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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
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PUBLIC SCOPING MEETING
ON ENVIRONMENTAL ISSUES PERTAINING TO
THE LICENSE RENEWAL OF MILLSTONE POWER STATION
UNITS 2 AND 3
+ + + + +
Tuesday, May 18, 2004
Waterford Town Hall Auditorium
15 Rope Ferry Road
Waterford, Connecticut

The above-entitled meeting was conducted
at 7:00 p.m.

C-O-N-T-E-N-T-S

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P-R-O-C-E-E-D-I-N-G-S

7:04 p.m.

FACILITATOR CAMERON: On the record. If we could have everyone come in and take a seat, we'll get started with tonight's meeting. Good evening everyone. My name is Chip Cameron. I'm the Special Counsel for Public Liaison at the Nuclear Regulatory Commission. I'd like to welcome you to the NRC's public meeting tonight.

Our topic for tonight is the environmental review that the NRC is going to do as part of its evaluation of an application that we received from Dominion Nuclear Connecticut to renew the operating licenses for Units 2 and 3 at the Millstone Nuclear Power Station. It's my pleasure to serve as your facilitator tonight. In that role, I'll try to help all of you to have a productive meeting tonight.

I just wanted to cover a couple of things about meeting process before we get into the substance of our discussions tonight. First of all, our format for tonight's meeting is a two part format. Those two parts match the objectives that we have for the meeting.

The first part is going to be two brief NRC presentations to give you some background on the license renewal process and specifically on our environmental review responsibilities. Then we'll go

1 out to answer any questions that you may have about
2 our process. The second part of the meeting is an
3 opportunity for us to hear from all of you a little
4 bit more formally by having those of you who wish to
5 come up here and give us your advice, recommendations,
6 comments, concerns on license renewal generally but
7 specifically on what types of issues we should look at
8 as we do our environmental review.

9 Now, you are going to hear from the NRC
10 staff that we're taking written comments on these
11 issues also. But we are here tonight to meet with you
12 in person. You may hear information tonight either
13 from the NRC staff or from others in the audience that
14 either prompt you to submit a written comment or help
15 to inform your written comments. But one thing that
16 I wanted to emphasize is that anything you say here
17 tonight will count just as much as anything that's
18 submitted in writing.

19 The ground rules for the meeting are
20 fairly simple. When we go out to you for questions
21 after the NRC presentations, I'll bring you this
22 cordless microphone. Just give us your name and
23 affiliation, if appropriate, and we'll try to answer
24 your questions. I would ask that only one person at
25 a time speak so that we can get a clean transcript.

26 We are taking a transcript. Pete is our
27 court reporter tonight. That transcript will be

1 available to the public. It is our record of what was
2 said here tonight. So we want to have a clean
3 transcript, but we also want to give our full
4 attention to whomever has the floor at the moment.

5 I would ask you to try to be brief and
6 concise in your comments and questions solely so that
7 we can ensure that everybody has a chance to speak
8 tonight. When we get to the formal comment part of
9 the meeting, if you could try to confine your comments
10 to five to seven minutes, I think that would help us
11 to achieve the goal of making sure that everybody has
12 a chance to talk.

13 But it's not an iron-clad rule. Some
14 people may go over a little bit. Some people may be
15 under. And there's certainly no obligation to talk
16 for five minutes. I just want to thank you all for
17 being here. And just to emphasize the concept of
18 continuity, this meeting is just one data point
19 tonight.

20 We're going to hear from all of you, but
21 there are NRC staff here from our region, from
22 different parts of our headquarters office. We have
23 some expert consultants here who are helping us to do
24 the environmental review. They will be here after the
25 meeting to talk to anybody who wants to talk to them
26 about any of these issues.

27 The NRC staff will be giving you contact

1 names and numbers. Feel free to call them, email them
2 if you have any questions or comments at any time so
3 that we can maintain a relationship with those of you
4 out here in the community. One administrative point,
5 the fire marshall asked us that if we do have to
6 evacuate this room - and as we pointed out this
7 afternoon, we don't expect to have to evacuate the
8 room - go through these doors on the side instead of
9 trying to go back out that door. So a little public
10 safety message.

11 What I want to do is introduce the NRC
12 staff that will be talking to you. First of all, John
13 Tappert is right here. John is the Section Chief of
14 the Environmental Section in the License Renewal and
15 Environmental Impacts Program at NRC. John and his
16 staff conduct the environmental reviews, not just for
17 license renewal applications that we get in but for
18 any reactor action, an early site permit for example
19 that has to have an environmental review.

20 So that's what John does and his staff.
21 One of his staff is with us tonight to go through the
22 environmental review process for you. Mr. Richard
23 Emch is here. He is the Project Manager for the
24 Environmental Review on the Millstone License Renewal
25 Applications. John has been with the Agency for about
26 14 years. He was a Resident Inspector for the NRC.
27 He was in the Nuclear Navy, in fact, right here in New

1 London.

2 His educational background is, he has a
3 Bachelor's in Aeronautic and Ocean Engineering from
4 Virginia Tech and a Master's in Environmental
5 Engineering from Johns Hopkins University in
6 Baltimore. In terms of Rich, Rich has been with the
7 NRC for about 30 years at this point.

8 He has had numerous environmental and risk
9 management, radiation protection positions within the
10 Agency so he brings a lot of expertise to his
11 particular job at this point. He has a Bachelor's in
12 Physics from Louisiana Tech and a Master's in Health
13 Physics from Georgia Tech. With that, John, I will
14 turn it over to you. Then we'll hear from Rich. Then
15 we'll go out to all of you for any questions that you
16 might have.

17 MR. TAPPERT: Thank you, Chip. Good
18 evening everyone and welcome. For those returning
19 from our matinee session, welcome back. As Chip said,
20 my name is John Tappert. On behalf of the Nuclear
21 Regulatory Commission, I would like to thank you for
22 coming out here tonight and participating in this
23 process.

24 I hope that the information that we will
25 share with you tonight will be useful. We look
26 forward to receiving your comments both tonight and in
27 the future. To begin with, I would like to briefly go

1 over the purposes and agenda of tonight's meeting.
2 Rich Emch is going to give you a brief presentation on
3 the license renewal process.

4 More specifically, he's going to give you
5 a brief overview of the whole process including both
6 the safety and environmental review which will be the
7 principal focus tonight. He will then give you some
8 more details about that environmental review which
9 will assess the environmental impacts associated with
10 extending the operating licenses for Millstone Units
11 2 and 3 for an additional 20 years.

12 Then he'll give you some information about
13 the balance of our review schedule and how you can
14 contact us in the future. Then we get to the real
15 thrust of tonight's meeting which is to receive any
16 comments that you may have tonight. But before Rich
17 gets started, I would like to give you some brief
18 context to the license renewal process itself.

19 The Atomic Energy Act gives the NRC the
20 authority to issue operating licenses to commercial
21 nuclear power plants for a period of 40 years. For
22 Millstone Units 2 and 3, those operating licenses will
23 expire in 2015 and 2025 respectively. Our regulations
24 also make provisions for extending those operating
25 licenses for an additional 20 years as part of a
26 license renewal program. Dominion has requested
27 license renewal for both units.

1 As part of the NRC's review of that
2 application, we will be developing an environmental
3 impact statement. Right now, we're very early in that
4 process in what we call scoping where we seek to
5 identify those issues which will require the greatest
6 focus during our review. This meeting here tonight is
7 an important part of that scoping process.

8 After scoping, we are going to develop our
9 preliminary findings and publish them in a draft
10 environmental impact statement. After that draft is
11 published, we will distribute it and have another
12 public meeting here early next year to receive your
13 comments on our findings. With that as a brief
14 introduction, I would like to ask Rich to give our
15 presentation. Thanks.

16 MR. EMCH: Hello. As John said, my name
17 is Richard Emch. I'm the Environmental Project
18 Manager for the NRC's Review of the Millstone Units 2
19 and 3 License Renewal. I'm a Senior Project Manager,
20 but I'm the Environmental Project Manager for this
21 job.

22 As you can see, there's four basic pieces,
23 if you will, processes involved in the overall license
24 renewal process. The very first one is the safety
25 review. The safety review is conducted by a number of
26 reactor safety experts at the NRC under the lead of
27 Johnny Eads. Those of you who were here for the

1 meeting in February got to talk and hear from Johnny
2 Eads.

3 That review focuses on passive, long-lived
4 components, structures, and systems in the plant. An
5 example of that would be, for instance, the supports
6 for the steam generator. They are not expected to
7 normally be replaced during the life of the plant.
8 They are very passive systems. There's no active role
9 that they play.

10 The safety review does not concentrate on
11 normal operational safety issues, emergency
12 preparedness, security, things like that, not that
13 those aren't important. They are very important. In
14 fact, they are so important that we wouldn't leave
15 them for the license renewal review.

16 Those are every day topics. Those are
17 things that the staff is constantly looking at through
18 inspection processes and things like that, things that
19 are being looked at every day by people like our
20 resident inspectors who are at the plant and that sort
21 of thing. So it's not our intent to talk about those
22 things tonight.

23 Also as part of the safety review, there's
24 a series of plant inspections that are conducted by
25 people from the headquarters staff and the regional
26 staff where they look at documentation. They go out
27 and walk down systems and do things like that. That

1 brings us to the environmental review which is what
2 we're here about tonight.

3 As John said, we're very early in that
4 process. I'm going to be discussing that in a lot
5 more detail as we go along here. The last one on the
6 list here is the Advisory Committee on Reactor
7 Safeguards, ACRS for short. That's basically a group
8 of highly regarded experts in various aspects of
9 radiation protection and reactor safety. They are
10 hired by the Commission themselves as an independent
11 group that looks over the shoulder of the staff and
12 reviews the reviews that the staff does.

13 This is a layout, a schematic of the
14 overall process that we just talked about. You can
15 see the on-site inspection activities. You can see
16 the safety review and the safety evaluation report.
17 Every place you see this splash mark, that's an
18 opportunity for the public to participate in the
19 process.

