

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

+ + + + +

- - - - - -x

IN THE MATTER OF: :

PUBLIC SCOPING MEETING

:

FOR

:

PILGRIM NUCLEAR POWER STATION :

- - - - - -x

Evening Meeting

Wednesday

May 17, 2006

Ballroom

Radisson Hotel Plymouth

180 Water Street

Plymouth, Massachusetts

The above-entitled matter was convened,
pursuant to Notice, at 7:05 p.m.

Neal R. Gross & Co., Inc.
Washington, D.C.
(202) 234-4433

1 BEFORE: Chip Cameron
2 Rani Franovich
3 Robert Schaaf

Neal R. Gross & Co., Inc.
Washington, D.C.
(202) 234-4433

1	<u>I N D E X</u>	
2	<u>SPEAKER:</u>	<u>PAGE:</u>
3	Chip Cameron	4
4	Rani Franovich	8
5	Robert Schaaf	16
6	Sheila Hollis	24
7	Susan Uttal	27
8	Andre Martecchini	29
9	Mary Lampert	30
10	Sarah Thatcher	31
11	Tamara Race	34
12	Mathew Briggs	35
13	Ram Subbaratnam	36
14	Peter Roveto	37
15	David Agnew	39
16	P.T. Kuo	33
17	Ron Millican	34
18	Diane Turco	50
19	Trish Milligan	51
20	Mary Ellen Burns	52
21	Jeff Berger	55
22	Becky Chin	58
23	Peter Curley	68
24	Joyce McMahon	69
25	Arthur Powers	74

I N D E X

2	<u>SPEAKER:</u>	<u>PAGE:</u>
3	Leonard Curcuru	77
4	William Stone	78
5	Sandra Woods	74
6	Janet Humes	75
7	Bob Smith	76
8	Jerry Benezra	80
9	Richard Emch	88
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

P R O C E E D I N G S

(7:05 p.m.)

MR. CAMERON: Good evening, everyone. My name is Chip Cameron and I am the Special Counsel for Public Liaison at the Nuclear Regulatory Commission, the NRC, we'll be using that acronym tonight. And I would like to welcome you to the NRC's public meeting tonight. Our subject is the environmental review that the NRC conducts as one part of its evaluation of a license application that we received from Entergy to renew the operating license at the Pilgrim Plant, and it's my pleasure to serve as your facilitator tonight and, in that role, I'll try to help all of you to have a productive meeting.

I just want to cover a few items on meeting process before we get started so that you'll know what to expect tonight and I would like to talk about, first, the format for the meeting. Secondly, some very simple ground rules and, thirdly, to introduce the NRC speakers who will be giving you some background on license renewal.

In terms of the format for tonight's meeting, it's going to be a two-part format. In the first part of the meeting, we are going to give you some background information on the NRC's license

1 renewal process, generally, and specifically on the
2 environmental review part of that license renewal
3 process so that you have some information to know what
4 is going to be going on, what we look at.

5 The second part of the meeting is our
6 opportunity to listen to all of you, to listen to some
7 formal comments that you might have on the license
8 renewal process and specifically on the environmental
9 review. The NRC staff is going to tell you that this
10 is a scoping meeting and scoping is a term that's used
11 in connection with the preparation of environmental
12 impact statements.

13 Basically, the scoping process is designed
14 to help the NRC determine what should be within the
15 scope of this environmental impact statement, what
16 issues should be looked at, what alternatives should we
17 evaluate. And we are going to be taking written
18 comment on these issues and the staff will tell you
19 more about that, but we wanted to be here tonight with
20 you in person to hear your comments, and anything that
21 we hear tonight will have the same weight as written
22 comments.

23 In terms of ground rules for the meeting,
24 we will have a short question session after the NRC
25 presentations to see if we've explained things clearly

1 and, if you have a question, signal me and I'll bring
2 you this cordless microphone, and please introduce
3 yourself to us and we'll try to answer your question.
4 I would ask everyone to try to be brief with your
5 questions and when we are in the question period, to
6 confine that to questions. If you have a comment,
7 you'll have an opportunity to make it during the
8 comment part of the meeting.

9 I would also ask that only one person
10 speak at a time so that we could give our full
11 attention to whomever has the floor at the moment and
12 so that our court reporter, Marty Farley, can get a
13 clean transcript so he'll know who is speaking at the
14 time. When we get to the formal comment period, I'm
15 going to set a guideline of five minutes for a
16 presentation, and five minutes is enough time to
17 summarize your main points.

18 If you want to elaborate on them, you can
19 submit a written comment to us, and it also does two
20 important things, one, it alerts the NRC staff to
21 issues that we should start thinking about right away,
22 tonight, and possibly getting an opportunity to talk to
23 you in more detail about those issues. The second
24 important thing it does is it alerts everybody else in
25 the audience to what the concerns are, and I just would

1 ask you to be courteous and respect other people's
2 opinions. You are going to hear opinions tonight that
3 you may not agree with and let's just extend courtesy
4 to everyone.

5 And let me introduce the NRC speakers to
6 you. First of all, we are going to go to Rani
7 Franovich, who is right here, and Rani is the chief of
8 the environmental review section in our license renewal
9 program, and she and her staff are responsible for
10 doing the environmental reviews on all of the
11 applications that we receive for license renewal. And
12 she has had a varied career at the NRC, she has been
13 with us for about 15 years. She was a resident
14 inspector at the Catawba Nuclear Power Plant in South
15 Carolina and we have resident inspectors at all of our
16 reactors to make sure that the licensee complies with
17 our regulations, and Rani will talk a little bit more
18 about that later on.

19 She has also served as the project manager
20 for various license renewal applications, on the safety
21 evaluation, and she has been the coordinator, the
22 enforcement coordinator, in our Office of Nuclear
23 Reactor Regulation to determine what compliance
24 measures should be taken against licensees who have not
25 followed the NRC regulations. She is from that famous

1 university, Virginia Tech, and she has a bachelor's
2 degree in psychology and a master's degree in, what is
3 it, industrial and systems engineering, also from
4 Virginia Tech. She is going to give you an overview of
5 license renewal and then we are going to go to the
6 environmental review, specifically, and Mr. Bob Schaaf
7 is right here, he is going to do that for you.

8 He is the project manager on the
9 environmental review for this renewal application and
10 Bob has also been with us for about 15 years, working
11 in one of the NRC regional offices. He was a project
12 manager for a number of operating reactors and also the
13 project manager on the environmental reviews for other
14 license renewal applications, and he has a bachelor's
15 degree in mechanical engineering from Georgia Tech.

16 And with that, I would just thank all of
17 you for being with us tonight, to help us with this
18 project, and we are going to go to Rani first, and then
19 to Bob, and we'll just go through their presentations
20 and we'll open it up for questions. Thank you.

21 Rani?

22 MS. FRANOVICH: I just want to take a
23 minute to thank you all for being here, this is a very
24 important part of our review process, seeking input
25 from the local community is important to us because the

1 local community has insights that we can't necessarily
2 always glean out of data and the Internet, so thank you
3 for coming, taking time out of your busy schedules and
4 spending some time with us tonight.

5 I hope the information we provide this
6 evening will help you understand the process we are
7 going to go through with license renewal help you
8 understand the role that you can play in helping us
9 make sure that the environmental impact assessment we
10 prepare for Pilgrim license renewal is accurate.

11 The next slide, please.

12 I would like to start off by briefly going
13 over the purpose of tonight's meeting. We'll explain
14 the NRC's license renewal process for nuclear power
15 plants with emphasis on the environmental review
16 process, and we'll talk about typical areas included in
17 our environmental review. We also will share with you
18 the license renewal review schedule, then really the
19 most important part of today's meeting is for us to
20 receive comments you may have on the scope of our
21 environmental review. We also will give you some
22 information about how you can submit comments to us on
23 the scope of the review outside this meeting.

24 At the conclusion of the staff's
25 presentation, we will be happy to answer any questions

1 that you may have on the process and the scope.
2 However, I must ask you to limit your participation to
3 questions only and hold your comments until the
4 appropriate time in tonight's meeting. Once all
5 questions are answered, we can begin to receive any
6 comments you have on the scope of our environmental
7 review.

8 Next slide, please.

9 Before I get into a discussion of the
10 license renewal process, I would like to take a minute
11 to talk about the NRC in terms of what we do and what
12 our mission is. The Atomic Energy Act is the
13 legislation that authorizes the NRC to issue operating
14 licenses. The Atomic Energy Act provides for a 40 year
15 license term for power reactors, this 40 year term is
16 based primarily on economic considerations and
17 antitrust factors, not on safety limitations of the
18 plant. The Atomic Energy Act also authorizes the NRC
19 to regulate the civilian use of nuclear materials in
20 the United States.

21 In exercising that authority, the NRC's
22 mission is threefold, to ensure adequate protection of
23 public health and safety, to promote the common defense
24 and security and to protect the environment. The NRC
25 accomplishes its mission through a combination of

1 regulatory programs and processes, such as conducting
2 inspections, issuing enforcement actions, assessing
3 licensee performance and evaluating operating
4 experience from nuclear plants across this country as
5 well as internationally. The regulations that the NRC
6 enforces are contained in Title 10 of the Code of
7 Federal Regulations, which is commonly referred to as
8 10 CFR.

9 Next slide, please.

10 As I've mentioned, the Atomic Energy Act
11 provides for a 40 year license term for power reactors.
12 Our regulations also include provisions for extending
13 plant operation for up to an additional 20 years. For
14 Pilgrim, the operating license will expire June 8,
15 2012. Entergy has requested license renewal for
16 Pilgrim. As part of the NRC's review of the license
17 renewal application, we will perform an environmental
18 review to look at the impacts on the environment of an
19 additional 20 years of operation.

20 The purpose of this meeting is to give you
21 information about the process and to seek your input on
22 what issues we should consider within the scope of our
23 review.

24 Next slide, please.

25 The NRC's license renewal review is

1 similar to the original licensing process in that
2 involves two parts, an environmental review and a
3 safety review. This slide really gives a big picture
4 of the license renewal process, which involves these
5 two parallel paths. I'm going to briefly describe
6 these two review processes, starting with the safety
7 review.

8 Next slide, please.

9 Two guiding principles form the basis of
10 the NRC's approach in performing its safety review.
11 The first principle is that the current regulatory
12 process is adequate to ensure that the licensing basis
13 of all currently operating plants provides and
14 maintains an acceptable level of safety with the
15 possible exception of the effects of aging on certain
16 structures, systems and components. The second
17 principle is that the current plant specific licensing
18 basis must be maintained during the renewal term in the
19 same manner and to the same extent as during the
20 original license term.

21 Next slide, please.

22 You might ask what does the safety review
23 consider? For license renewal, the safety review focus
24 on aging management of systems, structures and
25 components that are important to safety, as determined

1 by the license renewal scoping criteria contained in 10
2 CFR, Part 54. The license renewal safety review does
3 not assess current operational issues such as security,
4 emergency planning and safety performance. The NRC
5 monitors and provides regulatory oversight of these
6 issues on an ongoing basis under the current operating
7 license. Because the NRC is addressing these current
8 operating issues on a continuing basis, we do not
9 reevaluate them again in license renewal.

10 Next slide, please.

11 As I have mentioned, the license renewal
12 safety review focuses on plant aging and the programs
13 that the licensee has already implemented or will
14 implement to manage the effects of aging. Let me
15 introduce Mr. Ram Subbaratnam, the safety project
16 manager. Ram is in charge of the staff safety review.
17 The safety review involves the NRC staff's evaluation
18 of technical information that is contained in the
19 license renewal application, this is referred to as the
20 safety evaluation. The NRC staff also conducts audits
21 as part of its safety evaluation. There is a team of
22 about 30 NRC technical reviewers and contractors who
23 are conducting the safety evaluation at this time.

24 The safety review also includes plant
25 inspections, the inspections are conducted by a team of

1 inspectors from both NRC headquarters and the Region
2 One office in King of Prussia, Pennsylvania.

3 A representative from our inspection
4 program is here today, the senior resident at Pilgrim
5 is Bill Raymond.

6 Bill, could you stand, please?

7 As Chip mentioned, we have resident
8 inspectors at all of the plants across the country.
9 Bill is the senior resident at Pilgrim, he lives in the
10 community and works at the plant 40 hours a week, he
11 and another inspector. They are the eyes and the ears
12 of the agency, they are there to make sure that NRC
13 regulations are complied with at all times.

14 The staff documents the results of its
15 review in a safety evaluation report, that report is
16 then independently reviewed by the Advisory Committee
17 on Reactor Safeguards or the ACRS. The ACRS is a group
18 of nationally recognized technical experts that serve
19 as a consulting body to the Commission. They review
20 each license renewal application and safety evaluation
21 report, they form their own conclusions and
22 recommendations on the proposed or requested action and
23 they report those conclusions and recommendations
24 directly to the Commission.

25 Next slide, please.

1 This slide illustrates how these various
2 activities make up the safety review process. I would
3 like to point out that these hexagons on the slide,
4 these yellow symbols here, these represent
5 opportunities for public participation. Also, the
6 staff will present the results of its safety review to
7 the ACRS and that presentation will be open to the
8 public.

9 Next slide, please.

10 The second part of the review process
11 involves an environmental review with scoping
12 activities and the development of an environmental
13 impact statement. As I've said, we are here today to
14 receive your comments on the scope of that review, we
15 will consider any comments on the scope that we receive
16 at this meeting or in any written form. Then, in
17 December, we will expect to issue the draft
18 environmental impact statement for comment.

19 Next slide, please.

20 So, the final agency decision on whether
21 or not to issue a renewed operating license depends on
22 several inputs, inspection reports and a confirmatory
23 letter from the Region One Administrator, conclusions
24 and recommendations of the ACRS which are documented in
25 a letter to the Commission, the safety evaluation

1 report which documents the results of the staff's
2 safety review and the final environmental impact
3 statement which documents the results of the staff's
4 environmental review.

5 Again, the yellow hexagons on the slide
6 indicate opportunities for public participation, an
7 early opportunity is during the scoping meeting
8 tonight. The meeting on the draft EIS is another
9 opportunity. At this time, there is still an
10 opportunity to request a hearing, that opportunity
11 remains open through May 27th. As I mentioned, the
12 ACRS meetings also are open to the public.

