environment because it's going to introduce 14millions and millions of BTUs worth of heat that would 15 not otherwise be introduced into the environment 16 because the reactor -- the fuel in the nuclear reactor 17 core has to continuously be cooled by water and that 18 19 heat is dumped into the environment. If that nuclear 20 plant wasn't operating for 20 more years, you wouldn't have 20 more years of heat being dumped into the 21 that wasn't there before. 22 environment That all contributes to global warming. 23 Okay? You may have a footprint 24 near zero carbon with nuclear power 25 production, but you damn sure have a lot of heat being

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unnecessarily put into the environment. 1 2 So, these issues I would hope and urge the NRC to take seriously and to incorporate them into 3 4 their Environmental Report and I would hope that the 5 interveners in the current licensing proceeding are addressing these issues, as well. Thank you very 6 much. 7 8 BRIAN ANDERSON: Thank you, sir, for those 9 Thank you for joining us by phone and thank comments. 10 you for your comments. The next speaker is Ben Clichester -- did I say that even close to right? 11 After Ben -- Randall Kezar. 12 BEN CHICHESTER: Chichester. 13 BRIAN ANDERSON: Chichester 14 Ben Chichester. 15 BEN CHICHESTER: Good evening staff of the 16 17 NRC. We know that this meaning is a farce coming in here because we've been through this with you guys 18 19 plenty of times before. We know it's a feel-good 20 thing and a technicality for you to have to go through 21 this public hearing. UNIDENTIFIED Please 22 AUDIENCE MEMBER: speak into the mic. 23 BEN CHICHESTER: This is a public hearing, 24 25 but it is a farce and we know that coming in here. **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. (202) 234-4433 WASHINGTON, D.C. 20005-3701 www.nealrgross.com

It's a farce I say because if it wasn't a farce then 1 2 we wouldn't be having to address so many ridiculous 3 considerations that you are pretending are something 4 that is manageable and real. I can mention a few, but 5 one of the things that comes to mind is the Evacuation Calendar that is sent out to us on a regular basis. 6 7 It tells us where to go if there's a nuclear problem. 8 But, everybody knows that you don't go where the wind 9 is blowing and there's no accounting for that in the Evacuation Calendar. 10

Initially, we were told we were going to not have a power plant if you couldn't have an evacuation plan that was workable. But then we were told that it was enough just to have an evacuation plan -- it didn't have to work. That's one example of the kind of farcical nature of this meeting.

17 There are too many things that you are not considering. We live in a world where the health of 18 19 our economy and the very functioning of an economy is at risk from day to day from total breakdown. 20 Where is the money going to come to pay for and who is going 21 to be in charge of paying for the costly work of 22 maintaining and protecting the citizens from spent 23 24 fuel pools? Who's going to pay when the seawater 25 rises from global warming and we have popping sounds

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with explosive plumes coming from Seabrook? Who's going to pay? Where's that money coming from?

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We've already heard testimony here that 3 4 several plants were perilously close to flooding out 5 West and there is no assurance that this is not going to happen here. But you can come into our town and 6 tell us that there is no safety impact 20 to 40-years 7 8 down the road from this plant. All this period of 9 time that you are proposing to extend this license -the waste will be building up in and on the site. 10 That's a new uncharted territory because I don't 11 12 believe you know how to take care of that much waste in one spot. You've never done it. 13

I think that there's an inherent collusion between the industry and the NRC. I've heard that the NRC gets most of its funding from the industry. This may or may not be true.

PAUL GUNTER: 90%.

19 BEN CHICHESTER: How can you say that we're going to be safe from terrorist attacks on the 20 plant either from foreign or domestic sources? 21 The Price Anderson Act says that the industry doesn't have 22 to pay very much in the event of a catastrophic 23 accident, but our government really can't afford to 24 25 So, it seems like we're going to pay for it either.

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be stuck there.

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You're only thinking about 20-years at a time, but we should be thinking like the Native Americans think -- which would be more like sevengenerations ahead. 20-years is sort of a selfish way of looking at what we're doing with these nuclear plants. We should be looking down the road so that we can ensure life on this planet will go on for a long time.