20 They can come to ACRS meetings. Down here
21 on the environmental review, we have begun the review.
22 We're in scoping activities now which is what John was
23 talking about. This is our scoping meeting where we
24 come out and basically what I'm asking you folks to do
25 is be our local environmental experts, the people who
26 live and work near the plant. We hope that you will
27 be able to give us information about environmental

1 issues that we need to consider in our review as well
2 as you might be able to provide us with information
3 that we are not able to get by other processes that we
4 should include in that review process or in our
5 evaluation.

6 After today, for the rest of the week,
7 we're going to be conducting an environmental audit.
8 We have a team of experts in various aspects of
9 environmental impact from the Los Alamos National
10 Laboratory who are assisting us. We will be at the
11 plant and in the environs of the plant for the next
12 couple of days gathering information to conduct our
13 audit.

14 Once we have gathered all that
15 information, we will draft the supplemental
16 environmental impact statement. It says GEIS here.
17 That's the Generic Environmental Impact Statement.
18 Several years ago the Commission decided that we were
19 going to do a generic evaluation of the impact for all
20 nuclear power plants in the United States for license
21 renewal.

22 What we do is, we do a supplement to that
23 generic impact statement. We do a plant-specific
24 supplement for each plant. That's what we'll be
25 drafting for Millstone here. We'll send it out to
26 everybody. By the way, if you want a copy of it, if
27 you want us to send it to you, there were cards that

1 Jenny and Ellen had up in the front. If you put your
2 name on one of those cards, give us your address,
3 we'll see to it that you get a copy of the draft and
4 of the final when it's issued.

5 Then we'll be back, as John said, in early
6 2005, probably in January, probably in this same room,
7 to talk about what the preliminary conclusions were.
8 We'll also give you folks, again, the opportunity to
9 give us comments about how good a job you think we did
10 or what we might have missed or any information you
11 think we should know about.

12 Finally, we'll have a draft supplement.
13 All of this information, including hearings, feeds
14 into the decision by the Agency about whether or not
15 to accept, to reissue the license, to renew the
16 license. The opportunity for hearings was over on May
17 11. It's important to note that the Connecticut
18 Coalition against Millstone did file a petition for a
19 hearing. That process is ongoing now. Yes, sir.

20 FACILITATOR CAMERON: Let's hold our
21 questions until Rich is done.

22 MR. EMCH: I'll tell you what. Maybe
23 let's try it this way. If you have an actual comment,
24 if there's something you don't understand, I would
25 really just have you go ahead and interrupt me. But
26 if it's going to develop into a comment, like you
27 don't like what I'm saying --

1 MR. BERGER: No, I don't understand what
2 a generic environmental review is. It sounds like
3 some boiler plate that you plug things into. Could
4 you be a little more specific about what it entails?

5 FACILITATOR CAMERON: Could you hold the
6 microphone a little closer? Why don't you maybe
7 repeat it for the court reporter?

8 MR. EMCH: The gentleman's question was
9 about, what is this thing called a Generic
10 Environmental Impact Statement? I'm going to try
11 again to go through that. Several years ago before we
12 started the license renewal process, the Commission
13 looked at the overall process of how are we going to
14 do these reviews.

15 They determined that in order to
16 streamline, to maximize the efficiency of our
17 environmental review process, that we should do a
18 generic look at all of the nuclear power plants in the
19 United States, look at the 92 or so different aspects
20 of environmental impact like entrainment, impingement,
21 heat released into the river, radiation protection,
22 all the various 92 issues, and see, okay, which ones
23 of these are, shall we say, generic? Which ones of
24 these are really the same for all the plants?

25 They are fairly small. We can say, "All
26 right. We can draw an overall conclusion on them."
27 Then we can focus our review on the things that might

1 be different from plant to plant and we can also look
2 to make sure there's no new and significant
3 information that relates to the ones that we decided
4 were the same for everybody. Does that help, sir?

5 MR. BERGER: Yes.

6 MR. EMCH: Okay, thank you. Which brings
7 us to NEPA. In 1969, Congress enacted the National
8 Environmental Policy Act. Basically it mandates that
9 Federal agencies will conduct a systematic evaluation
10 and disclosure of the environmental impacts associated
11 with any major Federal action that might significantly
12 affect the quality of the human environment.

13 The Commission decided that license
14 renewal isn't really a major Federal action. However,
15 the Commission decided that it was appropriate for us
16 to develop an environmental impact statement for each
17 license renewal, and that's what we're doing. One of
18 the things that we'll be looking at as part of this
19 review is, there will be an assessment of alternatives
20 to license renewal including the no action alternative
21 which would simply be not granting the request.

22 All of this is leading to the decision
23 that we have to make which is up here. This is the
24 legal version of it. The simple, Richard Emch term
25 is, the question we have to answer is, would the
26 environmental impact of an additional 20 years of
27 operation for Millstone be acceptable? That's the

1 review standard, the decision standard that we will be
2 working towards.

3 When we have made the decision, if the
4 decision is that that environmental impact would be
5 acceptable, that does not necessarily mean that the
6 plant will operate for an additional 20 years. That
7 just means that they have permission to do it. The
8 actual decision about whether they will continue to
9 operate for another 20 years is probably mainly an
10 economic decision, a need for power decision, and one
11 that's made by the licensee, by Dominion, and possibly
12 by state government authorities.

13 This is a little bit more detail about the
14 actual environmental review process. We received the
15 application from Dominion January 22, 2004. We
16 published our notice of intent to conduct scoping on
17 March 31. This is the scoping process we're in
18 tonight and this week. We'll do the environmental
19 audit starting tomorrow.

20 In early July, if there is any necessary
21 information that we need to have documented by the
22 licensee, we will send them a request for additional
23 information. We'll prepare a draft environmental
24 statement in December. This one again is a splash
25 mark because we'll be asking for comments on that when
26 we send it out to you. Then the final environmental
27 statement will probably be published in July of 2005.

1 We obtain information from a wide range of
2 places for the purposes of this audit. There's the
3 licensee's application itself, the public comments
4 that we're getting from folks like you tonight. We
5 will do a site audit. We'll talk with state and local
6 authorities.

7 We'll talk with permitting authorities.
8 For instance, the NPDES permit is something that is a
9 permit that is issued by the Connecticut Department of
10 Environmental Protection so we'll be talking with
11 them. We'll talk with Social Services. One of the
12 issues that we get into in the review is socio-
13 economics.

14 This slide shows the various areas that we
15 will be looking at. I mentioned socio-economic.
16 There's also environmental justice. There's air
17 quality, water quality, historic resources, hydrology,
18 terrestrial and aquatic ecology, and my personal
19 favorite radiation protection. There's a wide range
20 of issues that we're going to cover. That's why we
21 have experts to cover all those various areas and help
22 us. Plus, we have a fair amount of expertise within
23 our environmental group that works for John.

24 Now, let's talk a little bit about some of
25 the milestones for the rest of the review. As we have
26 said, the scoping period that we're in now ends June
27 4. That means that I'm hoping that whatever comments

1 you are going to provide us about the scoping process,
2 we need to get them by June 4. We'll issue, again,
3 the draft environmental statement in December. We'll
4 issue the final in July of 2005.

5 Now, I'm going to start to talk about how
6 you can get information about the review. I'm the
7 point of contact for the Agency. This is the phone
8 number. You call me, and I will be the one who picks
9 up this phone. All the review documents, the
10 application, and all the correspondence back and forth
11 between us and the licensee can be found at the
12 Waterford Public Library and the Thames River Campus
13 Library for Three Rivers Community College.

14 They are there. We have gone and looked.
15 The people there will be happy to show you the
16 documents. Also, the documents can be found on the
17 NRC's website, www.nrc.gov. If you have any trouble
18 finding the documents on the website, revert to rule
19 number one, call me and I will help you find it.

20 JQ: (Inaudible)

21 MR. EMCH: Sir, I'll tell you what. I
22 believe we have that -- Okay, I'll read it again 800-
23 368-5642 extension 1590. Did I give you a card a
24 little while ago? I'll give you a card that has that
25 number on it.

26 This is how you can get comments to us.
27 One way is to make comments tonight that will be

1 transcribed. Another way is to send them to us in the
2 mail at this address. Another way is to deliver them
3 in person. Our buildings are in Rockville, Maryland.
4 Then the last one, which is one of my personal
5 favorites, is this email address,
6 MillstoneEIS@nrc.gov. That's something that I check
7 every day on the computer. So if you want to make
8 your comments that way, I will certainly receive them
9 that way.

10 We have reached the end of the
11 presentation. First, I want to thank you folks for
12 all coming out and volunteering to be my local
13 environmental experts in this review. I also want to
14 mention, are there any questions that I can answer at
15 this point?

16 FACILITATOR CAMERON: Okay, and I think
17 this gentleman who asked the question about the
18 Generic Environmental Impact Statement, that's exactly
19 the type of thing that we may need to clarify for
20 people. And I thank you for asking it, sir. Could
21 you just tell us your name for the record?

22 MR. BERGER: Marvin Berger.

23 FACILITATOR CAMERON: Hi, Mr. Berger. Do
24 you have any other questions now?

25 MR. BERGER: Yes, when you are renewing
26 the license, it's very similar to starting from
27 scratch because the lifetime is now delineated as 20

1 years more or whatever. It's as if you are just
2 starting from scratch. Are your reviews going to
3 start from scratch?

4 FACILITATOR CAMERON: Okay, when you say
5 "start from scratch" --

6 MR. BERGER: For a nuclear plant as if it
7 were a brand new plant, would you provide the same
8 type of review that you would for a brand new plant
9 and not rely on old, watered down safety reviews that
10 they have general meetings on, generic also, each
11 month or something like that which really frequently
12 doesn't go to the heart of the matter?

13 FACILITATOR CAMERON: Rich, this goes to
14 the quality and the newness, so to speak, the currency
15 of the information that we'll use to look at this.
16 Could you answer that?

17 MR. EMCH: I will say a few words about
18 it. I also will note that several of my colleagues
19 are just leaping at the opportunity to talk about
20 this. I'll try it first though. First, I'm sure we
21 would not agree with your characterization of the
22 original review as being watered down. We did a very
23 thorough review, and we're quite proud of it.

24 But let me just go further. Sir, we're
25 not starting from scratch. This plant was reviewed
26 thoroughly at the beginning and it is under constant
27 review. I mentioned earlier the inspections that

1 happen all the time. There are license amendments
2 that are under review all the time. The Connecticut
3 Department of Environmental Protection does
4 environmental monitoring around the plant.