13 Before I turn the presentation over to Bob
14 Schaaf, I would like to mention a change in the staff's
15 review team. Bob has been the environmental project
16 manager for Pilgrim up until this time. However, he is
17 assuming new responsibilities and is turning the
18 project over to Alicia Williamson.

19 Alicia, could you please stand?

20 Alicia is the new project manager for
21 Pilgrim, she will take this project to the finish
22 line.

23 And now Bob will discuss the environmental
24 review in more detail.

25 MR. SCHAAF: Thank you, Rani.

1 Again, my name is Bob Schaaf, I'm the
2 Environmental Project Manager for the Pilgrim license
3 renewal application review. I'm going to spend the
4 next 15 minutes or so discussing the environmental
5 review process and how the public can participate in
6 that process. The National Environmental Policy Act of
7 1969, or NEPA, requires that federal agencies follow a
8 systematic approach in evaluating potential
9 environmental impacts associated with certain actions.
10 We are required to consider the impact of the proposed
11 action and to consider mitigation for impacts that we
12 consider to be significant.

13 We are also required to consider the
14 impacts of alternatives to the proposed action, in this
15 case, license renewal. Alternatives include the no
16 action alternative. In other words, not renewing the
17 license, as well as construction and operation of
18 replacement power generating facilities and other
19 alternatives for replacing the lost generation, such as
20 conservation efforts.

21 The NEPA process requires development of
22 an environmental impact statement, or EIS, for any
23 proposed action that may significantly effect the
24 quality of the human environment. NEPA and our
25 environmental impact statement are disclosure tools,

1 they are specifically structured to involve the public
2 in the process, this meeting is a part of that effort
3 to involve the public in our environmental review.
4 Specifically, we are here to gather information on the
5 scope of our review, as Chip mentioned earlier. In
6 other words, what special issues should the staff
7 consider for the proposed Pilgrim license renewal.

8 The Commission has determined that an
9 environmental impact statement will be prepared for the
10 proposed renewal of nuclear power plant licenses. The
11 NRC staff developed a generic impact statement for
12 license renewal, referred to as the GEIS, that
13 identifies a number of issues common to all nuclear
14 plant license renewals. The staff is supplementing
15 that generic impact statement with a site specific
16 impact statement, or SEIS, that will address issues
17 that are specific to the Pilgrim site.

18 Now I would like to provide a little more
19 information about the GEIS. The generic environmental
20 impact statement for license renewal, also known as
21 NUREG-1437 or the GEIS, identified 92 environmental
22 issues that are evaluated for license renewal. On the
23 left side, 69 of these issues are considered generic,
24 or category one, which means that the impacts are
25 similar for all reactors or for all reactors with

1 certain features, such as plants that have cooling
2 towers. Only certain issues addressed in the GEIS are
3 applicable to Pilgrim. For example, GEIS issues
4 related to cooling towers are not be applicable because
5 the plant does not use cooling towers.

6 For those category one issues that are
7 applicable to Pilgrim, we will assess whether there is
8 any new information related to the issue that might
9 effect our conclusion reached in the GEIS. If there is
10 no new information, then the conclusions of the GEIS
11 are adopted for Pilgrim. If new information is
12 identified and determined to be significant, then a
13 site specific analysis will be performed for that issue
14 and identification of new and significant information
15 is one area where public participation, during scoping,
16 is particularly important.

17 Of the remaining 23 issues, down the
18 center column, 21 are referred to as category two,
19 indicating that the NRC staff found that a site
20 specific analysis is needed to determine the potential
21 impacts. For example, potential impacts to threatened
22 and endangered species need to be evaluated for each
23 site because the species present will differ from one
24 site to another. The remaining two issues,
25 environmental justice and potential chronic effects of

1 transmission line electromagnetic fields, were not
2 categorized in the GEIS and a site specific analysis is
3 needed for these issues, so a site specific analysis
4 will be performed for all category two and
5 uncategorized issues that are applicable to Pilgrim.

6 Finally, down the right side, the NRC
7 staff will look for potential new issues that were not
8 identified in the GEIS. Identification of potential
9 new issues is another area where public participation,
10 during scoping, is important in helping us identify
11 issues. This slide shows the NRC's decision standard
12 for the environmental review for license renewal. To
13 paraphrase, we are trying to determine whether the
14 environmental impacts of license renewal are great
15 enough that license renewal for Pilgrim would be
16 unreasonable. In other words, is license renewal
17 acceptable from an environmental perspective?

18 This slide lists important milestone dates
19 for our environmental review, the highlighted dates
20 indicate opportunities for public involvement in the
21 review. Our *Federal Register* notice of intent to
22 prepare an environmental impact statement and conduct a
23 scoping process started the scoping period for our
24 review. Again, the purpose of scoping is to scope out
25 or define the bounds of the environmental review. As I

1 noted previously, we are especially interested in
2 identifying any potential new and significant
3 information and any potential new issues. This meeting
4 is a part of the scoping process, comments from the
5 public, again, are an important tool in helping us
6 define the scope of the review.

7 The meeting is being transcribed and
8 comments provided here carry the same weight as written
9 comments submitted to the NRC. Written comments can
10 also be submitted to the NRC through June 16, 2006, as
11 indicated on the schedule.

12 Following the scoping period, the staff
13 will review the comments and issue what we call a
14 scoping summary report, which is scheduled to be issued
15 in August of this year, and that will address all of
16 the comments we have received during the scoping
17 period. We anticipate publishing the draft impact
18 statement in December of this year and we will provide
19 an opportunity for public comment on that draft. We
20 also plan to have another meeting here in January of
21 next year to receive comments on the draft.

22 Once the comment period closes, we will
23 develop the final supplemental impact statement, which
24 we expect to publish in August of next year. If you
25 would like a copy of any of these reports, please be

1 sure and leave your name and mailing address at the
2 registration desk, either on a blue card or on a yellow
3 card, if you plan to provide comments this evening. At
4 this point, again, we are in the process of gathering
5 information needed to prepare the draft impact
6 statement. As indicated here, we rely on a range of
7 information sources.

8 Two weeks ago, members of the staff and a
9 team of contracted environmental experts conducted an
10 environmental audit to help us gather information. In
11 addition to meeting with the applicant, and observing
12 conditions at the site and reviewing reference
13 documents used by the applicant in preparing their
14 environmental report, members of our team also met with
15 local, state and federal agencies to gather
16 information. Comments provided at this meeting and
17 written comments submitted by June 16th will also
18 inform our review.

19 Our team looks at a wide range of
20 environmental impact areas, some of the areas
21 considered include air quality, water quality and
22 potential effects on plants, wildlife and people living
23 in the vicinity of the plant. We also consider
24 environmental justice, which focuses on whether there
25 are minority or low income populations that may be

1 disproportionately impacted by the proposed license
2 renewal. This slide provides contact information, in
3 case you have additional questions after today.

4 Alicia and I are the designated points of
5 contact at the NRC for the environmental portion of the
6 license renewal review and, as noted earlier, Ram is
7 the project manager for the aging management portion of
8 the review. His contact information is available on
9 our Website.

10 Although our phone numbers are provided
11 here, we still need to get your specific comments
12 regarding the environmental review in some form that we
13 can document, either in writing or, as Chip has
14 indicated, through oral comments given at this
15 transcribed meeting.

16 Arrangements have been made for the
17 documents associated with our environmental review to
18 be available locally. The Plymouth Public Library, the
19 Kingston Public Library and the Duxbury Free Library
20 have all been kind enough to make some shelf space
21 available for documents related to our review. Also,
22 documents are available through our document management
23 system, which can be accessed on our internet home
24 page, and the draft and final impact statements will be
25 posted on the license renewal Web page.

1 After this meeting, comments can be
2 submitted by mail, by e-mail or in person at NRC
3 headquarters. Specific written comments can be
4 addressed via mail or e-mail at the addresses shown
5 here and, although not too many people take advantage
6 of the option, comments can be delivered in person, if
7 you happen to be in the Rockville area.

8 That concludes the formal presentation. I
9 would also like to add my thanks for your coming out
10 tonight to hear our presentations and to provide us
11 with your comments. We received a number of very, very
12 good comments this afternoon, in the afternoon session,
13 that we will be considering in our review.

14 MR. CAMERON: Great, thank you, Bob.
15 Thanks, Rani.

16 We do have time for some questions on the
17 process, if anybody has a question about what you
18 heard. Yes, ma'am? And please just introduce yourself
19 to us.

20 MS. HOLLIS: Sheila Hollis.

21 My question relates to the
22 interrelationship between the scoping and the EIS
23 process, as opposed to the intervention and request for
24 hearing process on the non-environmental issues, how
25 they relate to one another and once they come together,

1 at the end, in the relicensing decisional process.

2 MR. CAMERON: Good question.

3 MR. SCHAAF: Well the scoping comments and
4 the scoping period, which is open until June 16th, will
5 inform the environmental review and provide us
6 additional information in drafting our supplemental
7 impact statement. Separately, a notice for opportunity
8 for hearing was published in the *Federal Register*
9 related to the application and that opportunity for
10 hearing closes around, it's May 27th and that is a
11 separate process, which was indicated in the slides
12 that Rani presented, where there is an opportunity for
13 hearing.

14 The impact, the draft, the final impact
15 statement, the safety evaluation report, will be inputs
16 to a hearing process, if a hearing is granted. It's a
17 separate process with separate deadlines. The hearing
18 is one input to the final agency decision, the
19 supplemental impact statement would be another input to
20 a final agency decision.

21 MR. CAMERON: So that, as Bob implied, if
22 there is a hearing, environmental as well as safety
23 issues can be subjects for the hearing, and does that,
24 is that clear to you, Ms. Hollis, or do you need some
25 more clarification on that?

1 MS. HOLLIS: I understand that the process
2 is there, but I was interested in how it comes together
3 and whether one must, in order to fully participate in
4 the environmental issues, ask for a hearing, versus if
5 you wanted to have a hearing on non-environmental
6 issues. Is that, do those processes ultimately meet
7 together at the NRC decision table on the decision to
8 relicense, and all the considerations at the same time?
9 And do you have to be active in both?

10 MR. SCHAAF: I think that your answer to
11 the last question is no, it is possible for someone to
12 file a petition for hearing, and not provide comments
13 on scoping and carry through in the hearing process.
14 Alternatively, an individual could provide scoping
15 comments and not wish to be party to a hearing, and
16 those would be considered.

17 MR. CAMERON: And I may ask Susan Uttal
18 from our Office of General Counsel if she wants to add
19 anything on here but, if there is no hearing, the
20 environmental review, the safety review, the
21 inspection, the ACRS review all come together and are
22 considered in making the decision on license renewal.
23 Those same things occur even if there is a hearing, but
24 a hearing puts a finer point on the whole process.

25 Do you want to explain that to us, Susan?

1 MS. UTTAL: Susan Uttal from the Office of
2 General Counsel in the NRC. The hearing process is
3 separate from the staff review. What happens there is
4 that a person or an organization will ask for
5 intervention and present the issues, the specific
6 issues that they want to be heard. Now the issues do
7 not encompass everything that's in the review, they
8 will be pinpointed to the specific areas of interest,
9 and the hearing will be held before a three-judge
10 independent panel. Now the three judges work for the
11 NRC but they are independent of the staff and their
12 decision is made independent of the staff.

13 They will review all the materials that
14 are submitted to them by the parties on the issues that
15 are admitted for adjudication. If no hearing is
16 requested, then the hearing panel does not pass on any
17 issues involved in the license renewal evaluation but,
18 if a hearing is requested, the licensing board will
19 only pass on those issues that are presented to it and
20 that are admitted for adjudication in the hearing.

21 MR. CAMERON: And as Susan noted, the
22 hearing will focus on specific issues, rather than the
23 entire staff review, but those issues could be
24 environmental issues or they could be safety issues.
25 Okay, is that helpful? Sort of?

1 MS. HOLLIS: If the environmental issues
2 end up in a hearing, is there an appellate, what's the
3 appellate process, if one does not, if a party does not
4 feel like their environmental issues are resolved? And
5 also, if their issues are not resolved, could you
6 please explain the appellate process on the safety
7 issues?

8 MR. CAMERON: Go ahead, Susan.

9 MS. UTTAL: The process is the same. Once
10 a matter goes before a panel, a three-judge panel, for
11 hearing, if a party is not satisfied with the decision
12 of the panel on the issues, they can appeal to the
13 Commission, the Commission will determine whether to
14 take review. If it does or doesn't and you, a person
15 is not, a party is not satisfied with the Commission's
16 disposition, then you can take it to the court of
17 appeals in the federal system.

18 MR. CAMERON: --the NRC appellate process
19 and just so it's clear, because I keep hearing perhaps
20 a little confusion, is that the hearing will encompass
21 both environmental and safety issues, there is not, the
22 hearing is not only for safety issues. All right,
23 great.

24 Thank you, Susan, very much.

25 Thanks, Bob.

1 Let's go to Andre and please introduce
2 yourself to us.

3 MR. MARTECCHINI: Andre Martecchini,
4 Selectman from the Town of Duxbury. I have a question
5 in terms of process. If the, I surmise that there are
6 going to be some comments that might involve studies, a
7 little bit longer term studies or requests to scope
8 that. If you have a deadline that you are going to
9 have a draft or at least your milestone says a draft
10 milestone of December of '06, which is seven months
11 away or whatever, how, if you have some longer term
12 issues that maybe need a little bit more study, how do
13 you deal with that?

14 MR. SCHAAF: Well in conducting the
15 review, we don't Commission additional environmental
16 studies, we gather the data that is available, we have
17 engaged the National Marine Fishery Service, the
18 Massachusetts Department of Marine Fisheries, for
19 example, for issues related to impacts to aquatic
20 ecology, and some other sources of information on the
21 state of the resource. The facility itself actually
22 does monitoring as well of their impacts, what they are
23 drawing into the plant.

24 We look at the available data, we look at,
25 depending upon the issue, if there it some regulatory

1 structure in place or existing mitigation which is in
2 place to minimize impacts. We take all of the
3 information that is available into account and come to
4 our best conclusion on what the impact is in that area,
5 but we don't, we don't engage new studies.