We have companies like Westinghouse and 10 General Electric -- we're told that they bring good 11 12 things to life. You boys are here and you're the functioning corporations 13 arm of these the - rubberstampers -- that allow this pollution to 14be 15 created. We are tired of the corporations -- the mafia -- the corporate nuclear mafia -- controlling 16 17 our lives here on the seacoast with your nuclear plants forced on us above and beyond our local votes. 18

I know we're supposed to be here debating whether or not it's going to be more prudent to have a nuclear plant as opposed to some other form of energy, but I can just tell you that the nuclear plants are highly energy intensive to make them and to run them. So, there's a lot of carbon involved in that process -- global warming will increase. But the alternatives

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and the renewables -- which we've already heard testimony -- are coming really fast and you can't tell me today that they can't take the place of this nuclear power plant 20-years down the line. And here you are 20-years ahead of time looking for extended license for your corporations that are making the money.

8 heard of internal Have you ever an That's a 9 emitter? little piece of plutonium or 10 strontium that comes from these plants that can make its way into the food chain and all it takes is a 11 12 little speck of it to be ingested to get cancer. So, you're making tons of this product that nobody has an 13 answer for it. And it's happening all over the planet 14 15 really -- we've got to stop. We've got to stop making nuclear waste because the waste has turned into 16 17 nuclear bombs and it's a dirty process from the mining of the uranium, all the way through. 18 It's the same 19 corporations that give us nuclear power that gives us 20 nuclear weapons. And it was all given to us secretly. 21 then we were told it was great And by little documentaries they teach to school children. 22 So, we 23 know what we're doing here tonight. And we know who we are up against. I would just hope that we can get 24 25 real and see what we're doing -- see what we're doing

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63 to this planet. And try to do things better. And try 1 2 to be truthful about what's going on. Thank you. Thank you, Ben. 3 BRIAN ANDERSON: Next 4 speaker is Randall -- is that Kezar? 5 RANDALL KEZAR: I'll submit a written [indiscernible]. 6 BRIAN ANDERSON: Okay. So, Randall, I 7 8 understand that you don't want to speak tonight, but 9 you're going to provide written comments at a later time? 10 11 RANDALL: Yes. 12 BRIAN ANDERSON: Okay. Thank you. The next speaker is Robin Willits and after Robin -- Ilse 13 Andrews. 14 ROBIN WILLITS: I will be very brief. 15 Ι just want to add to what's been said. I have never 16 heard who benefits from continuing the plant another 17 20-years. Is there any public benefit? And I think I 18 19 can think of reasons that there might be benefits to 20 the corporation, but I want to know why the NRC is supporting extension without defining what is the 21 benefit to the public. 22 23 BRIAN ANDERSON: Thank you, Robin. Ilse -24 25 Thank you. Good evening. ILSE ANDREWS: NEAL R. GROSS COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. (202) 234-4433 WASHINGTON, D.C. 20005-3701 www.nealrgross.com

I've lived a long life. Very early in my life I spent years in air-raid shelters in Europe. Life does not become much more dangerous. When I drive past Seabrook, I consider it nothing more than an ominous presence. I see nothing friendly or beneficial about it. And I cannot understand why there is an effort to prolong it, when we have viable and -- if there's such a word as -- provable alternatives.

9 standing here only because of I'm my 10 concern for future generations. It makes my hair 11 stand on end when I read the phrase -- unavoidable 12 adverse impacts with regard to Seabrook emissions. And on the slides this evening, there was a remark 13 that said -- the NRC's response to Fukushima, among 1415 other things -- is that here there is no imminent risk to public health and safety. Imminent means right 16 17 now, not 20-years or 21-years hence.

18 All of what I'm saying leads to a sort of 19 rhetorical question -- if current NRC regulations 20 permit such unavoidable adverse impacts and on the admittedly responsible 21 other hand you are for protecting our health and safety, then I would like to 22 23 are you doing to change ask you -- what these 24 regulations? Thank you.

BRIAN ANDERSON: Thank you, Ilse. The

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next speaker is Herbert Moyer and after Herbert --Marcia Bowen.