5 So we're not starting from scratch. The
6 NRC is in a constant mode of keeping their eyes on
7 this plant to make sure that it is still running
8 safely and that it is still meeting all of the
9 requirements that we have for it. So what we're doing
10 with license renewal, as I said, is we're
11 concentrating on some things that will help us take a
12 look at that additional 20 years like the passive
13 long-lived components.

14 FACILITATOR CAMERON: John or Frank,
15 anybody want to add something to that?

16 MR. TAPPERT: Yes, mostly just to agree
17 with Rich. It's not starting from scratch. In fact,
18 one of the fundamental principles of license renewal
19 is that the current licensing basis, the regulations
20 which are currently governing the operation of the
21 plant will continue forward from the first 40 years to
22 the first 60 years. So those continue to be in place.

23 Going back to your concern about the
24 Generic Environmental Impact Statement, we had a
25 comment in another meeting where a guy was saying, "I
26 don't take generic drugs. I don't use generic soap.
27 I don't want a Generic Environmental Impact

1 Statement." Perhaps the name is a little misleading
2 because it's not an inferior brand of review.

3 What we try to do is we try to be smarter
4 about what we do. There are certain issues which are
5 the same at all power plants across the country.
6 Radiation protection programs are very similar at
7 every plant across the country so we have assessed
8 them once generically. The same thing, you have bird
9 strikes on power lines. They are very similar at
10 every plant across the country.

11 What that allows us to do is it allows us
12 to focus on those issues which are unique to each
13 facility; endangered species or the impacts of the
14 cooling water system. Those are unique to Millstone.
15 And that's what we're going to spend most of our time
16 looking at.

17 For the ones that we looked at
18 generically, we don't just take them off the table.
19 What we do is we say, "We found a generic conclusion
20 which we think applies everywhere." If there's any
21 new and significant information here which challenges
22 that assessment, then we'll go dig deeper into that
23 particular issue. You want to get in here.

24 FACILITATOR CAMERON: Could you just talk
25 to Mr. Berger's question about what new and original
26 information is brought to our review of license
27 renewal? He's worried that we were going to perhaps

1 be using old information or watered down.

2 MR. BERGER: The point that I wanted to
3 make is, I wanted you to start from scratch because
4 what it means is you take a broader and more intensive
5 look at things than you do in monthly meetings and
6 things like that. I have sat in on a lot of monthly
7 meetings back in the days when I was working. A lot
8 of things just don't get addressed in any depth.

9 When you are renewing the plant, you have
10 a lot of information to draw on. I don't deny that
11 and you should draw on it. But you should take an
12 intensive look as if it were a new plant and look at
13 every issue very intensively rather than as if it's an
14 update of a monthly meeting.

15 MR. TAPPERT: Right. And I would say to
16 that, we agree with that. We do want to take an
17 intensive look. But we want to take a smart look. We
18 want to look at the areas where we get the most
19 benefit from our review.

20 For license renewal on the safety side,
21 those elements are these passive, long-lived
22 components, these components which don't get looked at
23 perhaps as much as active components such as valves
24 and pumps and stuff which you operate every day. So
25 we're taking a smart look at those systems. It's the
26 same thing on the environmental side. We're looking
27 at those particular issues which are unique to the

1 site.

2 FACILITATOR CAMERON: Thank you. Let's
3 see if anybody else has a question. Yes, sir. Please
4 give us your name and affiliation if you have one.

5 MR. STEINBERG: Michael Steinberg. I have
6 a few questions. The first one is, has the NRC ever
7 thus far denied a relicensing application? Number
8 two, has the NRC or its predecessor, the Atomic Energy
9 Commission, ever denied an initial license application
10 for a nuclear power plant? My third question is, has
11 any reactor thus far operated for 40 years or more?

12 FACILITATOR CAMERON: Rich, I think that
13 as part of your answer to Michael's question you
14 perhaps might explain a little bit about how our
15 licensing process works and what happens to license
16 applicants who might not be able to meet our
17 requirements.

18 MR. EMCH: Help me if I don't catch them
19 all. The first question, have we denied any license
20 renewal applications? No, all of the ones that have
21 actually been submitted that have gone all the way
22 through the process have been approved. Now, there's
23 a couple of things here. First off, licensees are
24 fairly smart, sophisticated organizations.

25 They run nuclear power plants. They are
26 aware of what the requirements are that we are going
27 to be looking at. So they are going to make sure that

1 they are well prepared when they do come in. When the
2 application does come in, the fact is that we haven't
3 turned any down but we have adjusted some of them. We
4 have said, "Hey, you need to do this or you are going
5 to need to do that or you are going to have to include
6 this program or include this system or structure in
7 your program."

8 So there have been adjustments made. But
9 in the end, they have been able to adjust to what we
10 have told them. And in the end, they got their
11 license renewal. So that's the answer to your first
12 question.

13 Number two, has the NRC ever turned down
14 any application even we're talking 40 years back?
15 Have we ever turned one down? I have been with the
16 Agency 30 years. I don't know that we ever flat out
17 sent a letter to anybody and said, "No, we're turning
18 your application down." I know of several plants that
19 got started in the process. From the questions that
20 we were asking, when they discovered that it wasn't
21 looking very good, they dropped out. They decided to
22 stop the process. I don't think we have ever flat out
23 told anybody no.

24 FACILITATOR CAMERON: Barry, did you want
25 to add something to Rich's comment?

26 MR. ZALCMAN: Just as Rich was pointing
27 out, we got very close to making a decision that

1 perhaps one site was not suitable for a nuclear power
2 plant. In the case of Burlington, which was outside
3 of the Philadelphia area - and realize this was in the
4 siting process as opposed to a license renewal process
5 - that site because of population demographic
6 characteristics was probably going to be found to be
7 unsuitable.

8 The plant now, I think, had been relocated
9 to the Salem-Hope Creek area. So there are four units
10 in that vicinity originally planned for two. So in
11 that situation, it's very close to the case that you
12 are characterizing. The Agency at that time did not
13 look favorably on granting approval for that site to
14 be constructed.

15 MR. EMCH: Okay, the third one, I'm sorry.

16 MR. STEINBERG: Is the reactor --

17 FACILITATOR CAMERON: Let me bring this
18 out to you, Michael.

19 MR. EMCH: Oh, did anybody make it 40
20 years? I do not believe so. Mike says that he thinks
21 Big Rock Point went for 39. That probably was the
22 record. I don't believe anybody has quite made it 40,
23 no.

24 FACILITATOR CAMERON: Other questions from
25 any of you folks before we go on? JQ, do you have a
26 question? It looks like you have a question. Please
27 introduce yourself.

1 JQ: My friends call me JQ. I was just
2 wondering as far as the present, any local economic
3 study surrounding the power plants? There's algae
4 presently. Is that discussed at all? I know that has
5 nothing to do with license renewal directly but just
6 an environmental concern.

7 FACILITATOR CAMERON: Okay, I think you
8 hit two points there. One was socio-economic. One
9 was algae which is the biota. We heard a presentation
10 today of an economic study that we will be sure that
11 we get you the site for that. In terms of the biota,
12 Rich, can you talk a little bit about that?

13 MR. EMCH: We'll be looking at aquatic
14 and terrestrial ecology including the biotas. We'll
15 be looking at socio-economics. The reviews generally
16 are focused on the things that are going to be the
17 biggest impact, where the plant might be having the
18 biggest impact. Usually they are very focused on
19 threatened and endangered species, but we do look at
20 other species as well, yes.

21 FACILITATOR CAMERON: We're going to get
22 you copies of the economic study. We'll direct you to
23 the person to get those for you. We'll do that after
24 the meeting. Yes, ma'am.

25 MS. KEATING: I'm Julie Keating, a
26 Waterford resident. I have a question about, should
27 this be renewed? There seems to be a problem now with

1 what to do with spent fuel. Is all of that being
2 taken into consideration? I'm sure it's being taken
3 into consideration. But that seems to be an issue at
4 the moment. It seems like it would just get much
5 bigger if this continues to go on. I'm talking about
6 Yucca Mountain, it being available or not being
7 available at the moment or if it will really be here
8 ten years from now.

9 FACILITATOR CAMERON: Okay, Rich, how is
10 --

11 MR. EMCH: I understand.

12 FACILITATOR CAMERON: Good.

13 MR. EMCH: Actually, your first
14 characterization, an issue of the moment, is the
15 correct way to focus it. We regard it as this storage
16 of spent fuel is a today issue, something that needs
17 to be dealt with today and on an ongoing basis
18 throughout the rest of the license and throughout the
19 renewal period.

20 Basically, this plant stores spent fuel in
21 spent fuel pools. They have plans to store it in what
22 we call an independent spent fuel storage
23 installation. I believe it's the Connecticut Siting
24 Council. They have an application in before them now.
25 They want to build facilities to store the fuel in
26 what we call dry casks, big storage casks. So that's
27 what their plans are.

1 The Commission has made a decision, has
2 concluded that that kind of storage, either in the
3 pool or in the cask, is safe even once the plant is
4 shut down for 30 plus years after the plant has shut
5 down. And we have what's called a Waste Confidence
6 Rule. The Commission is confident that if it's not
7 Yucca Mountain, another facility will be ready to go
8 when it's needed at that time.

9 FACILITATOR CAMERON: Do you have a
10 lingering question there? Does that answer it?

11 MS. KEATING: That's fine.

12 FACILITATOR CAMERON: Let me just point
13 out that although there have been socio-economic
14 studies done, those studies will be considered by the
15 NRC in its review of socio-economic impact. That will
16 be in the Draft Environmental Impact Statement. But
17 there does exist, we heard today, some economic
18 analyses already. But the NRC will have to consider
19 those in doing the Draft Environmental Impact
20 Statement. Yes, sir.

21 MR. SCHWARTZ: Hi, Douglas Schwartz. My
22 comments are generic, not specific to the Millstone
23 application. The document that's online now, is that
24 the draft of the draft? It's a 212 page PDF file.