6 MR. CAMERON: If there were an issue that
7 we felt need to be explored in further detail in order
8 to make a decision, would we, would we engage in extra
9 effort? I think that's perhaps what Andre is
10 interested in.

11 MR. SCHAAF: I think we would look to what
12 information was available. I mean we might have to
13 consider whether there would be some impact to the
14 schedule but, generally, what we are looking for is
15 what is the information available on the impact of the
16 facility.

17 MR. CAMERON: Okay, Mary?

18 MS. LAMPERT: Going back to the previous
19 question, just looking at the dates, that May 27th, the
20 motion to intervene, is due. We don't know whether a
21 contention will be accepted or not and there is a
22 definite track and time period. However, on June 16th,
23 the comment period closes, so I guess to cover bases,
24 your advise would be that, in essence, we have to
25 submit to both, if we have an issue that has

1 environmental impact?

2 MR. SCHAAF: It's not necessary but I
3 think it, I guess I would consider it to be prudent.
4 If you've got a concern that you want us to consider in
5 the environmental review, then I would recommend that
6 you submit it to us as a comment for scoping.

7 MR. CAMERON: And the way that, and Susan,
8 correct me on this, okay, if I'm wrong, but the amount
9 of information, the type of information, the format
10 that the information is in is going to be different for
11 the request for intervention than it is comments on the
12 environmental, on the scoping issues, correct? Okay.
13 Let's go over here.

14 MS. THATCHER: I just think it would be a
15 clarification for people who are in the environment, we
16 happen to be from Cape Cod, where people can come, who
17 have done a fair amount of study on this issue over the
18 years, can come and voice their fears and what this
19 means in an enormous, let's see 26 years. I think
20 where we are concerned on Cape Cod is the safety issue
21 of your spent fuel pool. Now where can regular people
22 come in, not hearing all these dates, where would the
23 best place for people who have spent a lot of time
24 looking and doing research and feel that they need to
25 have a forum where they can say this is a pretty scary

1 situation?

2 And with all this technical stuff that we
3 are hearing now, the impact of this and that, we are
4 not hearing what the real heartfelt fright of us who
5 have children, and children, grandchildren and great
6 grandchildren. I think we need a forum where things
7 are a little less formal and where just people who are
8 neighbors of the plant really want to hear about
9 protections, about what that spent fuel pool is going
10 to do in the next 26 years, with no place to take
11 stuff, so I think that's what I want to hear.

12 MR. CAMERON: Okay, thank you.

13 Rani, I've, why don't you answer and then
14 I might have a suggestion in terms of what this lady is
15 looking for, but go ahead.

16 MS. FRANOVICH: When it comes to spent
17 fuel that's located in the fuel pool, the fuel pool is
18 one of those structures that is within the scope of
19 license renewal, so is it examined in so far as the
20 effects of aging are addressed. When it comes to spent
21 fuel that's not in the pool, and I'm not aware of any
22 dry cast storage at Pilgrim, then the issues would be
23 beyond the scope of the license renewal review, if they
24 are not related to aging, and there are several options
25 available to members of the public. You could petition

1 for rulemaking, if you feel that the NRC's regulations
2 do not adequately cover safety of the spent fuel pools,
3 or you could, on the safety side, if you feel like
4 there is an aging issue that is not being addressed by
5 the staff, then you could request hearing on that
6 concern.

7 MR. CAMERON: I think she was talking
8 about using spent fuel as an example but talking about
9 basic concerns of people who live near the plant, in
10 some informal way, where they can express those
11 concerns, and certainly you can express those concerns
12 at this meeting. When we have the draft environmental
13 impact statement meeting, you could express those
14 concerns and, occasionally, the staff will just sit
15 down, informally, with people and perhaps talk to them
16 about issues, and I guess I would just ask Rani and her
17 staff to take that possibility under advisement so that
18 you would have that forum.

19 MS. FRANOVICH: And certainly the staff
20 will be available after the public meeting to meet with
21 members of the public.

22 MR. CAMERON: Okay, let's go over here and
23 please introduce yourself.

24 MS. RACE: My name is Tamara Race. And in
25 answer to your question, I have been involved in

1 several issues across the country like this and, in
2 answer to your question, one of the things that you
3 might do is write those findings and submit them as a
4 comment to the scope or to the scoping. Also, it's
5 very helpful when draft environmental statements are
6 issued, there are times when you can submit again any
7 studies you have performed, any research you have done
8 that you would like to submit and make part of the
9 record.

10 That can be done as part of your public
11 comment process, as well as some of the things that
12 Chip has so ably represented to you, there are a lot of
13 options under public participation strategies that the
14 NRC have and most federal agencies will have that allow
15 you to function as a proponent of a particular either
16 opinion or of a particular study. I have certainly
17 myself submitted opinions and studies that have been
18 supported as comments, versus just as a personal
19 opinion, so you may want to think about submitting it
20 like that as well and they will be considered, I'm
21 pretty sure.

22 MR. CAMERON: Thank you, Tamara.

23 And I guess, for the record, could we get
24 your name, ma'am?

25 MS. THATCHER: Sarah Thatcher, from

1 Dennis, Cape Cod.

2 MR. CAMERON: Sarah Thatcher.

3 Other questions? Yes, sir?

4 MR. BRIGGS: Hi. My name is Matthew
5 Briggs and I live in close physical proximity to the
6 plant and I was wondering if you could give me the feel
7 for the total number of NRC inspectors that are
8 involved in inspecting the facility, both right at
9 Pilgrim, as you go through this, and back at the NRC
10 offices when the field work is complete.

11 MS. FRANOVICH: I can give it a shot and,
12 if I miss the mark, Bill Raymond can correct me.

13 There are two inspectors assigned to work
14 at Pilgrim 40 hours a week, they spend five to seven
15 years, typically, at a site and then they move on to
16 another site but, at all nuclear power plants in the
17 country, we have at least two inspectors. For
18 multi-unit sites, three unit sites, we may have as many
19 as three. The regional office, Region One is in King
20 of Prussia, Pennsylvania and they have what we consider
21 experts in certain specific areas. There may be expert
22 health physicists, expert materials examiners,
23 materials inspectors who come out to the site on
24 periodic intervals and conduct special inspections that
25 are part of the baseline inspection program.

1 And basically, the inspection programs,
2 the reactor oversight program has a number of
3 inspections, some actually look at processes, like
4 corrective action programs, problem identification and
5 resolution. So the NRC is, I can't give you a number,
6 precisely, but I would say, in the course of a year,
7 you could have 15-20 NRC inspectors visit that plant,
8 above and beyond the inspectors that are assigned
9 there.

10 Does that answer your question?

11 MR. BRIGGS: I think it does, as far as
12 routine visits, but I am also interested in their
13 presence for the license renewal process, how many
14 additional inspectors are involved in the additional
15 work that's done?

16 MS. FRANOVICH: Between the NRC staff and
17 contractors, Ram, would you say seven to nine
18 inspectors?

19 MR. SUBBARATNAM: Yeah. The team of
20 inspectors--

21 MR. CAMERON: Let me get this on the
22 record for us, okay? And please introduce yourself to
23 us.

24 MR. SUBBARATNAM: They will come in and be
25 doing inspections during the process of, under a six or

1 seven month effort. So there will be more than one
2 opportunity for inspectors to come in, walk through the
3 plant, look at specific issues, address them and then
4 document them in the inspection reports. At the end of
5 all the inspection, one of the process requirements is
6 to have, your final regional administrator's approval
7 letter saying that there is satisfactory inspection has
8 been completed, specifically applicable to the license
9 renewal will be required. That is the process which is
10 the process to do it, so there will be more than two or
11 three inspections dedicated to the license renewal
12 process.

13 MR. CAMERON: Thanks, Ram.

14 Does our resident, do you want to add
15 anything? All right, does that give you an idea?

16 MR. BRIGGS: Yes, it does.

17 MR. CAMERON: Other questions before we go
18 into the comment? Yes, sir?

19 MR. ROVETO: My name is Peter Roveto, I
20 live in Duxbury.

21 Just a process question. Did I understand
22 that you've got a safety process and you've got an
23 environmental impact process and you do not take the
24 operating record of the plant into account in the
25 renewal at all? And why is that so?

1 MR. CAMERON: Okay and, of course,
2 operating record could encompass environmental or
3 safety issues, so the question is how does the
4 operating experience of the plant play into license
5 renewal?

6 MS. FRANOVICH: Well I think the question
7 may be a little different from that, Chip. Is the
8 question, you know, if they have current performance
9 issues, why is that not considered for license renewal?
10 Okay, 10 CFR, Part 50 are the regulations that govern
11 current operation. They are required to meet those
12 regulations today, so the resident inspectors, the
13 inspectors from the regional office and, even at
14 headquarters, we hold the applicant or the licensee
15 accountable to those regulations now. If there are
16 safety and performance issues at Pilgrim, then they are
17 being dealt with through the reactor oversight program.

18 We have a number of options available to
19 us, we can demand addition, demand information, a
20 demand for information, we can issue orders, we can
21 just pick up the phone, and call the site vice
22 president and say we have concerns in this area, and
23 they will respond, they will address those concerns, so
24 that's going on under a separate process. For license
25 renewal, we focus specifically on aging because there

1 are a number of other programs and processes in place
2 that are addressing the safety and performance issues,
3 if there are any, right now. Does that answer your
4 question?

5 MR. CAMERON: Does that get it, Peter?

6 MR. ROVETO: That does answer the
7 question.

8 MR. CAMERON: Good. Thanks, Rani, for
9 picking up on that.

10 MS. FRANOVICH: The gentleman doesn't look
11 terribly satisfied with the answer, but we can talk
12 some more after the meeting, if you would like.

13 MR. CAMERON: Anybody else? Yes?

14 MR. AGNEW: David Agnew, Chatham, Mass.

15 I might be a little thick, but I'm
16 wondering if you could clarify what is appropriate to
17 field, in terms of comments regarding the scope of the
18 environmental study and, I mean, to me, the word
19 environment is a pretty big word, like everything is in
20 the environment. So, you know, plutonium in the
21 lobsters, is that worthy of consideration? Cancer in
22 humans, is that worthy of consideration? A half
23 billion gallons of hot water a day dumped into Cape Cod
24 Bay, is that worthy of consideration?

25 And then, if you would, I realize that

1 tonight is specifically about the environmental and not
2 about the safety aspect, but I wonder if you could,
3 since these meetings are few and far between, if you
4 might be able to very briefly tell us when the deadline
5 is to submit such comments as might be heard under the
6 safety aspect of the review?

7 MR. CAMERON: So, Bob, are you going to do
8 the what's generally within scope and out of scope?

9 MR. SCHAAF: Well I might take the second
10 one first in that there is not really an analogous
11 comment process on the safety review, there are
12 opportunities for public involvement and those are the
13 filing a petition to request a hearing, there is an
14 opportunity when the Advisory Committee for Reactor
15 Safeguards reviews the application and the safety
16 evaluation report that the staff has prepared. They do
17 take public comments at those meetings, I think they
18 can be provided to them in writing, if someone, and we
19 can give you an answer for that, if you are interested.
20 They may be able to be provided in writing because they
21 typically hold those meetings in Rockville.

22 So there is not really a similar process
23 for providing comments. To the extent that we receive
24 comments that may relate to the aging management review
25 that the safety PM is conducting for license renewal,

1 we do, we do forward those to them for their
2 consideration in their review, but they don't offer a
3 public reply to those comments, such as we do with
4 scoping comments and comments on the draft, they factor
5 it into their review. As far as issues to be provided
6 on the environmental impact, certainly all of those
7 examples you gave are valid issues.

8 Honestly, it does help somewhat for folks
9 to do a little bit of homework in looking at the GEIS,
10 it's available on our website, and getting and
11 understanding of the background and the information
12 that has been considered in the development of those
13 category one issues. But certainly, if you are aware
14 of particular studies in an area that, or impacts that
15 you have concerns with, anything that relates to
16 aquatic ecology, terrestrial ecology, water quality,
17 water use, both ground water and surface water, you
18 know, threatened and endangered species, human health
19 impacts, anything that might be considered in any way
20 an environmental impact that you have a concern with or
21 issues are within the scope of our, may be within the
22 scope of our review, I'll put it that way, but it is a
23 pretty, it is a pretty broad review.

24 MR. CAMERON: Did you mention, on the
25 safety side, that when we do meetings on safety issues

1 that, although there are a meeting with the license
2 applicant, that the public has an opportunity to offer
3 observations on those safety issues.

4 MR. SCHAAF: When the inspection teams and
5 the audit teams for the safety review perform their
6 audits or inspections at the site, they do have exit
7 meetings, and it is a different level of involvement
8 that is offered but it is, there is an opportunity for
9 members of the public to question the staff on the
10 results of the review and to, and to comment on issues
11 of concern. It's not, they are not typically
12 transcribed meetings, such as this one, but the staff
13 is available to receive those comments and questions.

14 MR. CAMERON: And David, we are going to
15 go to Dr. P.T. Kuo, who is head of the license renewal,
16 deputy director of the license renewal program, to talk
17 more about the safety side, but I would just encourage
18 you because, as you said, environment is a very broad
19 term and, even though the generic statement might have
20 closed generically some issues, even those issues can
21 be opened if new and significant information is
22 presented. That's why we encourage people, if you have
23 a concern, if you have an issue, give us that issue so
24 that we can look at it and decide whether it's
25 ultimately in scope. And I'm going to ask Dr. Kuo to

1 talk about the safety issues.

2 MR. KUO: Thank you, Chip.

3 On the safety side, we do not have a
4 similar process, like the review that we have now.
5 However, we have many meetings with the applicants on
6 safety issues and every, each and every of these
7 meetings are public. In addition to that, we also have
8 audit teams on site, most likely they will come to the
9 site for about three times, do three audits, in other
10 words, and each of these audit meetings, after we
11 complete all these three meetings, then we will have an
12 exit meeting, or you can call it a status meeting.
13 That is to tell that between the NRC staff and the
14 applicant, to tell the applicant what our findings are,
15 what the issues are and that is also public, the public
16 can attend those meetings, if you wish.