3 HERBERT MOYER: Thank you. Herb Moyer --4 I live in Exeter. I'm a teacher. I was teaching at 5 Winnacunnet when the plant first came online and we teachers were told we had to stay with students to 6 7 evacuate through bus transportation in case of an 8 accident. Of course, we now know the drivers of the 9 buses have subsequently said they would not show up. 10 So, I don't know really what plans the utility has 11 actually made for evacuation in the case, admittedly -12 - unlikely, but possible. I'm not sure you all admit it's possible there's a major 13 that accident at Seabrook that would happen and students would have to 14 15 leave the area in some manner in order to avoid significant exposure. 16

17 But my question is and my comment is that in 2049 -- what kind of changes to the transportation 18 19 network might we have encountered or done or clogged-20 up highways or increased in numbers of housing, so that we might not be able to realistically get people 21 out of an area -- in the case of a crowded summer day 22 at Hampton Beach? So, I'm wondering -- are you taking 23 into account the increased construction, population 24 25 increase and whether or not roadways would be able to

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capably handle evacuation if an accident were to occur in 2049 -- a year before the projected end of this theoretical license extension? So, that's what I'd like to know.

5 I also would like to know -- it's probably not germane to the relicensing but -- Chernobyl cost 6 the Soviet Union \$360 billion. Fukushima has cost 7 \$200 billion. 8 The Price Anderson Act puts the 9 utilities on the hook for \$12 billion right now in 10 some sort of an escrow account. And we the taxpayers would be liable for any damages to property, land, 11 12 animals, farms, properties, etc., beyond that. So I'd like to know where that \$12 billion resides now and is 13 that even something one could count on if some sort of 14 15 accident occurs -- serious accident? Thank you.

BRIAN ANDERSON: Thank you, sir, for those comments.

The next speaker is Marcia Bowen --

MARCIA BOWEN: I'm going to decline myopportunity to speak tonight.

21 BRIAN ANDERSON: Okay. Thank you, Marcia. 22 And the last speaker that I have here is Doug Bogen. 23 DOUG BOGEN: If you don't mind, I want to 24 wait until they find a new battery for the camera 25 there.

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My name's Doug Bogen. I'm Executive Director of the Seacoast Anti-Pollution League based in Exeter, New Hampshire. I would like to make some kind of general comments and have a few specific ones, as well, about the Draft report. I will try to make different comments than what I made in the earlier session this afternoon, but I think they're no less pertinent and important.

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9 others have suggested tonight, As the 10 world has changed since Fukushima. Just as it changed after Three-Mile Island. 11 Just as after Chernobyl. 12 Yet, everything I read in this Environmental Statement seems to indicate that it's business as usual at the 13 I don't see any change of perspective. I don't 14 NRC. 15 see any greater consideration of the public interest. As we've heard from others, this just seems to be 16 17 business as usual. It's the same old story. Same dismissal of alternatives -- they don't seem to have 18 19 learned anything.

I should mention, for the record, we are 20 one of the interveners along with Beyond Nuclear, New 21 groups. 22 Hampshire Sierra Club and other Our 23 intervention is based on the National Environmental Policy Act, but we don't get the sense that the 24 25 writers of this report have picked up anything from

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what we've submitted. Even though these are many peer reviewed studies, on-the-ground actual projects -- but they don't seem to find their way into the report.

4 The facts are that you have zero actual 5 experience with commercial reactors older than 42years old. I looked it up. I don't think there's one 6 in this country that's older. In fact, in the whole 7 8 world, I don't believe there are any reactors that made it to 50-years. So, you have no experience with 9 10 real-world impacts on the environment past that age. 11 What we do know is that younger reactors have leaked 12 huge quantities of tritium into the groundwater --Seabrook among them. Seabrook was only nine-years old 13 when it started leaking tritium back in `99. For 12-1415 years now, they've been pumping the groundwater. Pumping out the leaking water just to put it out into 16 the ocean to dilute it. That doesn't sound like a 17 That sounds like pump and dilute and just 18 solution. 19 pushing the issue further offshore.

Younger reactors -- including Seabrook -have had chronic problems with the emergency diesel generators. This has certainly been seen as a greater concern after Fukushima and what happened with theirs and the need to be able to respond to difficult situations -- natural disasters, unnatural disasters.