25 MR. EMCH: What's on the website now is
26 the licensee's application.

27 MR. SCHWARTZ: Okay.

1 MR. EMCH: When we have published our
2 draft, it will be on the website as well.

3 MR. SCHWARTZ: My only area of concern -
4 and I grabbed your document off the back table - is
5 about the security enhancements since 9/11. It says
6 here, "Installation of additional physical barriers."
7 That's one of the questions I have. As we know,
8 nuclear plants on the east coast have been targeted by
9 Al-Qaeda from the air.

10 This is the intelligence which is out
11 there. We discussed that the last time you were here.
12 My question is about the spent fuel pool here but it's
13 generic to the other ones around the country. Are
14 there physical barriers in place now which is pretty
15 cheap and quick and easy to do to prevent a truck bomb
16 from making a mess of one of those?

17 MR. EMCH: Well, for starters, the deeper
18 you get on that question, the less capable I am of
19 answering.

20 MR. SCHWARTZ: Okay, I don't want an
21 answer. I just want to make a comment then. I would
22 hope that's the case. I would hope that the level of
23 security is comparable to that which we see around
24 Federal buildings and embassies and that kind of
25 thing. I don't need an answer to that.

26 MR. EMCH: One thing I was going to
27 mention to you -- We're you here for the afternoon

1 session today by any chance?

2 MR. SCHWARTZ: No.

3 MR. EMCH: Actually, one of the presenters
4 in the afternoon session was a General from the
5 Connecticut National Guard. He made a very extensive
6 presentation about the things that Millstone and the
7 National Guard are doing, have done to bolster
8 security around Millstone. That will be in the
9 transcript. You might find that interesting when it
10 comes out.

11 MR. SCHWARTZ: Okay. One thing - and I
12 don't need an answer to this either - I find upsetting
13 is, in your document I got off the table, it talks
14 about how the NRC is working with Federal agencies to
15 prevent an airborne threat and that pilots who circle
16 or loiter above nuclear power plants can "expect to be
17 interviewed by law enforcement personnel." I don't
18 think that's going to stop any terrorists.

19 We also spoke last time about the concept
20 of federalizing security because Connecticut - and I
21 don't know about other states - the legislature has
22 been negligent in not authorizing the guards here to
23 carry automatic weapons. I know the guards and police
24 are frustrated that they have probably lesser weapons
25 than the terrorists have.

26 In the application online, I did a keyword
27 search for the words "terrorist" and "attack" and they

1 are not in it. There is one endangered species that's
2 not in it. That's us, human beings. I found the
3 document absurd. We are worried about proximity of
4 National Register listed buildings and neighborhoods
5 and things like that when we know we are under active
6 attack. We know that once Al-Qaeda targets something,
7 they keep coming back until they complete their
8 mission.

9 I would hope that somebody from our local,
10 our state, and our Federal politicians, none of whom
11 seem to be doing much of anything about this -- They
12 don't want to step on anybody's toes. That's the
13 nature of politics. Our Administration isn't doing
14 anything because it might incur some economic
15 disruption.

16 The notion that we can't establish a no-
17 fly-zone with a missile defense system above every
18 nuclear power plant I find absurd because basically we
19 have a no-fly-zone above every airport in the country
20 and there's selective access to it. You just can't
21 just go wandering in there. I think it's very simple.
22 I don't think it's very expensive. I think the rate
23 payers would gladly bear that burden.

24 FACILITATOR CAMERON: Sir, can we try to
25 answer some of the questions in a little bit more
26 detail? First, John and then Frank, if you want to
27 add anything, we'll go to you. John.

1 MR. TAPPERT: Just a couple of points
2 there. We share your concerns about terrorism.
3 Obviously, it's been two and a half years since 9/11.
4 A lot has been done to increase the security posture
5 of these plants. They were very well secure before
6 then and even more so now. You have the fact sheet
7 about some of the things we have done. Vehicle bombs
8 was one of the things that we have increased the
9 protection against.

10 As far as federalization of the guard
11 forces, there has been some bills introduced in the
12 Congress to that effect. They have not passed.
13 However Congress determines they want to go in that
14 direction is how we're going to go. We don't
15 necessarily have a dog in that fight, but the security
16 forces in place now are effective. They are well
17 trained. They are designed to defend against a more
18 robust threat with more capabilities than they were
19 two and a half years ago.

20 So a lot has been done to increase the
21 security posture of these plants. You did not find a
22 reference to terrorism in the environmental report.
23 You are not going to find a reference to terrorism in
24 our EIS. The reason for that is that those kinds of
25 issues, as Rich said earlier, are outside the scope of
26 what we're doing.

27 That doesn't mean they are not important.

1 Obviously, they are very important. We don't take
2 them in this venue because we have taken them in other
3 situations. We have done about a third of the plants
4 in license renewal right now. We're not going to wait
5 for the other two-thirds to come in to address these
6 security issues.

7 We're addressing those security issues
8 today at every plant in the country. So it seems a
9 little lop-sided. Why aren't you looking at that?
10 The answer is, we are looking at that but you are not
11 going to see that in this document.

12 FACILITATOR CAMERON: Frank, do you want
13 to add anything at this point? Okay, do you have
14 another question, Mr. Schwartz?

15 MR. SCHWARTZ: Yes, and a comment. My
16 only concern is it's not being done quick enough and
17 that it's going to take another tragedy before
18 something happens. I want to address the issue of dry
19 casks. Number one, I was heartened that the
20 Connecticut Siting Council adequate has to approve
21 adequate, if not superfluous, dry casks apparently.
22 My question is, are those a much safer, from attack,
23 way to store spent fuel than the pool?

24 FACILITATOR CAMERON: Thank you, Mr.
25 Schwartz. Do you want to take that?

26 MR. EMCH: The description that I have
27 heard of the design is that they will be bunkered. I

1 don't know exactly what that means. Even in the
2 article that I was reading in The Day about the
3 hearings for the Connecticut Siting Council, they were
4 talking about the fact that they would be bunkered
5 wherever they were going to store these casks. That's
6 about all I can tell you.

7 As far as an evaluation or an analysis of
8 what's safer from an airplane attack, air attack,
9 whether it would be a pool or a cask, that's out of my
10 area. I wouldn't even begin to be able to talk about
11 that. Do we have anybody here? I don't even know
12 that we're allowed to talk about that quite honestly.

13 FACILITATOR CAMERON: John, do you want to
14 elaborate as much as you can?

15 MR. TAPPERT: Yes, the only point I would
16 make on that is that both storage options are safe.
17 There's fuel that's being stored in spent fuel pools
18 today. There's fuel that's being stored in these dry
19 casks. And they are both safe. I don't know that
20 saying one is safer than the other, that we have a
21 position on that.

22 FACILITATOR CAMERON: Okay, thank you. Do
23 we have other questions at this point before we go on
24 to the comments? Okay, thank you, Rich. Thank you,
25 John. We're going to go to the formal comment part of
26 the meeting. We're going to be listening to what
27 people are saying to us. We're not going to be

1 responding to things that people are saying.

2 We perhaps might clarify a point that we
3 heard sometimes during the second part of the meeting.
4 But basically, we want to hear from you and listen to
5 you. I'm going to go to some local officials first.
6 Then we're going to hear from the license applicant
7 about what their vision is for license renewal.

8 I'm going to ask Mr. Paul Eccard first.
9 He's the First Selectman of the Town of Waterford. I
10 also would thank you Selectman Eccard for the use of
11 the facility too. All right, you might as well come
12 up here.

13 MR. ECCARD: Well, good evening, everyone
14 and certainly welcome to Town Hall and welcome to all
15 the NRC officials that will be working for the
16 remainder of this week and for the remainder of this
17 process. I'm going to comment on a number of specific
18 points.

19 But first generally, I want to say that as
20 First Selectman of the Town of Waterford, I believe
21 that relicensing of the generators is in the best
22 interest of this community. The plants appear to be
23 operating at peak efficiency while maintaining a
24 reliable level of safety for the residents of the
25 region as well as for the people who work at the
26 plants.

27 I am not going to elaborate on the effect

1 of the electricity production for Connecticut, New
2 England. It's substantial and those facts are
3 generally available. And I have commented on those
4 previously. But in this context, I do want to comment
5 that it's also in the best interest of the people of
6 this community that issues of environmental concern
7 receive full, fair, and thorough review.

8 I'm going to say that certainly I'm not an
9 expert in this matter or even this process and neither
10 are any members of the Town Hall staff. In fact, I
11 guess I have to say that it exceeds reasonable
12 expectation and enters into the realm of the amazing
13 to think that a town of 19,000, with our small town
14 limitations, could be expected to understand the
15 information in the application books in the small
16 window of time that's allotted.

17 Therefore, my first specific
18 recommendation is that the NRC consider relicensing as
19 an impact to be mitigated to achieve substantial
20 understanding and acceptance by the host community.
21 I think the community deserves expert advice and
22 opinion as well as the applicant certainly has
23 available to it.

24 Now, on to some of the other specific
25 points of concern. First, many of the issues reviewed
26 are dependent on what occurs within the license
27 period. I'm wondering if I understand correctly that

1 there will be no major upgrades to the power plant
2 that constitutes "refurbishment." Does this mean that
3 major refurbishments are ongoing or will occur prior
4 to 2015? Do improvements made before relicensing
5 approval require the same level of scrutiny as
6 refurbishments anticipated during the extended license
7 period?

8 Second, the fact that the Millstone Point
9 Station has not received a renewal of the discharge
10 permit from the Department of Environmental Protection
11 is of considerable concern. Section 4.2 was all but
12 avoided due to the lack of this extension and the
13 reliance on a prior permit. In 1993 and again in
14 2001, Millstone Point Station was required to prepare
15 studies on cooling system alternatives.

16 These were prepared and submitted to the
17 Connecticut Department of Environmental Protection.
18 The conclusions of the 1993 study are included in this
19 environmental report, but the results of the 2001
20 study are not. While the town is continuously
21 concerned about the plant's impacts on the fisheries
22 of Long Island Sound, the installation of cooling
23 towers on this site has broad aesthetic as well as
24 land use implications.

25 It is essential that the approval by the
26 Department of Environmental Protection of the NPDES
27 renewal application occur prior to granting the

1 application for relicensing in my view. This concern
2 is further reinforced by the fact that the plant
3 operates at variance with the Clean Water Act as
4 approved by the Commission of the Connecticut
5 Department of Environmental Protection.