17 And I'll come back to the issue this
18 gentleman brought about the operating records. When we
19 do the safety review, as Rani indicated several times,
20 we focus on the aging, so we review the aging
21 management program and in each of these aging
22 management programs, operating experience is one of the
23 most important factors we consider. So when we have,
24 when we review the aging management program, we will
25 review the operating experience records, whether they

1 are a current program actually is equal to job that we
2 want them to do.

3 If not, then they, say they have a program
4 to try to prevent a leak, and if they have several
5 leaks in the operating period and they say they have
6 the corrective action program to correct this problem,
7 well after the corrective program, they still have
8 leaks, then we will have questions about how effective
9 is your corrective action program, so that's a part of
10 our review. So it's all factored into our review about
11 each. I hope this answers your questions.

12 MR. CAMERON: Thank you so much, P.T.,
13 that's an important clarification.

14 And just to emphasize something, I believe
15 someone had a question over here, just to emphasize one
16 final thing for David that Bob said is that even though
17 we are here to hear environmental concerns, if someone
18 has a safety concern, we want to hear that expressed
19 and that's why we have Ram here. We make sure that
20 those safety issues are referred over so that Ram can
21 be sure that those are considered in the safety review.
22 Yes, sir?

23 MR. MILLICAN: Hi. My name is Ron
24 Millican. I have a couple of questions, which I
25 apologize if they are not relevant to the process, but

1 I think it's a point of information that members of the
2 community would want to know about, and the first is
3 what is the average life of a nuclear plant of this
4 design?

5 MR. SCHAAF: Well the plants are licensed
6 for 40 years, but that's based, in the Atomic Energy
7 Act, on economic considerations. Some components may
8 have been designed with a 40 year life in mind because
9 of that, but many of those components are replaced over
10 the life of the facility and that is what the focus of
11 the aging management review is on is to look at any
12 components that had originally a 40 year design life.
13 Part of the safety review is to go to the applicant to
14 prepare what we call time limited aging analyses, to
15 reevaluate those to extend the design life of those
16 components to a, for a 20 year renewal, a 60 year
17 operating period. I don't know if that quite gets to
18 your question.

19 MR. MILLICAN: But it does, but it doesn't
20 what the average life is. I mean if --.

21 MS. FRANOVICH: There is no numerical
22 value that can be provided to answer the question. As
23 Bob mentioned and as I stated when I gave my
24 presentation, the life of the plant is limited by the
25 Atomic Energy Act, not design considerations. In other

1 words, the plant is licensed to operate for 40 years
2 because that's what the Atomic Energy Act authorizes,
3 not because that's as good as the plant can last. The
4 plant can last longer than 40 years, certain components
5 may need to be refurbished or replaced. Sometimes
6 those refurbishments and replacements take place in the
7 current operating term, in the first 40 years.

8 So it just depends on what the component
9 is, what the design life of the component is, not the
10 plant, and what the licensee or applicant proposes to
11 do to either manage the aging, refurbish the component,
12 monitor aging or replace it, get a new one. Does that
13 answer your question?

14 MR. MILLICAN: Sort of, but I guess my
15 follow up question would be, as in any type of plant,
16 there must be some period of which the plant wears out,
17 or the physical structure or the radioactivity within
18 the plant itself, or are you saying that these plants
19 could last for 200 years?

20 MS. FRANOVICH: I didn't say they could
21 last for 200 years.

22 MR. MILLICAN: I know, I said that, but
23 you said indefinitely or didn't say a time period, so
24 I'm curious.

25 MS. FRANOVICH: The answer is component

1 specific, it's operating experience specific and that's
2 what the staff looks at. On a component by component
3 basis, what's the component, what's the material of the
4 component, what's the environment that the component is
5 exposed to, what are the aging effects and what is an
6 appropriate aging management program. Bob mentioned
7 time limited aging analyses, these are analyses on
8 components that are assumed to be long lived, that have
9 an analyzed life where the applicant can say based on
10 where this component's life is at this point in time,
11 we can analyze that the life can be extended by another
12 15 or 20 years, so those are options as well.

13 But it's not that the plant all of a
14 sudden, over night, at year 40, is no longer capable of
15 running, it's component and structure specific. And so
16 when a particular component or structure has been
17 subjected to an environment that causes aging effects
18 that need to be dealt with, that's what the staff
19 verifies the applicant will do for license renewal.

20 MR. MILLICAN: Okay, just one more, sorry.
21 So that would indicate that there has never been a
22 decommissioning of a nuclear plant in the U.S.?

23 MS. FRANOVICH: I don't think that's a
24 cogent statement. There have been plants that have
25 decommissioned for economic reasons.

1 MR. MILLICAN: For economic reasons but
2 not for safety reasons?

3 MS. FRANOVICH: Right. Now the staff has
4 the opportunity to issue an order to shut down a plant
5 for safety concerns, but it will do that in the current
6 operating term, it won't wait and say we are just not
7 going to renew your license. It would take the action
8 to issue an order to shut the plant down as soon as it
9 has a concern with safety, but the plants that have
10 chosen not to continue to operate have done that for
11 economic reasons.

12 MR. MILLICAN: Okay.

13 MR. CAMERON: I think it's important that,
14 is one more question that the reason that some of those
15 plants, you are saying it's economic reasons, but it
16 may have been that in order to comply with NRC safety
17 regulations, that--

18 MS. FRANOVICH: Capital investments would
19 have precluded--

20 MR. CAMERON: --plant would have to do
21 something and they decided that the cost benefit was
22 not there, and that's what Rani means by the economic,
23 but the driver was the compliance with NRC safety
24 regulations.

25 MR. MILLICAN: Okay, thank you, and thank

1 you for your patience, one more question.

2 MS. FRANOVICH: Good clarification,
3 thanks, Chip.

4 MR. MILLICAN: If, at some point, this
5 particular plant had to be decommissioned and the
6 current owners were not financially able to do that
7 because of the amount of the cost, who would be
8 responsible for picking up the cost to decommission a
9 plant that was deemed to be unsafe?

10 MS. UTTAL: There is a decommissioning
11 fund that all utilities have been required to
12 contribute to since, I guess since the day they started
13 to operate, and I think that decommissioning fund was
14 up to maybe \$16 billion, at last count.

15 MR. CAMERON: And don't confuse the Price
16 Anderson with the individual licensee.

17 MS. UTTAL: This is not Price, each
18 individual plant is required to have a decommissioning
19 fund, in a minimum amount, that is outside the
20 administrative control of the licensee, and most of the
21 licensees have chosen to have trust funds that they
22 invest in and the money is put in in various ways,
23 whether they are an electric utility or a nonelectric
24 utility. There is a mandatory minimum that is
25 recalculated every year, it's in 50, 10 CFR 50.75 and

1 five years before the licensee, the license is to
2 terminate, they have to do a site specific study to
3 pinpoint exactly how much it will cost to decommission,
4 but each licensee has many millions of dollars in these
5 decommissioning funds. I don't know what the status of
6 Pilgrim, I believe that it's fully funded and I believe
7 that's of the day it was transferred.

8 MR. CAMERON: It is fully funded.

9 MS. UTTAL: It is fully funded because
10 when it was transferred, it was required by the staff
11 to have a fully, and by the regulations to have a fully
12 funded decommissioning fund.

13 MR. CAMERON: Okay, thank you, Susan.

14 I think we need to get to comments and is
15 there, do we have one more question?

16 Diane? Go ahead. A question?

17 MS. TURCO: It was just so nice to come
18 down to Plymouth, what a beautiful town it is, it's so
19 quaint and it just brings to back to like the '60s, and
20 it made us think about that too because now, when you
21 talk about the environment, the environment of the Town
22 of Plymouth and surrounding areas has changed greatly,
23 the population has just boomed, and yet the emergency
24 plans are around these kind of narrow, small streets.

25 And my question is, and this is very

1 serious, is emergency planning and the safety, does the
2 NRC feel that the ten mile emergency planning zone can
3 be safely evacuated in the event of an accident at
4 Pilgrim? A fast moving accident.

5 MR. CAMERON: Can we go to Trish? Trish,
6 did you hear the question? Trish Milligan is with our
7 Nuclear Safety and Incident Response staff at NRC
8 headquarters and an emergency planning expert.

9 MS. MILLIGAN: Okay, as I understand your
10 question, it was does the NRC believe that the
11 population in the ten mile emergency planning zone can
12 be safely evacuated in a fast moving accident? There
13 are a variety of protective measures that would be
14 implemented in a fast moving accident, emergency
15 planning is not just evacuation, there is a lot that
16 goes into it, sheltering is one of those options. So,
17 through a combination of protective actions, yes, the
18 NRC believes that the population within the ten mile
19 emergency planning zone of the Pilgrim Station can be
20 safety protected in the event of a fast moving
21 accident.

22 MR. CAMERON: Thank you and thank you for
23 that question.

24 Let's go to comments and if we have any
25 time left or there are other questions, we'll go to

1 that. We are going to start with some local officials,
2 we are going to go to Thomas Bott and then to Mary
3 Ellen Burns and then to Andre Martecchini. Mr. Bott?
4 Okay, thank you.

5 Mary Ellen?

6 MS. BURNS: Good evening. My name is Mary
7 Ellen Burns, I am an elementary educator and a former
8 elementary school administrator. I am a town meeting
9 representative in Precinct 13, West Plymouth. My
10 husband and I have been residents of Plymouth for the
11 past 20 years, our 19 year old son was born here.

12 Very briefly tonight, it is my intent to
13 express to the NRC support for the renewal of the
14 license of the Pilgrim Nuclear Power Station. It is my
15 opinion, as well as the opinion of a significant number
16 of residents, to whom have spoken, both within my
17 precinct as well as within the general Plymouth
18 population, that the renewal of the license would
19 indeed be in the best interest of the community of
20 Plymouth. Thank you.

21 MR. CAMERON: Thank you, Mary Ellen.

22 And we are going to go to Andre
23 Martecchini now. Do you want to use this? It's up to
24 you, it's totally up to you.

25 MR. MARTECCHINI: Thank you very much. I

1 would like to thank the NRC for holding this event, and
2 my name is Andre Martecchini, I'm from the Town of
3 Duxbury, I'm a selectman, I represent about 15,000
4 people within the emergency evacuation zone of Pilgrim
5 Nuclear Power Plant. We have, in Duxbury, been very
6 concerned about the plant over the years, so I think
7 it's very important that certainly we, the citizens of
8 Duxbury, but certainly all of the citizens of this area
9 be very concerned about what goes into the scope of
10 this draft EIR. I would like to mention just two
11 points, briefly, one of them would be health concerns.

12 We have heard various studies have been
13 performed and I would like to make sure that the scope
14 does take into account an examination of various
15 studies of cancer. I know I have anecdotally seen, in
16 Duxbury, people with breast cancer, with various types
17 of cancers, that I'm not sure, and I don't know the
18 answer, and I'm not accusing anyone of anything, but I
19 would like to make sure that if there is any evidence
20 that does link health effects from radiation to these
21 various cancers, that that be studied and, if there is
22 obviously a causal effect, that, to me, would be
23 grounds for not relicensing the plant.

24 I believe we have very, very little data
25 monitoring radiation in the area. There may be

1 occasional radiation monitors at the plant but, for
2 instance, in Duxbury, we don't have any radiation
3 detectors, so I think I hear people say that even
4 during, if we had any kind of an event, it would be
5 very important for us to know where, if there is a
6 radiation release, where is it going and is it in fact
7 in Duxbury, or is it in Carver or is it in Plymouth?
8 So I think, as one of the mitigation things that I
9 would like to very strongly request, is that radiation
10 monitors be put throughout the area, and many of them.

11 And it would be, I think, in Pilgrim's
12 interest to have that because if, as I think they
13 claim, that radiation is not being disseminated around,
14 that would certainly prove their point. If there is
15 nothing being measured, then that's great for all of us
16 to know.

17 And secondly, the area of marine and
18 environmental concerns, the Town of Duxbury and I know
19 the Town of Plymouth, we have a thriving, and
20 aquaculture and marine fisheries business going on, and
21 not to mention the recreational sailing, and fishing
22 and everything. We are very concerned. As we see
23 today, we've had to close the bay, up and down the
24 coast, because of the flooding and rain. What is the
25 effect of the heat of the discharge that's being dumped

1 into the bay? How does that effect our environment for
2 our marine industries? So I think those two things I
3 would like to make sure will get in there and I will
4 have some formal written comments to be submitted
5 later. Thank you.

6 MR. CAMERON: Thank you, Selectman
7 Martecchini.

8 We are going to go to Jeff Berger, and
9 then Becky Chin and then Mary Lampert. Jeff?

10 MR. BERGER: Thank you. My name is,
11 excuse me for sitting, I'm recovering from cancer
12 surgery. My name is Jeff Berger, I'm Chairman of the
13 Nuclear Matters Committee of Plymouth, an advisory
14 group to the Plymouth Board of Selectmen.

15 In commenting about what Andre just said,
16 we do need to find out whether there is any
17 statistically significant amount of radiation in the
18 communities surrounding this plant and we need to find
19 out whether there is any relationship between that and
20 incidents of cancer that are statistically significant
21 in being higher than should normally be expected.

22 I have a certain kind of cancer and so do
23 the four people that live next to me on my street, we
24 need to find out why. I'm not casting dispersions on
25 the plant or suggesting that it's cause, that it's the

1 cause of this, but we do need to find out what the
2 cause is. There is an environmentally related
3 Achilles's Heel instituted for Plymouth and the towns
4 surrounding Plymouth and that Achilles's Heel is caused
5 by the NRC's current regulations. Here is the problem,
6 under your regulations, Entergy's Pilgrim Nuclear Power
7 Plant is told to monitor winds only from within the
8 grounds of the plant, no meteorological monitoring is
9 required anywhere else.

10 Consequently, should there be a serious
11 accident at Pilgrim, which results in the emission of a
12 dangerous, high radioactive plume, your required
13 monitoring will only tell emergency officials where the
14 wind is blowing at the plant, not where the plume is
15 actually going. Plymouth is a coastal community.
16 Particularly, in the summer, Plymouth may experience
17 sea breezes, cold fronts, warm fronts, occluded fronts
18 and other variations in wind speed and direction. A
19 member of our committee, Richard Rothstein, is a
20 certified consulting meteorologist with over three
21 decades of power and industrial consulting experience,
22 that's the gentleman sitting to my right.