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Younger reactors have had critical safety structures corroded almost to the point of failure.

3 This was recently covered in an AP series 4 and it ran in the local papers here, as well as around 5 the country. Younger reactors have ended their useful lives prior to reaching 40-years old and there have 6 been, I think, at least two-dozen reactors around the 7 country that didn't make it to 40, but everyone of 8 9 them are still storing their spent fuel on-site in vulnerable areas. Just in our neighborhood, we've got 10 Maine Yankee, Yankee Rowe, Connecticut Yankee, Haddam 11 12 Neck -- that are all just waiting for some day that fuel is going to be put somewhere else. This is the 13 This is the legacy that we leave to future 14 record. 15 generations. This is what you have as real-life experience. 16

17 Another point -- just looking at the power needs. There keeps being this reference to the need 18 19 for power -- I want to know where it's written that we 20 will always need 1,250 megawatts on the New Hampshire 21 seacoast, when it isn't even used on the New Hampshire seacoast or even in New Hampshire at all. 22 We have more than enough energy -- more than enough electrical 23 power in New Hampshire, even without Seabrook. 24 Ι 25 don't think that corporation was given an unlimited

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life -- perpetual power generation -- permission. We need to stop thinking that once they build it, it'll always be there.

4 In your comments tonight and in the report 5 itself -- page 8-42, you say that -- assuming that a need currently exists for the power -- but we're not 6 talking about current need, we're talking about need 7 8 decades into the future -- 20, 30, 40-years. So, what 9 does current power use have to do with it? It just 10 seems like we're just sort of saying -- Well, this is the way it is today and this is the way it's going to 11 12 be 30-years from now. That just doesn't make any It doesn't pass the laugh test. 13 I would sense. suggest that you at least amend that to 14 sav - -15 assuming that a need will exist in 2030. That would be at least a little bit more accurate, a little more 16 appropriate to the report. That should be the issue 17 here. 18

I'll say a little bit about tritium. 19 Ι did talk about it earlier tonight, but first off I 20 want to say it's in a few different sections in the 21 It's kind of hard to find out where all the 22 report. 23 tritium information is. I understand that you're referring to it as a kind of a new issue. Although, 24 25 again, it's been ongoing for at least a dozen years.

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One of the sections that talks about the other dewatering doesn't mention this new de-watering -- the 32,000 gallons per day -- in the Unit 2 foundation.

4 What is the total amount and why is this 5 considered acceptable? Do you expect it's going to Is it going to increase? Where are we at continue? 6 7 with the water there? Why can't they stop the leaks? 8 That sounds like an awful lot of water to be putting 9 into the ocean. Ι understand that the EPA out 10 regulation allows 20,000 picocuries per liter of 11 tritium in drinking water -- or that's the limit --12 but that doesn't mean that something under that is perfectly safe. In fact, many other countries have 13 much stricter standards. 14

15 Mv understanding is the state of California and the state of Colorado -- that would be 16 They've set standards more I 17 completely unacceptable. think around 500 or 400 picocuries per liter. 18 You 19 state in one part of the document that the levels of tritium in seawater were under 3,000 picocuries per 20 liter. I understand in salt water you can't test as 21 low as you can in freshwater, but if they're at 2,999 22 23 that again does not make it safe. That's still somewhere in 100 times greater than background levels 24 25 for tritium. Natural occurring tritium is in the

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single digits -- maybe up to double digits.

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So, even the EPA standard -- we're talking 1000 times more than the ambient levels in our environment. That just doesn't make sense. It doesn't sound safe to me. We all know now that there are no safe levels of radiation and I don't know how you can continue this idea that that's an acceptable level, when many other countries much of the science shows that's not enough.