6 I want to know what the ramifications on
7 relicensing application are if Dominion Nuclear
8 Connecticut and the Connecticut Department of
9 Environmental Protection fail to resolve this
10 important outstanding issue. The outstanding issue on
11 renewal of the discharge permit is not limited to
12 thermal discharge. Although not described in Section
13 4, the issue of the impact of the plant on the
14 Flounder population is the focus of a disagreement
15 between Dominion Nuclear Connecticut and the
16 Department of Environmental Protection.

17 Included in Chapter 2 on page E-2-9,
18 Dominion Nuclear Connecticut identifies that the issue
19 is with the Marine Fisheries Division of the
20 Connecticut Department of Environmental Protection
21 over certain modeling assumptions. More troubling is
22 the statement that these matters will be dealt with as
23 part of the renewal process with seemingly no
24 connection to the renewal process or none that I have
25 yet found. I want to know how this disagreement will
26 be addressed.

27 Next, as the values of Millstone Point

1 Station continues to decline, real estate taxes on
2 housing will increase at an ever increasing rate.
3 Page E-2-24 has this concluding statement by the
4 applicant. "It is also logical to assume that
5 Millstone Point Station during the license renewal
6 period would provide stable, predictable tax revenues
7 for the Town of Waterford."

8 Page E-4-29 indicates that Dominion
9 Nuclear Connecticut does not anticipate any related
10 tax increase driven changes to off-site land use and
11 development patterns. Well, I am here to say is that
12 the impact of Millstone Point Station on tax revenue,
13 infrastructure installation, and the overall level of
14 service in Waterford is different than any other
15 community in the State of Connecticut.

16 In fact, Millstone Point Station has been
17 the dominant tax payer for over a generation, bringing
18 real estate taxes to an artificial low and thus
19 attracting retail and commercial development at a
20 break neck pace, straining the ability of the town to
21 provide essential services and ramping up the size and
22 responsibility of this government well beyond what
23 would be normally available in a 19,000 person town.

24 Now, on the down side, deregulation has
25 suddenly removed two-thirds of the value of Millstone
26 Point Station. We are left struggling to adjust and
27 maintain a stable community. The point is, the

1 applicant's analysis of this, in my view, is
2 simplistic and indicative of an outsider's lack of
3 understanding of the profound impacts the nuclear
4 power station has had, continues to have, and will
5 have on Waterford for a very long time.

6 The authors of that particular conclusion
7 did not speak with this First Selectman. It seems to
8 me that their conclusions are a demonstration of a
9 poor appreciation for this proud New England town. We
10 were incorporated on October 8, 1801. Thomas
11 Jefferson was President then.

12 In the year of 1814, the tax revenue for
13 Millstone was the largest single taxpayer in the Town
14 of Waterford based on farmland and a quarry. We know
15 Millstone's tax effect and its importance. We have
16 known it for a very long time. Therefore, I ask the
17 NRC to take a serious look at the host community's
18 concerns in this area and look at those factors during
19 the relicensing review process.

20 Fifth, the impact of the implementation of
21 additional security - although I have heard and I
22 understand that that's outside the relicensing process
23 - is not assessed in the application nor is the
24 potential for a terrorist attack that would result in
25 a severe accident. So as a derivative of the question
26 I heard a gentleman ask earlier, will the NRC consider
27 these changes?

1 Dominion Nuclear Connecticut appears to be
2 saying in their application that if an accident of
3 equal proportion to Three Mile Island occurred, they
4 would not intend to do any recovery of the plant.
5 Therefore, it did not need to be considered during
6 relicensing. I cite for that page E-4-41. I want to
7 understand this better. I anticipate the Nuclear
8 Regulatory Commission will work with us to understand
9 this conclusion.

10 Sixth, issues of current land use of the
11 property include a fill pile on Gardener's Wood Road.
12 This pile was determined to contain materials of
13 concern. What will occur with this pile if
14 relicensing is approved? The town should receive
15 information on the potential impacts of anything in
16 that fill pile that could occur to the people using
17 the adjacent play fields.

18 Seventh, does Millstone Point Station
19 sample the sediments in Jordan Cove? Are there
20 radioactive deposits identified in these sediments?
21 What are they and in what quantity do they exist?

22 Eighth, the license renewal process
23 concerns me in that it fails to include a description
24 of the changes that have occurred since the initial
25 license was issued; things like the harvesting of
26 shellfish from Jordan Cove, which has been
27 conditionally open, and the impact of the installation

1 of a new water line to the site and the result in
2 changing consumption rates. I anticipate that both of
3 these changes and conditions will be carefully
4 explored during this process.

5 Hopefully, and I'm confident that if they
6 will, these items will be addressed and others that
7 people have concerns about will be explored in greater
8 detail in the upcoming months. Certainly, I pledge
9 that I will work with you, meaning the NRC, to achieve
10 a full, fair, and therefore acceptable level of
11 environmental review. As I said, we have been here a
12 long time. Waterford will be here long after the
13 relicense plant closes. I want to work to make sure
14 there's a safe and healthful place for a long, long,
15 long time. Thank you.

16 FACILITATOR CAMERON: Thank you, First
17 Selectman Eccard, for those specific comments and
18 recommendations. Next, we are going to go to Janet
19 Dinkel Pearce for her comments. Then we will go to
20 James Butler and Rob Arena. Janet, why don't you come
21 on up here?

22 MS. DINKEL PEARCE: Thank you. As you
23 heard, my name is Janet Dinkel Pearce. I am President
24 of United Way of Southeastern Connecticut. United Way
25 covers all of New London County and its 255,000
26 residents. As you probably know, United Way is
27 committed to bringing organizations together to help

1 find solutions to our community's most pressing
2 problems.

3 Something you may not know is that our 98
4 programs that we fund directly impact nearly 140,000
5 people every year. These funded programs are at
6 agencies such as A Moveable Feast, Riverfront
7 Children's Center, Visiting Nurse Association, and
8 Literacy Volunteers. The needs of our community
9 continue to change and evolve. It is through these
10 programs that we collectively unite to help our
11 neighbors.

12 Having said this, it is probably apparent
13 that I know absolutely nothing about operating a
14 nuclear power station. Nevertheless, I am honored to
15 be here tonight and speak about the license renewal
16 applied for by Dominion Resources for the Millstone
17 Power Station. Dominion purchased Millstone in 2001.
18 They have been an outstanding supporter of things in
19 our community, particularly my knowledge is United
20 Way.

21 In fact, Dominion and the Millstone
22 employees have contributed over one million dollars to
23 United Way in the past three years. Additionally,
24 they have loaned us several employees and provided
25 funding for another employee to assist during our
26 annual campaign. Furthermore, their employees are
27 actively involved throughout the community as

1 volunteers. Just at United Way, Dan Weekly last year
2 served as campaign chair and a number of employees
3 serve on our fund distribution panels and our board of
4 directors.

5 Dominion is a community partner with a
6 number of organizations in this region. But I would
7 particularly like to focus on a partner program of
8 United Way; the United Way Labor Food Center. This
9 center, which is located in New London, provides food
10 at no cost to 65 food sites throughout the country.
11 It's a 20,000 square foot building which we bought a
12 few years ago with state funding. Unfortunately, we
13 discovered about three years ago that it needed a new
14 roof at a cost of \$100,000.

15 Dominion stepped up to the plate and took
16 care of that for the Food Center. I should add here
17 that I didn't have in my notes but I can't forget that
18 a number of Millstone employees including the
19 President of Millstone went in and sorted food for
20 several hours that afternoon. That was hard work.

21 I know this license renewal application
22 will be reviewed through the Nuclear Regulatory
23 Commission. But I wanted to share with all of you the
24 multi-faceted role played by this firm and its
25 employees on behalf of every one of us. Thank you.

26 FACILITATOR CAMERON: Thank you very much.
27 We're going to go to Mr. Butler.

1 MR. BUTLER: Thank you. Good evening. My
2 name is James Butler. I am the Executive Director of
3 the Southeastern Connecticut Council of Government.
4 I am here today representing the Council which is
5 comprised of the 20 municipalities of Southeastern
6 Connecticut.

7 Dominion's Millstone Nuclear Power Station
8 provides low cost, reliable energy to the citizens and
9 businesses of Southeastern Connecticut as well as
10 throughout Connecticut, New England. Dominion is a
11 key contributor to the regional and state economy
12 directly employing more than 1,300 persons at the
13 Millstone Station and annually purchasing more than
14 \$68 million in goods and services state-wide.

15 Our local elected officials in the Council
16 Government have a good working relationship with
17 Dominion representatives. Dominion has briefed the
18 Council and its members on a number of critical issues
19 including security precautions, options for storage of
20 nuclear waste, and concerning this current subject
21 application for license renewal.

22 The Council appreciates the fact that
23 Dominion has gone out of its way to keep the lines of
24 communication open so that our elected officials can
25 better respond to questions and concerns expressed by
26 local citizens. The members of the Council Government
27 also recognize the many contributions of Dominion's

1 employees who work at the Millstone Station.

2 First and foremost, these men and women
3 have made the plant a safe and efficient one. In
4 addition, these employees live within the cities and
5 towns of Southeastern Connecticut and contribute to
6 the region's health through countless hours of
7 volunteerism, community service, and other civic and
8 charitable activities.

9 The Southeastern Connecticut Council
10 Government understands the importance of Dominion's
11 application to the Nuclear Regulatory Commission for
12 renewal of the operating licenses at Units 1 and 2 at
13 Millstone. It is important not only for Dominion but
14 also for the future of the Southeastern Connecticut
15 region. Barring any regulatory issues uncovered
16 during the scoping process, the Council Government is
17 in support of this application. Thank you.

18 FACILITATOR CAMERON: Thank you, Mr.
19 Butler. Mr. Arena.

20 MR. ARENA: That's me. I'll hold my
21 comments for now.

22 FACILITATOR CAMERON: Okay, thank you.
23 I'm going to ask Steve Scace from Dominion, who is the
24 Director of Nuclear Safety and Licensing, to come up
25 here and tell us a little bit about what Dominion's
26 rationale and vision is for license renewal. Steve.