23 In laymen's terms, he is a scientist
24 capable of giving expert testimony concerning wind
25 conditions. His findings, under the auspices of the

1 Nuclear Matters Committee, make it abundantly clear
2 that your monitoring tells officials nothing about
3 where a dangerous radioactive plume is actually going.
4 Your monitoring only says where the plume came from and
5 we already know that. If emergency officials within
6 the EPZ assume that a radioactive plume will travel in
7 a straight line from the plant, and if they make life
8 or death decisions based on that wrong assumption, they
9 could easily send thousands of Plymouth residents,
10 Duxbury residents and residents from surrounding towns
11 directly into the path of a radioactive cloud,
12 jeopardizing their health and their lives.

13 I believe you have said that, in the case
14 of a serious accident at Pilgrim, you intend to send
15 people into the field to monitor the plume's movement,
16 that will not work. In an age of cell phones, text
17 massaging and the Internet, news of a severe problem at
18 Pilgrim will reach most Plymouth almost instantly and
19 that means gridlock. NRC representatives dispatched to
20 conduct field monitoring will be hopelessly stuck in
21 traffic, like the rest of us.

22 There is one and only one way to ensure
23 that emergency officials have accurate, real time
24 information about the direction and speed of winds
25 within the EPZ, information on which they can reliably

1 base life or death decisions concerning evacuation or
2 sheltering in place, that is by requiring that Entergy
3 create, construct and deploy a complete, effective,
4 acceptable system of real time meteorological
5 monitoring stations throughout the EPZ, coupled with
6 current state of the art air quality models for
7 reliable dose prediction. Anything less means
8 emergency officials will have to make life or death
9 decisions based on information that is, in the very
10 simplest terms, garbage.

11 If you relicense this plant without
12 requiring Entergy to do that, you are not only failing
13 to account for Plymouth's environment in monitoring the
14 flow of radioactive plumes but, infinitely worse, you
15 are possibly imperiling the lives of thousands of
16 innocent people.

17 MR. CAMERON: Thank you for those
18 comments, Mr. Berger.

19 Next, we'll go to Becky Chin and, Becky,
20 would you like to use the podium?

21 MS. CHIN: Thank you. My name is Becky
22 Chin and I am currently the Vice Chairman of the
23 Duxbury Nuclear Advisory Committee and I have, however,
24 served two terms on the Duxbury School Committee, as
25 well as two terms on the Duxbury Board of Health, and I

1 have been a permanent resident of Duxbury for 36 years.

2 My comments tonight are on the direct
3 torus vent system that Pilgrim, as a Mark 1 boiling
4 water reactor, was built with a faulty containment
5 system and, in order to protect that containment from
6 total rupture, it was determined it was necessary to
7 vent any high pressure build up.

8 So the result was the direct torus vent
9 system was installed at Pilgrim, as well as all Mark 1
10 reactors, this system is an extension of the
11 containment ventilation system installed as a plant
12 upgrade in the 1980s, but it bypasses the standby gas
13 treatment system filters normally used to process
14 releases via the containment ventilation pathway.
15 Operated from the control room, the vent is a
16 reinforced pipe installed in the torus and designed to
17 release radioactive, high pressure steam generated in a
18 severe accident by allowing the unfiltered release
19 directly to the atmosphere through a 300 foot vent
20 stack.

21 There is no radiation monitor on the pipe
22 and valves that compromise the direct torus vent line.
23 So venting can result in a significant radioactive
24 release, even a release on the order of one percent of
25 the core's radioactive iodine and cesium would be a

1 very severe event. Reactor operators now have the
2 option, by direct action, to expose the public and the
3 environment to unknown amounts of harmful radiation in
4 order to save containment. The purpose of the
5 containment is to provide a barrier between the lethal
6 radiation inside the reactor and the public.

7 As a result of the GE design deficiency,
8 the original idea for a passive containment system has
9 been dangerously compromised and given over to human
10 control with all its associated risks of error and
11 technical failure. We want indirect venting, that is
12 allowing the steamer air to escape only after it's
13 passed through filters. The wet well pool will not
14 scrub out or eliminate highly radioactive fission
15 products. Unfiltered venting has been judged unsafe by
16 all regulatory agencies outside the United States, the
17 only advantage of direct venting is saving money for
18 the industry at the expense of the population.

19 The EPA has an acceptable standard for
20 exposure but, in the real world, there is no safe level
21 of exposure to radiation. Under the severe accident
22 mitigation analysis, Pilgrim's application stated that
23 a filter would reduce by half the amount of radiation
24 that would be released in an accident. I think half is
25 a major benefit for public health and safety. The

1 consequences should be calculated and compared with the
2 cost of the filtration system and mitigation should be
3 focused on the protection of public health, safety and
4 the regional economy, not a cost benefit for a multi
5 billion dollar industry trying to save dollars.

6 MR. CAMERON: Thank you, Becky.

7 And we are going to get to Mary, Mary
8 Lampert, now and, Mary, I believe you are also going to
9 put something into the record from Mass PIRG?

10 MS. LAMPERT: Yes. I have two comments
11 tonight, one from Mass PIRG that I will read and hand
12 in and then the other add on from Pilgrim Watch. This
13 actually is combined Toxics Action Center, Clean Water
14 Action and Mass PIRG. We appreciate your holding this
15 hearing for the public to be able to provide input on
16 the environmental review you will be conducting in
17 considering relicensing Pilgrim, the public deserves a
18 strong voice in the decision of whether to extend the
19 license or not. These brief comments will discuss
20 environmental issues and the review process, but we
21 would like to note the wide range of other issues that
22 are absent from the review.

23 These issues include security risks from a
24 overflowing on site waste storage pool and lax
25 oversight, 1970s era emergency planning and the often

1 economic cost to the surrounding communities and the
2 state. The Pilgrim Plant causes environmental damage
3 in three primary ways, radioactive releases, the
4 accumulation of dangerous waste and the high impact
5 water cooling system. Of these, only the water cooling
6 system is getting any attention by the Commission
7 during the review process. If the NRC decides to
8 relicense Pilgrim, we will have 20 more years of damage
9 to the health of ecosystems, species and humans.

10 We urge the NRC to consider, in depth, all
11 the significant environmental impacts which we believe
12 are grounds for denying the relicense of the plant.
13 The National Academy of Sciences BIRS 7 report,
14 biological effects of ionizing radiation, June, 2005,
15 stated that there is no safe dose of radiation.
16 Pilgrim emits radiation daily and these radiation
17 releases have been linked to increased rates of
18 leukemia and thyroid cancers in the towns around
19 Pilgrim. Over 1.2 million pounds of high level
20 radioactive nuclear waste is stored on site at the
21 Pilgrim Plant, this waste poses a risk to the health of
22 humans and ecosystems for centuries to come, but there
23 are currently no clear disposal options outside of the
24 state.

25 Even if present plans for establishing a

ADVANCE SERVICES
Franklin, Massachusetts
(508) 520-2076

1 federal waste repository at Yucca Mountain move forward
2 on schedule, that facility would reach maximum capacity
3 long before a relicensed Pilgrim stops generating its
4 waste. Plant owners and the NRC need to have a clear
5 and safe plan for storage of radioactive waste before
6 the extension is granted. Finally, the Pilgrim Plant's
7 cooling system causes significant damage to the
8 environment of Cape Cod Bay. Pilgrim uses a once
9 through cooling system, taking in nearly one half
10 billion gallons of water a day and setting it into the
11 bay at 25 or more degrees hotter.

12 An additional 20 years of operations at
13 Pilgrim, using this cooling system, could kill billions
14 of aquatic plants and animals, this cooling system also
15 violates Section 316B of the Federal Clean Water Act
16 which requires the plant to use the best available
17 technology to minimize environmental impact. We
18 believe that the plant must be held to the highest
19 standards under the Clean Water Act and a closed cycle
20 cooling system should be installed as soon as possible,
21 and certainly before the license extension is granted.
22 Based on the seriousness of environmental impacts, we
23 ask the Commission to broaden the scope of its
24 environmental review to include radiation and waste
25 accumulation and to require major improvements in

1 Pilgrim's cooling system.

2 And from Pilgrim Watch, which is a local
3 group that deals, works with these three groups, that
4 are statewide, on this important issue, we would add,
5 on spent fuel, that this should be considered in this
6 relicensing process because there is significant new
7 information which is the standard, the new information
8 that is significant is that excluding spent fuel from
9 the review was based on a feeling there would be off
10 site options. However, we know there are no off site
11 options in any period of time that we will be talking
12 about in the license extension.

13 Therefore, the Waste Confidence Act, which
14 exists and was the underpinning of why spent fuel is
15 not looked at, does not hold water, so the new
16 information is Yucca is not going to happen any time
17 soon, reprocessing is not going to happen any time
18 soon, nor is the Goshute Indian Tribe place going to
19 happen any time soon, so we'll be here. Therefore, we
20 must be told beforehand what the options will be for
21 safer storage. The Town of Duxbury, on two occasions,
22 has stated that we want safer interim storage, meaning
23 low density pool storage, and secured, hardened dry
24 cast storage until there is an off site option.

25 The second new piece of information is the

1 National Academy of Sciences' study on the
2 vulnerability of spent fuel storage and they stated,
3 unequivocally, that reactors designed like Pilgrim,
4 Mark One BWRs, that have the pool high up in the attic,
5 if you will, of the reactor building, are the most
6 vulnerable to loss of water, whether by accident or
7 attack, and there would be a consequence, fire, in a
8 dense pool that could not be put out and could
9 contaminate 500 miles. Therefore, for at least these
10 two pieces of new and significant information, it
11 should be considered.

12 Health is another issue that should be
13 considered on a site specific basis, again because of
14 new and significant information. There have been
15 studies of health damage in this community, there were
16 studies done by Dr. Sidney Cobb and Dr. Richard Clapp
17 in the `70s, there was a case controlled leukemia study
18 showing a fourfold increase the closer you lived or
19 worked to Pilgrim. Then there has been a statistical
20 or simply significant increase in thyroid cancer and
21 leukemia in all seven impacted communities because both
22 Pembroke and Plympton are effected by the sea breeze
23 effect and get these emissions.

24 Another piece of new information is the
25 BIIERS 7 report which found exposure to low level

1 radiation at least three times more damaging than
2 heretofore thought. Also, we have, as new information,
3 the demographic changes projected from 2012 to 2032 of
4 a one out of three being over 55 and older people are
5 susceptible to radiation damage than younger. Also,
6 the BIEERS 7 report pointed out the synergistic effect
7 of radiation with other toxins, each magnifying the
8 other's mischief, if you will, and no one can doubt the
9 fact that, between 2012 and 2032, there will be more,
10 not less, pollution.

11 These communities are also downwind from
12 the Canal Electric Plant and there has been significant
13 pesticide use in the agriculture. So, we have been
14 exposed and will continue to be exposed to a
15 multiplicity of toxins that will work together. Also,
16 no one denied the fact that 1982, when Pilgrim had a
17 severe accident of blowing its filters, that that
18 damaging effect is still here. Many of what never
19 should been released radionuclides, with long half
20 lives, are still in our environment. This is all new
21 information, therefore, and significant information.
22 Therefore, it should be looked at.

23 The last point that Pilgrim Watch would
24 like to add onto the marine effects are these specifics
25 issues, effects of once through cooling. DEP stated

1 that the resource agencies, in concert with the
2 permitting agencies, should consider further evaluation
3 of the intake effects to winter flounder. If effects
4 are found to be substantial, these agencies should
5 determine what steps should be taken next. They
6 particularly pointed out that winter flounder that is
7 dumped in from a Chatham laboratory, that we heard from
8 this afternoon, that these are fish that go in, but
9 they are different, genetically, and they don't breed
10 with the current stock.

11 The second comment from DEP was because
12 impringed fish from the intake screens are shunted back
13 into the intake, there is concern that these fish,
14 weakened from imprinting, will simply be reimpringed.
15 Permitting the resource, permitting resource agencies
16 should consider requiring an assessment of
17 reimpriment rates to select species of concern.
18 These studies should also assess the need to relocate
19 the discharge point for impringed fish in order to
20 minimize reimpriment. Thermal discharge temperature
21 is now averaged, there should be a cap and required
22 instantaneous measurement.

23 Rainbow smelt, as you heard today, they
24 are considering putting on the endangered species list
25 because of their low numbers in the Jones River

1 Watershed. There should be a policy statement
2 regarding losses on a square mile basis, this has not
3 been done by any federal agency and, if you don't have
4 a real standard, then what are you doing? Also, there
5 appear to be many methods used to determine impact,
6 each with drawbacks. What methods would provide the
7 most reliable results? This should be clearly stated
8 in the analysis provided.

9 Last, no, that would be a repeat. So,
10 that's it, and we will provide written testimony, and
11 thank you very much for the opportunity and we
12 appreciate, in particular, Chip, the way you handle the
13 meetings. Thank you.

14 MR. CAMERON: Thank you, Mary.

15 Our next three speakers, we are going to
16 go to Mr. Peter Roveto, are you okay? All right.

17 David Agnew and then Peter Curley. David,
18 do you want to come up? I'm sorry? Okay, thank you,
19 David.

20 Mr. Curley?

21 MR. CURLEY: My name is Peter Curley and I
22 am a resident of Plymouth, I live in town, I've lived
23 here since 1970 with my family. I have a concern about
24 the warning system for the Plymouth power plant, I had
25 mentioned this to people in the past, some of them from

1 Pilgrim, and nothing public has ever been made of it.
2 My concerns are the following, the warning towers, if
3 you would call them, are insufficient in terms of
4 warning people inside a building, particularly if there
5 is a sufficient storm outside, a windstorm, or a
6 snowstorm or rain, and more particularly, at 3:00 in
7 the morning when you are sound asleep, you just don't
8 hear them.

9 My recommendation would be, instead, would
10 be to have every dwelling or every building, office
11 space, be outfitted with a radio receiver that would be
12 on and one, it would have a battery back up built into
13 it so that people could be woken up, if Pilgrim goes
14 off at 2:00 in the morning, which, you know, this does
15 not, there is no provision for this, at the present
16 time, so that if there is any type of alarm, you are
17 not going to hear it, if you are asleep. That's really
18 all I had to say, thank you.