10 So, I want to move on to some of the carbon emissions. I talked a bit about this earlier, 11 12 but I did want to point out, as well, that again as Mr. Gunter emphasized -- it doesn't seem like you 13 picked up much from the materials that we submitted in 14 15 our intervention petition. The cited studies that you list comparing carbon emissions from nuclear versus 16 17 carbon from other renewable energy sources -- just about everyone of those studies appears to be from the 18 19 International Atomic Energy Association, which we all 20 know has the double-purpose of both promoting and regulating nuclear power. So, I would suggest it 21 might be a little bit biased. 22

Why aren't there more independent studies? One in particular that we referred to in our petition from a researcher named Sovacool in 2008 -- that was a

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broad survey of previous existing studies. He concluded that nuclear power emits seven times more carbon dioxide than wind for a new plant. I believe it's five times more for an existing plant. Indeed, own information regarding Seabrook, in your you mentioned an average over five-years -- 24,000 tons of dioxide equivalent released just on-site. carbon That's not including the fuel, the transportation, construction and so forth. That's just on-site each year.

Just to put that in perspective, which 11 12 would be helpful in your report -- that's about 10% of the carbon emissions of one of the Schiller boilers --13 the 15-megawatt boiler -- the Schiller Plant being in 14 15 Portsmouth, New Hampshire -- just up the road. It's the equivalent -- the plant owners love to say how 16 17 many homes they can provide power to with their plant -- well, the carbon emissions from Seabrook alone on-18 19 site are the equivalent of the carbon emissions from 20 over 3,000 homes -- just from their power use -- or 4,000 homes for their overall carbon footprints. 21 Ι think that's pretty significant. I think people would 22 in 23 be surprised to know that -- that Seabrook, 24 particular, is not carbon-free, as is the whole 25 So, we'd like to see a little bit better industry.

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treatment of the relative impacts and of course that influences your whole decision about which types of power sources would be most environmentally sound.

4 We really have concern with the comparison 5 you make with the one you do look at -- the combined cycle gas and wind power combined versus nuclear. I'm 6 7 just mystified why you chose to look at - you 8 mentioned the idea of having five wind farms. Four of 9 which would be on land and one of which offshore. 10 Well, everything you've heard from other speakers 11 tonight and again in our petition shows that offshore 12 is the future. We don't need to be building as many farms onshore. I understand that's where Florida 13 Power and Light -- the parent company of NextEra --14 15 that's where they get their wind, where they're used to using it. 16

17 But that doesn't mean that's going to be the future. It just seems like an unfair comparison 18 19 and not really representative of future development. 20 So, I wonder whether you're just setting it up to That seems to be the way you present this. 21 fail? You say that's the only potentially viable project, but 22 23 you don't look at what would be the most then attractive -- the most environmentally sound approach 24 25 to that development. So, I would, if you can, I would

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like you to reconsider that choice -- take another look at those comparisons.

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I just have a few more points -- just 3 4 again talking about groundwater -- not so much the 5 tritium issue, but just the increases, particularly I talked earlier about the sea level under climate. 6 impacts on the site. Clearly with the existing 7 8 infiltration of the foundations leading to the ASR 9 problem -- there ought to be some projection. I know you make reference to some hydrological studies, but 10 it seems like again it deserves more than a sentence 11 12 or two about future infiltration. I think that's something we all want to know about. That's an 13 environmental impact on the plant. Even though I know 14 15 it's supposed to be addressed in other reports.

So, again, I think all of these things are worth consideration and I do hope that you will make some changes in the final version of your report. Thank you very much for your time.

BRIAN ANDERSON: Thank you, sir, for your comments. Was there anybody that signed up to speak tonight that I might have missed? I believe that everybody that registered to speak has had a chance to speak. Did I miss anybody?

Okay -- good. Thank you all again -- not

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just for providing your comments, but for taking time out of your personal lives to come be at this meeting to listen to the NRC staff and to share your thoughts and provide your comments on the NRC's review. I personally appreciate you taking the time to be here and providing your comments. On behalf of the NRC staff -- thank you for taking the time to be here.

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8 If you have any other questions or would like to have any further discussion with NRC staff --9 they will be available after this meeting. Like I 10 said earlier, this is not the only opportunity to 11 12 provide comments. The comment period remains open through October 26th. There's opportunity to provide 13 written comments electronically or in the mail. 14 So, with that --thank you all again for your time and 15 please travel safely tonight. Have a great night. 16 This meeting's adjourned. Thank you. 17

18 (Whereupon, at 8:53 p.m., the public 19 meeting was closed.)

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