27 MR. SCACE: Thank you and good evening.

1 My name is Steve Scace. I am the Director of the
2 Safety and Licensing group at Dominion's Millstone
3 Power Station. I would like to thank the Nuclear
4 Regulatory Commission and the Town of Waterford for
5 offering this opportunity for public comment.

6 Public participation in the license
7 renewal process is important because it helps ensure
8 that the public has a voice on issues that affect
9 them. It provides an opportunity for the public to
10 understand how the process works. And it helps our
11 local community stay abreast of issues affecting the
12 Millstone Power Station.

13 Allow me to tell you a little about
14 Millstone. Unit 2 began commercial operation in 1975
15 and when at full power produces 870 million Watts,
16 that's 870 mega Watts, of electricity. Unit 3 entered
17 commercial operation in 1986 and generates 1,154 mega
18 Watts of electricity.

19 Together, Units 2 and 3 produce enough
20 electricity to meet the business needs and home needs
21 of more than one million Connecticut homes and
22 businesses. That's equivalent to nearly half of the
23 electricity used in our state. Millstone produces all
24 of this electricity using nuclear fuel which does not
25 generate the emissions to the air that are typical to
26 other sources of electricity.

27 Renewal of the Millstone operating

1 licensees will continue the benefits our employees
2 provide for the local community. Millstone has
3 approximately 1,300 full-time employees. The annual
4 payroll including benefits is over \$150 million. More
5 than 250 local contractors work at Millstone and live
6 in our community. During our regularly scheduled
7 refueling outages, the number of contractors increases
8 by about 800. Each reactor is refueled once in 18
9 months.

10 During the past two years, Millstone spent
11 over \$170 million in operations in capital projects
12 making vital investments in the future of our station.
13 But the support to Connecticut is not just in terms of
14 electricity and payroll. At Millstone, we care about
15 our neighbors and our community and it shows. In
16 fact, most of our 1,300 employees live with their
17 families in the immediate area around the station and
18 are active in their community.

19 For the past 34 years, I have worked at
20 Millstone and lived with my family within a dozen
21 miles of the station in Waterford, New London, Salem,
22 and Fisher's Island. During that time, I have served
23 on the Salem Board of Finance, the Salem Board of
24 Education, and until recently I was Chairman of the
25 Fisher's Island Board of Education.

26 At Dominion, we work hard to encourage our
27 employees to be involved within their communities. To

1 back up this philosophy, we provide time away from
2 work to get involved with not only the community
3 programs the company identifies but also the programs
4 the employees themselves want to pursue.

5 Our employees serve in a number of roles
6 including mentors and tutors in local schools. There
7 are dozens on local boards and organizations. They
8 even serve in leadership positions with local
9 volunteer emergency service providers.

10 Just one example of our community
11 participation involves a New London elementary school.
12 Last year, Dominion partnered with New London's
13 Egerton Elementary PTO, students from Connecticut
14 College, and the City of New London to construct a
15 much needed playground at the elementary school.
16 Dominion contributed about \$25,000 for the playground
17 equipment and sent a team of employees who spent more
18 than a week constructing this play area.

19 We are proud that our employees gave more
20 than \$340,000 to their local United Way in 2003. As
21 we heard from a previous speaker, since Dominion
22 acquired Millstone in 2001, employee contributions and
23 company donations have provided approximately one
24 million dollars to the United Way alone. The United
25 Way is just one of the many community programs that we
26 are involved with.

27 We want to continue to be a positive

1 influence in our community while we continue to meet
2 Connecticut's energy needs. License renewal will make
3 that possible. That's why I'm excited about license
4 renewal and so are employees. It's because of the
5 great opportunity license renewal provides.

6 It's important for our community to know
7 that the license renewal is an independent, time-
8 tested process. The NRC-led process is extremely
9 rigorous and analyzes not only the physical systems
10 and components at the plant but also the plant work
11 processes and programs.

12 In fact, it took Millstone several years
13 of work, particularly engineering evaluations and
14 environmental analysis, to develop our license renewal
15 applications. Each application contains more than
16 1,500 pages of information. Based on the NRC process,
17 we expect that our applications will undergo up to two
18 and a half years of scrutiny and review and will
19 include multiple opportunities, as we have heard, for
20 public participation.

21 In the United States, about two dozen
22 license renewal applications have been reviewed and
23 approved by the NRC to date. Among them are
24 Dominion's two Virginia stations, North Anna and
25 Surry, whose licenses were renewed in 2003. There are
26 compelling reasons for renewing the Millstone
27 operating licenses.

1 First and foremost, we operate the units
2 with safety always as our top priority. Dominion has
3 earned an international reputation for excellence in
4 safe, reliable nuclear operations. We have six
5 operating units at three locations and more than 150
6 reactor years of operating experience.

7 Our operating record shows that safety,
8 both nuclear safety and personal safety, is our top
9 priority. Multiple layers of safety are designed into
10 our procedures and activities. Extensive training and
11 a focus on safety begins on the first day of
12 employment for every employee. Our work processes are
13 designed to catch issues before they become problems
14 so that they can be addressed in a timely and
15 effective manner.

16 This is a trademark that we are proud of
17 at Dominion. The NRC and the Institute for Nuclear
18 Power Operations have consistently given Dominion high
19 marks for safe operations. Less than two months ago
20 in this room, the NRC provided favorable comments on
21 our safe operation at Millstone in the year 2003
22 during the annual performance assessment meeting.

23 Our local newspaper, The Day, recently
24 recognized Millstone's safety performance and more
25 importantly the entire employee team that makes safe
26 performance its highest priority. This is high praise
27 indeed and not easy to come by. One of the most

1 compelling reasons for renewing the Millstone licenses
2 is Dominion's record for reliable performance and
3 environmental stewardship.

4 Millstone Power Station is good for the
5 environment. Our environmental program is ISO-14001
6 certified which means it meets the rigorous standards
7 of the International Organization for Standardization.
8 We have an on-site Environmental Program Department
9 whose sole responsibility is to assess Millstone's
10 impact on the environment and ensure compliance with
11 environmental regulations.

12 Our on-site environmental lab began
13 studying the aquatic environment around the station
14 even before the first unit went into operation in
15 1970. Over the past few years, we have received two
16 Green Circle Awards from the Connecticut Department of
17 Environmental Protection for environmental
18 stewardship.

19 Let me conclude by saying that Millstone
20 is a stable, sustainable energy source that provides
21 environmental analysis for New England's growing
22 energy needs. Energy reliability is critical for our
23 everyday lives. We need to plan for the future. As
24 our economy and population grow, reliable sources of
25 electricity, including Millstone, will be vital to our
26 prosperity and way of life. License renewal will help
27 ensure that Millstone remains available to meet these

1 future energy needs. Thank you. This concludes my
2 comments.

3 FACILITATOR CAMERON: Okay. Thank you
4 very much, Mr. Scace. Our next three speakers are
5 going to be Marvin Berger and then Geraldine Winslow
6 and then Pete Reynolds. Mr. Berger.

7 MR. BERGER: Hi. Am I coming through
8 okay? I was already informed that my comments are not
9 really relevant to this particular group, but since
10 you sat through three commercials, you might as well
11 listen to me. I want to get it on the record anyway.

12 When Millstone was built before it could
13 operate, a determination had to be made that the area
14 could be safely evacuated in case of a nuclear
15 emergency. Of course, you know that determination was
16 positive. Since then, Waterford and East Lyme have
17 approximately doubled in population. Two gambling
18 casinos and Mystic Aquarium have opened. I-95 which
19 was brand new and relatively little traveled has
20 become not quite a parking lot, but subject to daily
21 slowdowns and stoppages.

22 And because the local roads have not been
23 enhanced any, new housing units have been built along
24 the Boston Post Road and Waterford and, of course,
25 they're been new shopping centers put up. The result
26 is that population and traffic has increased. I don't
27 know whether it's geometrically, but anyway the

1 ability to evacuate the area hasn't even increased
2 arithmetically. It just really hasn't been enhanced.

3 The City of New London, of course, is a
4 separate thing. That was never able to be evacuated
5 really in any emergency and again, we have to define
6 what an emergency is. If you have two days to
7 evacuate, I think every place can be evacuated. If
8 you have three or four hours, then New London is a
9 horrible example, but I think the whole area could not
10 be evacuated.

11 Of course, one example of New London is
12 after the fireworks which is a non-panic situation
13 when they have all the police out, as many as they can
14 get, to try and get the city cleared. It still takes
15 several hours, but New London is just a small part of
16 it. You have Waterford, East Lyme, Suffolk County
17 which has grown enormously. It's in Long Island and
18 prevailing winds, in case of a nuclear accident, run
19 from west to east so Suffolk County is definitely
20 threatened.

21 Anyway, the point I'm trying to make is if
22 evacuation is a problem, then it should be examined as
23 if this was entirely new application, not just for a
24 renewal, but as it were a new plant being built. The
25 whole area should be studied. There should be traffic
26 studies on I-95, Boston Post Road and whatever other
27 roads are considered relevant, the number of

1 slowdowns, how frequency they happen every day and all
2 those various things.

3 Now the availability of emergency
4 personnel to help evacuate people, that's certainly a
5 good question. If they feel threatened, if they feel
6 their families are threatened, how many of them will
7 respond by controlling traffic versus trying to get
8 their families out. There's no way of knowing that.

9 But back when I used to do reliability
10 work in electronic engineering, we used to call it
11 Pareto's Law which said that basically 20 percent of
12 the components cause 80 percent of the problems.
13 That's a dichotomy that prevails everywhere. It may
14 be 90 and 10 or 75 and 25 or 20 and 80, but you can be
15 sure that there will always be a number of people who
16 will not do what's expected of them. These things
17 should figure into any study.

18 I think the situation, the capability of
19 evacuating the area, is very important. Well, it's
20 important to all of us. We live here and it's
21 probably the most important thing that should be
22 studied in the event of a nuclear accident, but also
23 before any renewal is granted, it should be studied as
24 if this was a new plant being built and there should
25 be complete traffic control studies. Thank you.

26 FACILITATOR CAMERON: Thank you, Mr.
27 Berger. Thanks for coming out tonight to tell us

1 about this concerns. Geraldine Wilson.