19 MR. CAMERON: Thank you for that
20 suggestion, Mr. Curley.

21 I think maybe we will go to Joyce, Joyce
22 McMahon, at this point.

23 MS. MCMAHON: Good evening. My name is
24 Joyce McMahon and I am the Communications Director for
25 the Massachusetts Affordable Reliable Electricity

1 Alliance, Mass AREA, for short.

2 First, let me thank you for this
3 opportunity to address the Commission, we do appreciate
4 your time. Second, I would like to tell you a bit
5 about Mass AREA and why we felt it was important to be
6 here. Mass AREA is a diverse, statewide group
7 comprised of more than 50 labor/trade associations,
8 businesses, including Entergy, educators, scientists,
9 advocates and community leaders. We are committed to
10 finding clean, low cost and reliable electricity
11 solutions that benefit all of Massachusetts, this is an
12 urgent public policy challenge.

13 We came together in early January after
14 several warnings were issued by the Federal Energy
15 Regulatory Commission, ISO New England, the Federal
16 Reserve Bank of Boston and the Federal Deposit
17 Insurance Corporation, all of which said that energy
18 supplies will be insufficient to meet demand as early
19 as 2008, and that energy prices are currently causing
20 and, for the foreseeable future, will continue to cause
21 hardship for the region's businesses and residents,
22 particularly the most vulnerable populations, such as
23 elderly and the low income.

24 While Mass AREA's mission is broad and
25 focused to include new electric generation in the form

1 of renewable energy sources, developing new natural gas
2 supplies and encouraging energy efficiency and
3 conservation, Mass AREA and its members fully support
4 the relicensing of the Pilgrim Nuclear Power Plant.
5 Given this pending electricity supply problem, we must
6 keep Pilgrim station in operation as, on a typical day,
7 it provides seven to nine percent of the commonwealth's
8 electricity. Without it, Massachusetts and the region,
9 as a whole, could face power supply shortages,
10 including rolling blackouts, a lot sooner than the
11 prediction of two years from now.

12 Further, since no new power plants are
13 planned and Cape Wind faces opposition, it becomes even
14 more vital that we maintain our current supply,
15 including Pilgrim. From an economic standpoint, since
16 the owners of the plant sell their power through long
17 term contracts and not on the volatile short term
18 market, the power produced at Pilgrim is much lower
19 cost than the regional average.

20 Since Massachusetts ranks third in the
21 nation in terms of highest electricity cost and since
22 we also have some of the highest housing and health
23 care costs, it becomes even more important to maintain
24 Pilgrim's very reliable, low cost electricity so that
25 we don't continue to have an exodus of residents and

1 businesses from our state who can no longer afford to
2 live or work here.

3 Speaking of work, Pilgrim is also an
4 important source of jobs, there is more than 700
5 permanent, full time employees, most of whom live in
6 Plymouth and the surrounding communities. Indeed,
7 Pilgrim supports the local economy to the tune of \$135
8 million a year in local economic activity. More
9 importantly, the electricity that Pilgrim supplies is
10 created without generating any greenhouse gas emissions
11 and, therefore, it does not contribute to global
12 warming.

13 Entergy, the owners of the plant, is also
14 involved in a number of valuable environmental
15 initiatives, perhaps one of the most interesting is
16 that they did a great deal of study in the waters of
17 Cape Cod and the indigenous fish populations. That
18 resulted in their working with Llenoco, a fish
19 hatchery in Chatham, down on the Cape, which every year
20 hatches, rears and releases 25,000 winter flounder into
21 Plymouth Harbor for the benefit of the state and the
22 local fishing industry. Entergy also contributes a
23 large amount of money, in the form of grants, to
24 several local environmental groups working with aquatic
25 and other environmental initiatives.

1 Also, from an environmental standpoint,
2 Pilgrim doesn't require any potentially environmentally
3 perilous actions, such as drilling wells, sending
4 tankers across oceans loaded with fossil fuel cargos,
5 nor laying pipelines over land or under sea to get fuel
6 to this plant, nor does it require the taking of tens
7 of thousands of acres of land to erect wind turbines to
8 create a similar electrical output.

9 My point here is not to disparage any and
10 all fuel sources, but rather to demonstrate that no
11 energy option is going to please all the people all the
12 time, nor is there a silver bullet that is going to
13 solve our energy supply crisis.

14 Mass AREA has weighed all the
15 environmental, economic and energy supply traits of
16 Pilgrim, particularly its high NRC safety rating, and
17 concluded that the Pilgrim Nuclear Power Plant is vital
18 to the region, state and local community for its
19 environmentally sound operations, its economic
20 contribution to the local community through the
21 provision of jobs and purchase of goods and services
22 and its provision of reliable, low cost electricity.
23 Mass AREA encourages the NRC to grant Entergy's Pilgrim
24 Station an extension of its license so that it can
25 continue to operate safely for an additional 20 years.

1 Thank you again for this opportunity to
2 speak here today, Mass AREA looks forward to
3 contributing to the process embarked upon by the NRC
4 over the course of the next 18 to 24 months.

5 MR. CAMERON: Thank you, thank you, Joyce.

6 Do we have a Mr. or a Ms. Millican? Okay.

7 Mr. Arthur Powers? And then we are going
8 to go to, after Mr. Powers, to Mr. Curcuru. Mr.
9 Powers?

10 MR. POWERS: Good evening. My name is
11 Arthur Powers, I'm a resident of Plymouth here. My
12 wife has been a property owner in town for over 30
13 years.

14 I too suffer from cancer, but it's not
15 caused by nuclear regulation, not caused by the nuclear
16 power plant, so it doesn't bother me. What bothers me
17 is, as a taxpayer in this town, we all know what's
18 happening, our taxes are going up and we want to get
19 rid of one of the better taxpayers we have in town.
20 They are willing to work with us on taxes, it's an
21 important factor, right?

22 They are over here generating quite a bit
23 of electricity for us, doing their thing. If we lose
24 them, we are going to lose that power, we are going to
25 have to rely on tankers. I recall, last summer, over

1 in Buzzard's Bay, when they were bringing the Bouchard
2 Tanker up, it hit a rock, 90,000 barrels of oil or
3 gallons of oil in Fairhaven, where I used to live,
4 where I used to have a boat. I saw the devastation
5 caused by that little tanker problem. We're talking
6 about the LNG tankers up in Boston, for natural gas, we
7 don't want that, and all these things here that you
8 brought up tonight, but people are forgetting one
9 simple fact, we need the electricity.

10 We can't be dependent on foreign oil
11 because you saw what happened to the price of gasoline,
12 you saw your energy bills this winter. What you are
13 seeing here is and what I've been listening to here
14 tonight, and I'm no scientist, I'm just a simple
15 country boy from Texas up here in New England. I'm not
16 a scientist and I'm not a greenhouse expert, but I also
17 understand we are having a problem with that too,
18 caused by fossil fuel. It makes you kind of think,
19 okay?

20 So my point is this and I would like to
21 support the Pilgrim Power Plant for the following
22 reasons, one, we need their electricity. Two, it's
23 going to help the residents of the Town of Plymouth
24 with their taxes and the surrounding town also are
25 going to benefit from it because they are going to have

1 700 jobs over there, paying salaries, and they are
2 going to spend the money in their surrounding towns.
3 People forget this.

4 I've been listening to a lot of the
5 comments tonight that I have to kind of sit back and
6 look at. This plant has been over here for 20 years,
7 the water had been coming, the water has been going,
8 and there has got to be a heck of a lot more water in
9 that ocean out there than what they are putting out
10 every day to filter it out.

11 Yeah, they are not going to have Yucca
12 Mountain for storage until the rest of the country says
13 not in my backyard, so let's give them a chance over
14 here. What do they want to do with their spent rods?
15 Well I've heard the idea of let's put it in cement.
16 Okay, that sounds good, that's acceptable, let them do
17 it. So what if it's in your backyard? It's got to go
18 somewhere. If everybody says not in my backyard,
19 what's going to happen? We are going to have
20 blackouts, we are not going to have warm houses, we are
21 not going to have schools because there is no tax
22 dollars, we are not going to have jobs.

23 We are worried about this plant over here,
24 what about the growth over here, just off Commerce Way,
25 with all those new stores they are going to put in,

1 with all those thousands of cars that are going to go
2 there every day, burning up gasoline, burning up oil,
3 burning up gas into the atmosphere with the greenhouse?
4 So think about what you are doing here. They have a
5 viable plant here that is producing energy that we
6 need. Back in 1979 and the early '80s, the general
7 manager of General Electric says we have to look at
8 nuclear, that's the way to go. Thank you.

9 MR. CAMERON: Thanks, Mr. Powers.

10 As I mentioned, we are going to go to
11 Mr. Curcuru and then we are going to go to Mr. Stone.
12 This is Mr. Curcuru.

13 MR. CURCURU: Yes, my name is Leonard
14 Curcuru and I'm also a member of Mass AREA for
15 affordable, reliable electricity. I'm also an employee
16 at Pilgrim Station and, unlike many people here, me and
17 my family have lived on Rocky Hill Road, directly
18 adjacent to the plant and, as far as the environmental
19 impact, I would just like to say that it's been, from
20 what I've seen, it's been overwhelmingly positive.
21 Otherwise, I would move to a different area, and I just
22 see the abundance of wildlife in 1,500 acres of buffer
23 zone around the plant, and I see really good fishing at
24 the discharge, it's the best fishing around, and the
25 air quality is excellent, and the water quality is

1 excellent and the ground water is excellent, and I
2 would just like to see that continue.

3 We all have to keep in mind that if we do
4 shut the plant down and we don't extend the license, we
5 are still going to have to get that 680 megawatts from
6 someplace else and, like the previous gentleman said,
7 where is that electricity going to come from and what's
8 the environmental impact going to be from the
9 generation of that additional megawatts from someplace
10 else? That's about all I have to say, thank you.

11 MR. CAMERON: Thank you very much.

12 Mr. Stone?

13 MR. STONE: Thanks for the opportunity to
14 speak my mind. My name is William Stone, I'm a
15 resident of Plymouth, I've lived here for 33 years. My
16 wife's family has been here for 384 years, and she has
17 allowed me to speak tonight, as well as you have. We
18 have our children living in town also and our
19 grandchildren. As I've said, we've lived here for 33
20 years.

21 By profession, I'm a certified property
22 manager and I own an accredited management
23 organization, so that we do rely on dependable
24 electricity in the operation of different plants and
25 different areas. And I think, as a resident of the

1 town, I really am not aware of the things that are
2 being eluded to tonight, other than the fact that we do
3 all recognize that, in America, we do have a pandemic
4 of cancer of different types and I think that if it's
5 directly attributable to nuclear power, then we have an
6 awful lot of it all over the country.

7 One of the things that I am concerned
8 about is the socioeconomic events, as well as the
9 environmental events on properties that have been
10 constructed in this region since 1945. When I say
11 that, in particular, I'm looking at different
12 situations and how we are going to deal with the energy
13 cutbacks that we are going to be facing in another year
14 or two, or perhaps a little bit farther out.

15 One of the properties that we do manage is
16 in Norwell, Massachusetts and it's a residential
17 property with a sewage treatment plant on it. What
18 most of our cities and towns in Southeastern
19 Massachusetts have done in the last two decades, they
20 require developers to in fact take on all of the
21 infrastructure in the development and put that actually
22 into the cost of development.

23 This particular property processes 208,000
24 gallons of sewage, on site, per month and we, in that
25 property, have only 30 families and, within that

1 property also, in that it's a 40B project, it does
2 allow for 25 percent of the homes to be occupied by
3 people with limited resources.

4 We also have a child that has brain
5 damage, she is living with a working mom and, as we are
6 trying to deal with dependable electricity for this
7 young woman, our concerns are she has to have an air
8 conditioned, climate controlled environment. So,
9 again, when we are talking about dependable electricity
10 and dependable fuel sources, we have, I have concerns
11 on a regional basis. Our firm also managed a \$150
12 million golf and residential property on Buzzard's Bay
13 during the oil spill, we dealt with the Bouchard mess.
14 We dealt with it through Clean Harbors and through the
15 United States Coast Guard, and we did witness the death
16 and dying of a number of birds.

17 And I think that when we are talking about
18 fossil fuels, we have to consider that there is a risk
19 in everything, there is a risk in everything in our
20 environment. In addition to the property in Norwell,
21 we have properties in Howell and Rockland that also
22 have sewage ejection pumps. Again, these are
23 properties that have been developed in the last two
24 decades that have to in fact pump all of their sewage
25 into the towns, and our lift stations that we have are

1 something that's critical. When we are dealing with
2 sewage, we are dealing with a public health issue and I
3 think, as far as those public health issues are
4 concerned, we have to review the fact that just about
5 everything that we count on for energy has a risk
6 involved in it.

7 I don't believe that 700 employees and
8 their families would live in this town if they thought
9 that their children and they were going to all get
10 cancer, so I think we have to look at that. We also
11 have to look at the fact that we, in America, including
12 myself, I guess, we are all energy gluttons and, as
13 energy gluttons, I did sell my SUV in 2000 because I
14 saw that 40 percent of America owned SUVs and I said,
15 gee, if I know that, then I think the folks in Saudi
16 Arabia and foreign oil countries will recognize that
17 also.

18 Obviously, everything we are dealing with
19 right now is a result of our lifestyle and the
20 lifestyle we have did not bring me to count one bicycle
21 in the parking lot this evening, as I came into the
22 meeting. I think we are responsible for our own
23 future. We have literally grown in this area of
24 Plymouth, and Duxbury and all of our south shore towns,
25 from when our people landed here 384 years ago. We

1 have gone from the point where we were heating our
2 homes with firewood, and we went to coal, we didn't
3 like that, we went to oil. We are now into the nuclear
4 age and, as far as its concerned, I would just like to
5 know and I think perhaps people from some of the, some
6 of the people who are providing studies is what are the
7 alternatives?

8 Certainly, I've heard, and I think as you
9 all read in the media, wind power, solar power, fuel,
10 gas, gas fuel, as far as bringing it into Fall River,
11 bringing it into Boston Harbor, all of these things are
12 not something that anybody wants to have, as the
13 gentleman said from Texas, thank you and welcome to
14 Plymouth, for the last 20 years. The fact is that we
15 have to have alternative energy and if nuclear is not
16 the safest, then I think we have to find out what's
17 better and, as we have proposed just about everything,
18 we have had situations that have caused us to get more
19 and more limited. I don't think we can protect
20 ourselves from just about anything that we are dealing
21 with.

22 In my past, I've had the opportunity to
23 teach economics on the college level and that of course
24 requires me, I won't say requires me, but I try to read
25 the *Wall Street Journal* on a daily basis. One of the

1 things that I've noticed is that the Chinese Government
2 has commissioned the manufacture and construction, as
3 we know, of the world's largest hydroelectric dam, but
4 we haven't paid attention to the fact that they are
5 also commissioning 88 nuclear power plants and, if they
6 are doing that, and we have a great regulatory agency
7 in the NRC, perhaps we should also share those
8 regulations with the Chinese.

9 And while we are at it, France is going to
10 be commissioning 20 nuclear power plants also, so the
11 thoughts that I have is certainly regulations of
12 damaging causes, if they do exist, should be something
13 that would be required, but we also are living in a
14 global economy, it's a world economy and, if we don't
15 also look outside of our own borders, then we are going
16 to have some issues.

17 As far as I'm concerned, thank you very
18 much for letting me speak tonight, and I think that we
19 have the greatest country in the world and I hope that
20 we continue to talk with each other, as we have this
21 evening. Thank you.

22 MR. CAMERON: Great, thank you, thank you
23 for those thoughts, Mr. Stone.

24 And we are going to go to Joan Bartlett,
25 Joan?

1 Janet? Janet Humes?

2 Sandra? Sandra Woods?

3 MS. WOODS: Hi. Thank you. My name is
4 Sandra Woods and I've lived on the South Shore most of
5 my life. I moved down to Marshfield from Medford when
6 I was five. I'm from a very large family, I'm the
7 youngest of eight, and I have a very large extended
8 family, my mother is one of seven, and I have scores of
9 cousins, and aunts and uncles in Plymouth, Duxbury,
10 Kingston, Bridgewater.

11 And I am in favor of the relicensing of
12 Pilgrim, personally. Mine is, for the most part, for
13 economic reasons. To these high energy prices, anybody
14 can see \$3 gas and certainly anybody paying their
15 electric bill this year or their gas bill can see, it's
16 making it difficult for young families, like mine, to
17 make ends meet, and certainly to have time to relax,
18 and spend time with your family and enjoy the beautiful
19 surroundings we have in the south shore, it's why we
20 are here.

21 And quite frankly, it's scary to think how
22 much higher the prices could go without Pilgrim and how
23 that would impact our quality of life even further.
24 And what else do I want to say?

25 On an aside, I wanted to mention I heard a

1 lot about thyroid cancer, that's rampant in my family
2 and I would be interested to see if, on those studies,
3 they also did genetic studies because I had mine out
4 when I was two, and I lived in Medford, and my sister
5 just had hers out, and she lives in Marlboro, and I
6 have another sister who had hers out, and she lived in
7 Andover, so I wonder how much of it is genetic and how
8 much of it is environmental too, so I would like to
9 see, on those studies, if they also followed that up
10 with genetics too. Thank you.

11 MR. CAMERON: Thank you, thank you,
12 Sandra.

13 And we are going to go to Janet Humes and
14 then we'll go to Mr. Leonardi.

15 MS. HUMES: My name is Janet Humes, I'm an
16 environmental geologist and my question dovetails with
17 hers, I'm interested in what kind of epidemiological
18 studies have been conducted on cancer rates related
19 specifically to Pilgrim, as well as other areas with
20 nuclear plants, and I'm hoping somebody can help
21 distribute that information. Thanks.

22 MR. CAMERON: Thanks, Janet, and when we
23 are done with the other speakers, maybe I'll ask Rich
24 Emch to perhaps tell us a little bit about that, if he
25 has the information. Pardon me? He is a health

1 physicist, but has knowledge of epidemiology and we
2 have other staff here who know that, and we'll try to
3 give you a little information on the record, but what I
4 would like to do is have Rich and Trish Milligan talk
5 to you after the meeting and tell you everything that
6 is out there, but we'll try to get some things on the
7 record for you. Pardon me?

8 MS. HUMES: The National Academy of
9 Sciences review is on the Web.

10 MR. CAMERON: Okay, and we'll give you, we
11 are going to go to the two other speakers now and then
12 we can continue this conversation.

13 Mr. Leonardi?

14 Okay, Mr. Bob Smith, and then we are going
15 to go to Mr. Jerry Benezra.

16 Mr. Smith? Great, are you going to come
17 up and talk to us? All right.

18 MR. SMITH: I spent 20 years teaching high
19 school students environmental science and so I've spent
20 a lot of time looking at the issues and trying to get
21 them to understand the issues involved with regard to
22 nuclear reactors. I'm not a nuclear scientist, by any
23 means, but I would like you all to think back three
24 weeks ago, there was an anniversary, the anniversary of
25 Chernobyl. Now most of you, most of the people here,

1 were from Carver, Plymouth, Marshfield, Duxbury. Well
2 if we take a look at Chernobyl and what happened there
3 when that nuclear reactor melted down, 125,000 people
4 died and 3.5 million people became ill, 400,000 people
5 had to permanently leave their homes, half a million
6 people were exposed to dangerous levels of
7 radioactivity.

8 As of 2010, it is expected there will be
9 8,000 to 10,000 cases of thyroid cancer as a result of
10 this catastrophe. The total cost of the damages is
11 predicted to exceed \$358 billion, the food chains in
12 Europe, the former Soviet Union and the earth are
13 permanently contaminated with radioactivity from this
14 event for the next million years. The Nuclear
15 Regulatory Commission would argue that this monumental
16 catastrophe was caused by a flawed design of the
17 reactor, it could never happen in the United States,
18 but previous to Chernobyl, we had Three Mile Island and
19 there was almost a meltdown there, with our finely
20 tuned and developed design.

21 The existence, the very existence of the
22 NRC points to the possibility of a major environmental
23 disaster as a result of all these reactors. At the
24 beginning of nuclear power, power was supposed to be
25 produced and electricity so efficiently that it would

1 be too cheap to meter. As it has turned out, this form
2 of energy is the least efficient with over 92 percent
3 of the original energy being wasted and, two, it costs
4 two to three times more to generate power with nuclear
5 energy than any other form of power generation. The
6 radioactive waste problem was another issue which the
7 nuclear energy industry would have to solve in the
8 future.

9 When the plant was originally
10 commissioned, we were promised that this was a problem
11 that would be resolved. This problem has not been
12 solved, the radioactive waste produced by Pilgrim sits
13 on the site of the plant and will continue to increase
14 in quantity for another 20 years if the plant is
15 relicensed. Maybe it could be shipped to Yucca
16 Mountain in Nevada where it would have to remain safely
17 contained for over a million years. Take a trip to Las
18 Vegas and ask the officials there if they have faith in
19 the nuclear industry.

20 And then there is the security in the era
21 of 9/11, another issue which did not exist when the
22 nuclear industry was first born. Suicidal terrorists,
23 could they be stopped? Is there security that could
24 stop a shoulder launched missile attack, considering
25 that these missiles have a range of several miles? Is

1 Plymouth going to become the proving ground for the
2 success of another terrorist scenario? Twenty more
3 years of operation would certainly increase the amount
4 of waste and the damage of such an attack.

5 The NRC should be trying to figure out how
6 to solve the problem that has been created by the
7 operation of the Pilgrim Power Plant over the previous
8 40 years, not relicensing it for the next 20 years.

9 Plymouth has been lucky, during the last
10 40 years that the Pilgrim Plant has been generating
11 electricity, 20 more years, Plymouth is pushing its
12 luck. There has been no Chernobyl in Plymouth,
13 America's hometown. Every day, for the next 20 years,
14 this threat will exist, all for the sake of over priced
15 electricity. So what is going to happen to Plymouth in
16 the next 384 years, if it's still here, if we continue
17 on pursuing this disastrous approach to producing
18 electricity?

19 Let's have a wind farm out in Nantucket
20 Sound, you are not going to have any problems there.
21 There is no NRC to oversee a wind farm because there is
22 no problem with a wind farm as serious as the problem
23 that exists with the radioactive substances that we are
24 using today in these reactors. Thank you.

25 MR. CAMERON: Thank you, Mr. Smith.

1 And we are going to go to Mr. Benezra,
2 Jerry Benezra, right now.

3 MR. BENEZRA: My name is Jerry Benezra, I
4 really hadn't planned on speaking this evening and I
5 need to make very clear that I am here speaking tonight
6 as a private citizen, and I only say that because I may
7 be involved in this process in another capacity. So,
8 let me repeat, I am here as a private citizen tonight,
9 speaking as a private citizen.

10 The reason I'm speaking is because, like
11 one of the previous speakers, I know a little bit about
12 what's happening China. Like that previous speaker, I
13 happen to be pro nuclear, I happen to believe that
14 there should be a nuclear power plant here in Plymouth.
15 But one of the things that happens every time I come
16 back through immigration and they say welcome home, I'm
17 not embarrassed to say I always get this chill in my
18 spine and occasionally, depending on how long I've been
19 out, I get this little tear in my eye, but what's
20 making me speak tonight is because one of the
21 differences between us and China is the process that I
22 anticipate we are going to have here.

23 So, as much as I am pro nuclear, I am also
24 pro a process that is fair and that is a level playing
25 field. The reason I'm speaking tonight is because I

1 happen to have some knowledge about the roads in
2 Plymouth, as do most of the people here.

3 We have four major north/south roads, out
4 of which one of them is Rte. 3 and the other three are
5 inadequate. One of them is a road that is primarily
6 gravel, for a large part of it, and is impassible,
7 that's the one nearest the hospital. I know, from
8 talking to people in the town, that there are problems
9 that with that road, as it gets closer to the hospital.
10 We have Rte. 3A which, as we know, is very well
11 traveled, but is also one lane, and we have another
12 private street, which now runs into the Shops at 5.

13 There is nobody in Plymouth, there is
14 nobody in Massachusetts who goes through Plymouth who
15 would believe that we could have an evacuation and the
16 reason I'm speaking tonight is because when I hear a
17 question and the question is in terms of a fast moving
18 event, and I see our facilitator, who I have a great
19 deal of respect for because of the last time he was
20 here, turns to the person at the NRC, who I assume is
21 the most knowledgeable, and that person says there is
22 no problem, then we are not only not in the same town,
23 we are not in the same state, we are not in the same
24 country and, to lapse into the vernacular, we are not
25 on the same planet.

1 So what I'm concerned about, and I
2 understand, I understand fully that tonight we are
3 talking about environmental issues, but I want to talk
4 about a process issue and my process issue is that if
5 they are as sure about everything else that is in the
6 preliminary statement as they are about that statement,
7 then we have a problem, and all of us, whether we are
8 pro nuclear or not. And believe me, I want to see this
9 plant stay, I understand what it means for the city, I
10 understand what it means for energy, I understand all
11 those issues because, without going into a resume, I'm
12 involved in a company that's involved in energy on a
13 global level, in fairly big numbers.

14 So what I want to say is that I think we
15 really need to be concerned about this process. Now
16 let's just talk about a few other things. One other
17 speaker talked about the evacuation and, by the way, we
18 have a summer place here for 35 years, my wife has been
19 here for over 50 years, and all of us who are here,
20 remember the last time they went off? I mean who even
21 realizes what it is? We are a tourist community, what
22 do the tourists know? We are protected classes here.
23 Not only do we have a lot of children here and a
24 growing demographic that is going to continue to grow
25 for elderly, we have nursing homes, we have elderly,

1 these are people in protect classes who need to have
2 something special.

3 So I would suspect that anyone who could
4 look at the demographics we have today, versus what we
5 had 20 or 30 years ago, and the demographics that we
6 all know are happening because we are keeping track of
7 the growth here, realize that, as to those protective
8 classes, be they children, and by the way, we also have
9 a prison here, which has people locked up, so we have a
10 lot of concerns we have to have, so anybody who can
11 say, not an expert but anybody who is a public official
12 who can get up here and say, I believe, it was a fast
13 moving event, that, oh, no problem, then that raises a
14 serious, serious concern for me about this whole
15 process that I think we need to be concerned about
16 because one of the things I'm learning is about the
17 NRC's antipathy for having interventions, even in I
18 think it was the State of New Jersey.

19 So I'm saying that here I think we have a
20 lot of special circumstances, not only because we have
21 one of the oldest plants but because we have a process
22 here which is starting to raise a concern on my part.
23 I spent 35 years as a trial lawyer, and I don't want to
24 talk about resumes, but I'll tell you, every once in a
25 while, I hear something that concerns me, and that

1 concerns me as to the process, as it applies to what we
2 are seeing in all of the initial material we are
3 seeing.

4 Now let me repeat one more time I want to
5 see the plant continue, I am in favor of nuclear
6 energy, but I'm also in favor of making sure that if we
7 have the oldest plant, that we have the safest and best
8 plant. And if people are going to be so out of touch
9 with what's happening today, then I'm concerned for the
10 view that this agency is going to have in
11 prognosticating what's going to happen in the next 10
12 to 20 years. And I suspect that everybody out here,
13 whether you are pro nuclear or not, whether you are pro
14 plant or not, has that same feeling, that we have to
15 have a fair process with issues that are not
16 predetermined by some national policy but are going to
17 say that we are going to live here with the safest
18 possible plant, and that we are going to have an open
19 hearing and we are going to have an opportunity to test
20 all these hypotheses.

21 And then hopefully we'll be one of those
22 situations where there will be interventions so that we
23 can have people test the type of comments I heard here
24 tonight about the ability of us to get out of here
25 safely on one road. Keep in mind, to the east we have

1 the ocean, to the west we have 24 miles of Miles
2 Standish State Forest. Somebody might want to take a
3 look at that map. We have, to the south, we have a
4 bridge, even with our governor's new fly over, which is
5 a problem, and we know, by the way, don't we, that the
6 plume goes north. That means everybody is going north
7 with the plume so, as a practical matter, you are
8 right.