2 MS. WINSLOW: Winslow.

3 FACILITATOR CAMERON: Winslow. I'm sorry.

4 MS. WINSLOW: Is it this one? Thank you,
5 Nuclear Regulatory Commission for holding this hearing
6 here today. I'm here as a host community citizen
7 begging you not to continue down this dangerous path
8 of producing nuclear electricity in my hometown by not
9 renewing this license.

10 I'd wish to discuss several aspects of
11 relicensing which I believe should be looked at. I'm
12 going to try to stick mostly to the environment which
13 I wasn't aware that was the issue here tonight, but
14 when Dominion in its application promotes nuclear
15 power as being environmentally friendly that to me is
16 just beyond the ridiculous. From fish and other sea
17 kills to mountains of waste, after all, the entire
18 plant must be disposed of when decommissioned.

19 Nuclear plants are anything but clean and
20 to say they don't burn fossil fuel, well that really
21 burns me up too. Fossil fuel is used in mining the
22 uranium, processing the uranium into the fuel. Onsite
23 for construction, there's a lot of fossil fuel used.
24 The energy to operate, perhaps they use their own
25 electricity and at some point, we'll be transporting
26 this waste to a final resting place and that will take
27 a good amount of fossil fuel there.

1 That's just one example of the lies that
2 Dominion tells when they are trying to apply for
3 relicensing. Those plants contribute to global
4 warming and it increases the temperature of the water
5 used in the cooling. One million gallons per minute
6 of Long Island Sound are sucked in and out of that
7 power, each plant, so that would be times two for
8 Millstone. Many compounds, radiological and
9 industrial chemicals like hydrazine, are discharged
10 routinely.

11 The health of the public has not been
12 considered or I'm not sure if it has at this point,
13 but it must be taken into account. As a mother and a
14 citizen, I know all too often the heartbreaking
15 stories of folks who have died and been stricken with
16 cancers and leukemia. People are dying here and they
17 have illnesses that should not be here. I believe it
18 is caused by radiation.

19 I have some information about some of the
20 discharges that come from nuclear power plants. As
21 far as the air, the routine releases, there is no
22 filtering technology that exists for some gases like
23 xenon 135 which decays into cesium 135, an isotope
24 which multiplies, an isotope with a three million year
25 half life. Also routine releases occur into the
26 ocean. Radioactive corrosion products stick to the
27 interior surfaces of the reactor vessels. Some call

1 that radioactive crud.

2 Fission products also enter the cooling
3 water from leaks into the fuel rods. I'm sorry. I'm
4 confused. I'll skip on. There's a maze of more than
5 50 miles of piping through which cooling water
6 circulates. Leaks are bound to occur. In fact, the
7 Nuclear Regulatory Commission allows leaks of up to 10
8 gallons a minute and this is a question I have. As
9 nuclear plants age, the leaks generally increase.

10 Also with a nuclear power plant, some of
11 the discharge goes into the water and that, as well,
12 cannot all be filtered. Tritium, for example, cannot
13 be filtered. Tritiated water, a major byproduct of
14 nuclear power plants, can be incorporated into the
15 cells of the body. Some of the hazards resulting from
16 tritium uptake include mutations, tumors and cell
17 death. Dr. John Gofman, in his most recent report on
18 low dose radiation, says that there is no such thing
19 as a safe dose of radiation and that a low dose
20 received slowly causes as many cancers as the same
21 dose delivered all at once.

22 The nuclear industry often justifies their
23 releases asserting that humans are constantly exposed
24 to natural background radiation. However, while we
25 cannot lower the level of natural radiation, it is my
26 opinion that no one has the right to add manmade
27 radiation on top of it. Any exposure to radiation

1 increases the risk of genetic mutations, cancers and
2 other life-shortening diseases. The short term
3 benefits of nuclear generated electricity do not
4 justify the possible long-term consequences of nuclear
5 exposure.

6 It's time to move forward and tell the
7 public the truth about the failures of nuclear
8 industry. I would like to conclude by saying it's
9 time to consider phasing out these plants and move
10 ahead with combinations of conservation and
11 alternative energies such as gas, wind and solar
12 technologies which are moving forward. If people
13 asked for improved technology, ingenuity and
14 acceptance by the public will rule in a free market.
15 The nuclear power industry should still get on board
16 by keeping up ahead of the times instead of dragging
17 everyone down, insisting that nuclear power works.
18 Those are my comments for today. Thank you.

19 FACILITATOR CAMERON: Thank you,
20 Geraldine. I've asked the staff to talk to you after
21 the meeting about that specific question you had.

22 MS. WINSLOW: Okay.

23 FACILITATOR CAMERON: Okay. Great. Thank
24 you.

25 MS. WINSLOW: I wrote down another
26 question that I came up as I was talking. I guess I
27 go along with our First Selectman asking about if

1 they're going to build the cooling towers before the
2 licensing renewal takes place. I would support that
3 and also I'm wondering how we can judge the
4 environmental impact of what condition Long Island
5 Sound will be in in another 15 years.

6 How can we predetermine that now? We
7 don't know what condition the environment will be in
8 in another 15 years, but we can't go ahead with the
9 license renewal until we get to that point as far as
10 I'm concerned.

11 FACILITATOR CAMERON: I think that
12 probably qualifies as a question, but it's also
13 qualifies as a comment that might be considered in the
14 environmental review too. Thank you. And how about
15 Mr. Pete Reynolds?

16 MR. REYNOLDS: It's hard to follow
17 somebody like Gerry. She's pretty knowledgeable about
18 what's going on. I sit and I listen to Steve Scace
19 and I listen to the NRC and I don't think the people
20 here that are against Millstone are against the people
21 of Millstone. Let me clarify that. There are good
22 people working everywhere. They do all kinds of jobs
23 and the United Way, the amount of money that they get,
24 there's nothing wrong with that.

25 What we're talking about is the way our
26 government has lied to us since Hiroshima actually
27 about how good nuclear power is. They did numbers of

1 tests on rats and stuff. They compare us to rats.
2 Sometimes we're treated like it, but the biggest
3 problem is there are alternative methods out there and
4 we do not need an energy to produce electricity.

5 They said, I think, 50 percent of
6 Connecticut's power is produced by nuclear. I think
7 those figures are a little off. The last I heard it
8 was down from that because Connecticut Yankees closed
9 down and Millstone I closed down. So I think those
10 figures are a little down. They've had co-generation
11 plants start up that's helped produced just as much
12 power as Unit 3 and there's more and more.

13 Nuclear is great if it didn't kill and it
14 does kill people through the radiation. Just to talk
15 about radiation, they just announced that a woman
16 getting a mammogram could conceivably get cancer just
17 from the x-ray of the mammogram to prevent cancer.
18 Now that's a little weird. That's what radiation is
19 about.

20 And it's not cheap. It's not cheap. I
21 worked both at a fossil fuel plant and I worked at
22 Millstone and just the concept of buying a valve at a
23 fossil fuel plant versus the same valve at Millstone,
24 it costs you three or four times as much. So where
25 they get cheap, I don't quite understand. My electric
26 bill is not cheap. It never has been.

27 So barring that, I don't think they should

1 get their license renewal. I have a statement
2 actually in the form of question. In 1997 when they
3 were shut down, each plant had thousands and thousands
4 of things that were supposed to be fixed. As far as
5 I know, this is 2004. A lot of those things still
6 haven't been fixed.

7 The NRC has put out a list of stuff that
8 they would like to see done and if the benefit
9 outweighs the cost, it will get done. If the benefit
10 doesn't outweigh the cost, it won't get done. Now you
11 have another 20 years they want to add onto the life
12 which is 30 years more for Unit 2 and 40 years more
13 for Unit 3. So are we going to be asking the same
14 question in 40 years? I won't be probably, but maybe
15 my kids will. How come they haven't done what they
16 said they would do?

17 Mr. Eccard mentioned the tax base. I
18 can't see how the taxes can go down on Millstone two
19 and three. Unit 1, I can see where they went down
20 because it's no longer in operation. But the value of
21 the plants should be top-notch. They shouldn't
22 deteriorate over a 40 year period because if they
23 deteriorate that means from a maintenance point of
24 view that they're not being taken care of.

25 The value of a house when they do an
26 assessment is based on how it's been taken care of.
27 My house. Your house. Anybody's house. A plant

1 should be the same thing. You shouldn't worry about
2 the tax base because it should stay the same over the
3 40 years. It shouldn't decrease, but as a matter of
4 fact, it should increase right along with the regular
5 property tax.

6 And the other question I was wondering
7 about was the, I think I'm saying it right, GEIS, the
8 environmental impact, the generics of it. They took
9 a generic of all the plants in the whole country. I
10 forget how many there is now, probably a little over
11 100 plants. They are saying that, generically, they
12 all produce radiation. Generically, they all produce
13 leaks. Generically, they all have breakdowns that
14 causes releases to the environment. So, generically,
15 all these plants are bad.

16 All they are looking for, for this license
17 renewal, is if Millstone is worse than the other ones.
18 That's what it seems like to me. The discharge
19 permit, it's been an issue since 1993. It was brought
20 up in 1997. It's been brought up at several meetings
21 of the EPUC, the City Council, the Environmental
22 Protection Agency. They are still operating under
23 emergency discharge.

24 I've had a driver's license for over 40
25 years, I'll say. If I got caught driving without a
26 license, it's not a temporary, it's a permanent
27 license and I don't understand how a state agency can

1 let a business, if it was a hospital or if it was a
2 private business serving liquor, you would have to
3 have permanent license. They've been able to get by
4 with it. I don't understand it.

5 Like I said, the people at Millstone, the
6 jobs and stuff like that, it's hard to say "well,
7 close down a place" because you do lose jobs and in
8 the economy that we have today, it's hard to swallow.
9 But these people at Millstone, I worked with a lot of
10 them. They are smart enough that they can go to any
11 job and do well at it.

12 We can diversify our energy. We can't
13 depend on nuclear. We can't depend on oil. That's
14 for sure. You see the price of gas now. So I think
15 it's time that we looked a hard look, the towns that
16 host these nuclear plants, the towns that host fossil
17 fuel plants. They should push the government which is
18 hard task because they've promised 20 years ago that
19 we'd have a place to put the spent fuel and we still
20 don't.