9 You may try to get around this by saying
10 that we are going to have some type of safety in place
11 or some type of shelter in place, then we have to spend
12 a lot of time talking about what that shelter place is
13 going to be. Not for us because the truth is we are
14 going to have to worry about getting our children, and
15 our elderly and our protected classes out of here
16 before we worry about the rest of us, but we have to at
17 least take care of those children and the elderly
18 because what we do for the least of our children we do
19 for me, to quote the Bible.

20 So I'm saying that why I'm getting up here
21 speaking tonight and why you hear some agitation in my
22 voice is because I am very, very concerned now about
23 this process and I think we all should be. And this
24 should not turn out to be a referendum on whether we
25 are pro nuclear or anti nuclear, whether we are pro

1 plant or not plant, I think everybody can agree on one
2 thing, we want to have the safest possible plant. And
3 if it's dollars versus that, and that's what it comes
4 down to, then that's really where the rubber is going
5 to hit the road in this, the rubber is going to hit the
6 road in hoping that this agency is going to do the best
7 that they can to make sure that we and our children are
8 protected to the maximum amount and that they are going
9 to have a process that's going to allow us all to
10 participate and allow us all to test the hypotheses
11 that they are working on. Thank you very much.

12 MR. CAMERON: Thank you, Jerry, you raised
13 some serious issues, obviously, and we've heard about
14 issues of emergency planning. And I don't know if this
15 is going to make any difference in terms of what your
16 perception is of what the NRC said, and I don't want to
17 get into a debate on this, but I just want Trish to
18 perhaps just reiterate what she said, which I don't
19 think she was saying that everybody is going to be able
20 to be evacuated.

21 MR. BENEZRA: The issue was not whether
22 everybody would be evacuated, the issue was that a
23 question was asked and the answer was a short answer,
24 and then the question was asked again, in a fast moving
25 situation, can we evacuate? And the answer was yes. I

1 think the record will reflect exactly what the question
2 was, what the answer was, what the context was.

3 MR. CAMERON: And this may, this doesn't,
4 this doesn't minimize the issue, the importance of the
5 issue you raised or finding the best way to handle
6 this, but I still would like to give Trish another
7 opportunity to just reiterate what you said or at least
8 to clarify that.

9 MS. MILLIGAN: For clarification purposes,
10 there is a lot that goes into emergency planning, it's
11 not just evacuation, it's a combination of evacuation.
12 There is sheltering, you hear that referred to often as
13 sheltering in place. In a fast moving event, for
14 example, you would use a combination of evacuation
15 and/or sheltering, some combination thereof, and the
16 question was did I believe or the NRC believe that the
17 public health and safety was adequately protected
18 during a fast moving event and, yes, with the emergency
19 plans in place, the shelter and evacuation plans that
20 are in place, yes, in a fast moving event, the public
21 health and safety can be protected, and that's what I
22 said.

23

24 MS. MILLIGAN: Yes, a licensee has the
25 evacuation time estimate studies and the local

1 community or the state, I'm not sure in your area who
2 is responsible for it, has developed the traffic
3 management plans.

4 (Inaudible)

5 MS. MILLIGAN: They are updated on a
6 regular basis.

7 MR. CAMERON: Okay, thank you, Jerry, for
8 just emphasizing the issue again and maybe you guys
9 could talk a little bit about this afterwards, if Jerry
10 is amenable to that.

11 I just want to get one other thing on the
12 record for the sake of Janet Humes who asked the
13 question about epidemiology, and I think we are about,
14 I think we have covered everybody tonight, but at least
15 one piece of data, and I think, Trish, you are going to
16 be the one who is going to put the data on the record
17 for us. Had there been any epidemiology studies in
18 relationship to Pilgrim?

19 Rich, you are going to do it? All right.
20 This is Mr. Richard Emch, NRC staff.

21 MR. EMCH: Good evening. My name is
22 Richard Emch, I'm a health physicist, I work for the
23 U.S. Nuclear Regulatory Commission. Some of the
24 information I want to share with you tonight, I was
25 part of the audit team, the environmental audit team

1 that we had, that came up to Pilgrim the week before
2 last. We examined records from the plant, effluent
3 records, environmental monitoring records, we toured
4 the plant, looked at their monitoring methods and their
5 systems. I also met with officials from the Department
6 of Public Health for the State of Massachusetts, so I'm
7 going to share some information, just to give you an
8 idea.

9 Our review is still underway on these
10 topics, but let's start with a little bit of
11 information. First, effluence from the plant, there is
12 a way of calculating or saying if somebody was exposed
13 to all pathways, what would be the, we call it the
14 maximally exposed individual. This is somebody who is
15 eating, living right near the plant, eating all their
16 food from a garden there, eating beef, cattle,
17 whatever, all the various pathways, and the maximum
18 calculation for a person like that, at the Pilgrim
19 site, is approximately 2.5 millirem per year. Now, of
20 that, most of that dose calculation is from something
21 we call direct radiation, it's from something we refer
22 to as turbine-shine or nitrogen 16 shine.

23 That's nitrogen 16 radiation that comes
24 from the turbine and it bounces off the atmosphere, and
25 it really is only an issue very, very close to the

1 plant. If we take away that component and we talk
2 about just effluence, the doses are well below one
3 millirem per year. In addition to that, there is an
4 environmental meteorological monitoring program that
5 the NRC inspects, there is also environmental samples
6 that are taken by the State of Massachusetts. They do
7 analyze them on their own in their own laboratory, in
8 addition to what the NRC, in addition to what the
9 licensee analyzes.

10 There are NRC inspectors, that Rani was
11 talking about earlier, that come out from headquarters.
12 They evaluate, they inspect the process by which the
13 licensee controls effluence, and so we are talking
14 about something less than one millirem per year. The
15 dose from living in the United States, on planet earth,
16 approximately 360 millirem per year for each of us. A
17 big part of that is from building materials, from the
18 granite, you know, from granite materials in the
19 ground, from cosmic radiation, from naturally occurring
20 radioactive materials in our bodies, and that's a major
21 component of it, and then there is also a component,
22 when you go to the dentist or something like that for
23 procedures.

24 If you fly on an airplane, you get some.
25 If you live in Denver, you get a lot more cosmic, for

1 instance, than you do at sea level, so what I'm trying
2 to explain here is we are talking about how much you
3 get from a nuclear power plant or from nuclear energy
4 altogether, less than one millirem. We talked about
5 what you get from background and other sources, 360
6 millirem. So this is part of, I'm just trying to put
7 this in some perspective for you folks.

8 Now when I went to visit and I went and
9 had meetings with the Department of Public Health for
10 the State of Massachusetts, I asked them about various
11 studies, I asked them if they had any concerns and I
12 was told that, no, they don't have any concerns about
13 it. They do not believe there is any excess cancers or
14 illnesses from radiation from Pilgrim Plant, they
15 stated that flat out.

16 MR. CAMERON: Okay, I--

17 MR. EMCH: I need to add one more thing.

18 MR. CAMERON: Go ahead.

19 MR. EMCH: We do a lot of work at the NRC
20 to evaluate new studies, new information that's made
21 available, such as the BIRS 7 report. I'm not, I
22 really don't agree with a lot of your characterization
23 of the BIRS 7 report. For instance, the BIRS 7
24 report, there is a theory called the linear non
25 threshold theory that says that there is, it is prudent

1 to assume that there is some risk, some health risk,
2 associated with any amount of radiation exposure. The
3 NRC has had that as a central part of its regulations
4 and philosophies since the beginning. The whole
5 concept of as low as is reasonably achievable is
6 because of that. What BIIERS 7 did is not new, it
7 simply reaffirmed that theory.

8 Now, to go just a little further, we are
9 here to look for new and significant information. If
10 you have studies, if you have information that you
11 believe we need to be looking at as part of our review,
12 I want to see them, we do want to see them. I am happy
13 to seem them, we will look at them, we will include
14 them in the review. Thank you.

15 MR. CAMERON: Thank you, Rich.

16 I just want to emphasize to people that we
17 have heard a lot of concerns about monitoring, how good
18 the sampling is, potential inadequacies tonight. The
19 comments that are going to come in on scoping are going
20 to be publicly available, not just the NRC's analysis
21 of those, and I fully expect citizens, like Mary
22 Lampert, to be submitting written comment that may take
23 us to task in terms of information that was just
24 presented. And rather than getting into perhaps an
25 interminable discussion right now on this, I would just

1 urge people to pay attention to the comments that are
2 submitted on these particular issues.

3 And I'm going to ask Rani to close us out
4 now.

5 MS. FRANOVICH: Thank you, Chip.

6 I just want to take this opportunity to
7 thank you all again for coming out and participating in
8 this meeting, providing some very good comments that we
9 will take back, and evaluate and consider in our
10 review. Thank you for sharing with us your time, time
11 out of your busy schedules, we appreciate it. As I
12 said when I opened up the meeting, it's a very
13 important part of our process, so thank you. I also
14 wanted to remind people that we have an NRC public
15 meeting feedback form, you probably can't see it, but
16 it's a form that was provided to you outside in the
17 hallway as you came into the meeting.

18 If you have any suggestions for how we can
19 improve the conduct of our meetings, things we can do
20 better, things perhaps that we are doing well that you
21 want to mention to us, please take the time to fill out
22 one of these comment feedback forms. Postage is
23 prepaid, all you need to do is fold it, put it in the
24 mail, send it to us, or you can hand it to a member of
25 the NRC staff before you leave tonight. One other

1 thing I wanted to reiterate is that if you have
2 comments on the scope of the environmental review that
3 you think of, even after tonight's meeting, we will be
4 accepting those comments through June 16th.

5 The two points of contact for submitting
6 your comments will be Bob Schaaf and Alicia Williamson,
7 and their e-mail addresses were provided in the
8 handouts for our presentation. So if you would like to
9 talk more with the NRC staff or our contractors about
10 any additional questions or concerns you have, we will
11 be here for a while after the meeting, please let us
12 know, approach us, tell us what you would like to talk
13 with us about, we would be delighted, and thanks again
14 for your time. Good night.

15 (Whereupon, at 9:38 p.m., the hearing
16 was adjourned.)

17
18
19
20
21
22
23
24
25

1
2

Mary Lampert
www.pilgrimwatch.org

PILGRIM WATCH

Public Safety Issues - Pilgrim NPS

148 Washington Street
Duxbury, MA 02332
Tel. (781) 934-0389
Fax (781) 934-5579
lampert@adelphia.net

Recommendations to minimize impacts from Pilgrim:

1. Szal: Resource agencies, in concert with the permitting agencies, should consider further evaluation of the intake effects to winter flounder. If effects are found to be substantial, these agencies should determine what steps need to be taken to reduce the impacts of the facility on the winter flounder population.
2. Szal: Because impinged fish from the intake screens are shunted back into the intake, there is a concern that these fish, weakened from impingement, will simply be re-impinged. Permitting and resource agencies should consider requiring an assessment of re-impingement rates to select species of concern. These studies should also assess the need to re-locate the discharge point for impinged fish in order to minimize re-impingement.
3. Lampert: Thermal discharge – temperature is now averaged over an hour; instantaneous measurement should be required.
4. Lampert: Rainbow Smelt should be listed as endangered; impact studies by Chase and the Jones River Watershed must be completed before re-licensing decisions go forward.
5. Lampert: policy statement regarding losses on a square mile basis has not been issued by any of the state or federal agencies. EPA must determine what percent loss is a significant detriment to any population; figure would vary depending on population.
6. Lampert: There appear to be many methods used to determine impact, each with drawbacks. What methods would provide the most reliable results and clearly state and independent analysis should be required to be part of any evaluation assessments.
7. Lampert: Once Though cooling - when EPA ruled that it was allowed for old plants, did they specifically take into account relicensing, operating an additional 20 years - or could it be interpreted that the ruling meant only permissible for running out the current license? What about mitigation techniques currently employed - can we argue that there is a need for a clear demonstration that fish stocking results in breeding - I think that I remember you said that the introduced stock do not breed with the native stock in place - different genetic grouping?

ADVANCE SERVICES
Franklin, Massachusetts
(508) 520-2076

1

Becky Chiu - Vice Chair - Duxbury Nuclear Advisory Committee

Pilgrim, a General Electric Mark I Boiling Water Reactor was built with a faulty containment system. In order to protect the Mark I containment from a total rupture, NRC determined it was necessary to vent any high pressure buildup. As a result, The Direct Torus Vent "system" was installed at all Mark I reactors. This "system", is an extension of the containment ventilation system installed as a plant upgrade in the 1980's. It bypasses the standby gas treatment system (SBGTS) filters normally used to process releases via the containment ventilation pathway. Operated from the control room, the vent is a reinforced pipe installed in the torus and designed to release radioactive high pressure steam generated in a severe accident by allowing the unfiltered release directly to the atmosphere through the 300 foot vent stack. There is no radiation monitor on the pipe and valves that comprise the DTV line. Venting can result in a "significant" radioactive release. Even a release of on the order of 1 percent of the core's radioactive iodine and cesium would be a very severe event. Reactor operators now have the option by direct action to expose the public and the environment to unknown amounts of harmful radiation in order to "save containment." The purpose of the containment is to provide a barrier between the lethal radiation inside the reactor and the public. As a result of GE's design deficiency, the original idea for a passive containment system has been dangerously compromised and given over to human

control with all its associated risks of error and technical failure.

We want indirect venting –that is allowing air to escape only after it has passed through filters – The wet well pool will not scrub out or eliminate highly radioactive fission products. Unfiltered venting has been judged unsafe by all regulatory agencies outside the United States. The only advantage of direct venting is saving money for the industry at the expense of the population.

EPA has acceptable standards for exposure, in the real world, there is no safe level of exposure to radiation.

Under the Severe Accident Mitigation Analysis (SAMA), Pilgrim's application stated that a filter will reduce by half the amount of radiation that would be released in an accident - HALF is still a major benefit for public health and safety.

The consequences should be calculated and compared with the costs of the filtration system. Mitigation should be focused on the protection of public health, safety and the regional economy, not a cost/benefit for a multi billion dollar industry trying to save dollars. - \$3 million