21 It's the people that make the change, not
22 the government. The people have to change the
23 government, so you have to go to your government and
24 demand an energy policy. Right now, we have piss-poor
25 energy policy in this country. The idea is to drill
26 for oil, drill for oil and there is a lot of other
27 methods. So that's my comment.

1 FACILITATOR CAMERON: Thank you very much,
2 Mr. Reynolds. Our next speakers are going to be first
3 Michael Steinberg. Then we're going to Mr. Schwartz
4 and then to Mr. Sheehan.

5 MR. STEINBERG: Hello, everyone. I'm
6 Michael Steinberg. I'm from Niantic. My family, thus
7 far, goes back five generations in Niantic. My
8 Scottish great-grandparents came over and my great-
9 grandfather worked at Millstone. He was a quarryman
10 and a carpenter. His name was George Kurt and his
11 wife was Agnes Naduffy Kurt and they are both buried
12 in the Niantic cemetery. Their headstones consist of
13 the pink granite that's known as Niantic granite
14 around here.

15 I'm here tonight to unconditionally oppose
16 the relicensing of the Millstone Nuclear Power
17 Station. In fact, I don't think it should be
18 operating because in order to operate, these plants
19 have to release radiation into our environment pretty
20 much constantly. For instance, here's Exhibit A.
21 This is a document, "Millstone Power Station" -
22 Dominion took the Nuclear out of its name - "2001
23 Radioactive Effluent Release Report." You can't see
24 it from where you are, but I have extra copies I'm
25 going to pass out. It shows all the different ways
26 the radioactivity released into the air and into our
27 waters makes its way through the environment, into our

1 food supply, into our bodies and the bodies of other
2 living things. Before I go further, I'm going to make
3 some of these copies available. This is Dominion's
4 document filed with the Nuclear Regulatory Commission.
5 The microphone doesn't follow.

6 Besides being a local resident, I'm a
7 writer specializing in investigative journalism and in
8 1998, I put out a book called Millstone & Me; Sex,
9 Lies and Radiation in Southeastern Connecticut. I was
10 motivated to do that after my sister contracted
11 thyroid cancer. My uncle who lived across the street
12 from Millstone died of brain cancer. Subsequently,
13 his wife, my aunt, also died of the same kind of brain
14 cancer.

15 Unfortunately, there's all too many
16 stories, but those stories, I would argue, are backed
17 up by a preponderance of evidence indicating that the
18 radioactive releases from Millstone have caused all
19 too many of these diseases and all too many of those
20 kinds of deaths. I would also mention our friend, Joe
21 Besade, who died last August of very virulent and
22 quick acting kind of cancer. He was one of the
23 Millstone whistleblowers.

24 But this isn't just my opinion. I'm going
25 to present some documents that I want to have entered
26 into the record here. Exhibit A is a report entitled
27 "Elevated Childhood Cancer Incidents Proximate to U.S.

1 Nuclear Power Plants." It's authored by Joseph
2 Mangano and Janet Sherman of the Radiation and Public
3 Health Project in New York City. It appeared in the
4 Archives of Environmental Health in February of 2003.

5 I'll read the abstract brief as follows:

6 "Numerous reports document elevated cancer rates among
7 children living near nuclear facilities in various
8 nations. Little researching has examined U.S. rates
9 near the nations 103 operating reactors. This study
10 determined that cancer instance for children under 10
11 years of age who live within 30 miles of each of 14
12 nuclear plants in the Eastern United States exceeds
13 the national average. The excess 12.4 percent risk
14 suggests that one in nine cancers among children who
15 reside near nuclear reactors is linked to radioactive
16 emissions. Instance is particularly elevated for
17 leukemia. Childhood cancer mortality exceeds the
18 national average in seven of the 14 study areas." Of
19 those 14 nuclear plants in the Eastern United States,
20 one of those was Millstone.

21 Exhibit B is an excerpt from this
22 document, "Cancer Incidence in Connecticut Counties
23 1995 by 1999." This is a publication of the
24 Connecticut Tumor Registry. The Connecticut Tumor
25 Registry is the oldest tumor registry in the United
26 States that's been collecting this information since
27 1935. And keep in mind that our communities have

1 suffered nearly 35 years of nuclear contamination from
2 Millstone since Unit 1 started up in 1970.

3 Looking at the -- And also Millstone's
4 radioactive releases are among the highest, if not the
5 highest, of U.S. nuclear power plants. Particularly
6 in the 1970's, the mid '70s, Unit 1 was operating with
7 damaged fuel rods which exacerbated that problem. So
8 we have a cumulative dose to our communities of nearly
9 35 years now.

10 Looking at the records in more recent
11 years since restart, I've seen that these releases are
12 still continuing. Fortunately, they're not as
13 excessive as they were back in the '70s, but they are
14 still continuing. If you look at the record, the
15 documents closely, you see that for what are called
16 the liquid releases into Long Island Sound and Niantic
17 Bay, each year there are hundreds of what are called
18 batch releases.

19 There are more releases. If you look at
20 the documents closely, you see that there are
21 identified in Unit 2 and Unit 3 continuous release
22 points. If you look at the total amount of
23 radioactivity that's documented, most of it comes from
24 this continuous release points. So our communities
25 are pretty much on daily basis being subjected to
26 these releases.

27 Going back to the Connecticut Tumor

1 Registry Report '95 to '99, it reports the incidence
2 of cancers. That is how many people get cancer as
3 differentiated from the mortality, those who contract
4 it who die because fortunately, not everyone who gets
5 it dies. It reports the incidence rate per 100,000
6 population adjusted for age.

7 For those of you from Montgomery County,
8 Maryland, we have eight counties in Connecticut, New
9 London County being the one we're in now. So for
10 those years in New London County, it's broken down by
11 gender also. For females, New London County was
12 number one among the eight states. Males, we're
13 number two, just barely a little bit lower than
14 Tolland County. There's an early report, 1995 to
15 1998, in which New London County was number one for
16 both male and female.

17 It's also broken down into specific kinds
18 of cancers and those are further divided by gender of
19 the cancers that are common to both cancers. So New
20 London County for the years we're talking about was
21 number one for the following cancers: esophagus for
22 males, colon and rectum for females, colon for
23 females, rectum for females, liver for males, breasts
24 for females, cervix for females, uterus for females,
25 other female genital, females of course, bladder,
26 males, bladder, females, multi-myeloma for females in
27 a tie with Fairfield County.

1 I could read you the number twos, the
2 number threes and the number fours, but for the sake
3 of time, I'll skip those. Suffice it to say, that the
4 total kind of cancers in which New London County was
5 counted as a separate county because for some of
6 these, it was lumped in with other counties, was a
7 total of 39. Okay. New London County had 12 No. 1s,
8 six No. 2s, five No. 3s and seven No. 4s for a total
9 of 30 out of 39. Not a very good record.

10 Document No. 3 is called "The Radiation
11 Exposure Compensation Act." In 1990, Congress passed
12 this act saying that people that were downwind of
13 atmospheric nuclear tests in the '50s and '60s in
14 parts of Utah and Nevada and Arizona and also people
15 who worked in uranium mines should be compensated for
16 the damages that they suffered because of those tests
17 that were done in name of national security.

18 It names specific diseases for the
19 downwinders. Those were specified diseases. They're
20 called lymphocytic leukemia, multiple myeloma,
21 lymphomas other than Hodgkin's Disease and primary
22 cancer of the thyroid, breast, esophagus, stomach,
23 pharynx, small intestine, pancreas, bile ducts, gall
24 bladder or liver except cirrhosis or hepatitis B.

25 The reason why I'm bringing this up is
26 because if you look at the breakdown of the specific
27 kinds of cancers in New London County, '95 to '98,

1 pretty much all of those that were named in this 1990
2 Act of Congress show upon this list. They are caused
3 by ionizing radiation, the kind of radiation that's
4 released from Millstone every day and has been for
5 almost 35 years now.

6 The final document I'm going to bring up
7 is a summary of a document by Joseph Mangano, who is
8 one of the authors of the first document I've talked
9 about. This was from 1998 and the title of it is
10 "2,500 Excess Cancer Cases in New London County Since
11 1970: Radioactive Emissions from Millstone May Be The
12 Cause." "About 2500 excess cancers have occurred in
13 New London County since the first Millstone Nuclear
14 Power reactor in Waterford opened in 1970. About 800
15 of these cases resulted in death, using official
16 figures published by the National Cancer Institute
17 and the Connecticut Tumor Registry."

18 Basically, what Mangano, who is an
19 epidemiologist, did was look at the cancer rate in New
20 London County for a certain period of years before
21 Millstone started up and then looked at it in the
22 later years, in the '80s, and he saw that if the rate
23 had remained the same as it had been before 1970, it
24 would have gone up something like this. But instead,
25 it was going up something like this. So between the
26 two lines, there was a gap and that gap is what caused
27 the excess cancer cases.

1 "In the '50s and '60s," I'm quoting from
2 the document now, "New London County cancer incidence
3 rate was eight percent below the state average, rising
4 to two percent below from '71 to '84 and 2.5 percent
5 above in '89 to '91." So that goes from eight percent
6 below the state average to 2.5 percent above. "In
7 Millstone's first 14 years, the county cancer
8 mortality rate was 11 percent above the nation
9 compared to five percent above in the '50s and '60s
10 according the National Cancer Institute. An
11 approximate total 800 additional cancer deaths
12 occurred in the county since Millstone opened."

13 Then Mangano also looks at specific kinds
14 of cancers. For children, leukemia in Millstone's
15 first 14 years, leukemia cases for New London County
16 for children under 10 was 55 percent higher than the
17 state and leukemia deaths 45 percent higher. Again,
18 his source is the National Cancer Institute.

19 For thyroid cancer -- And I should mention
20 that in those worst years of 1970s when Millstone was
21 operating with damaged fuel rods, it was releasing
22 dangerous amounts of radioactive iodine into the air
23 and into the water. So the rate of thyroid cancer in
24 New London County has risen twice as fast as the rest
25 of Connecticut after 1970.

26 Before understanding that, thyroid cancer
27 is normally, if there is such a thing as normal any

1 more, a very rare disease and it predominantly strikes
2 females. For Millstone, about three cases per year
3 were diagnosed in the county. By the early 1990, the
4 number jumped to 17. That's according to Connecticut
5 Tumor Registry.

6 FACILITATOR CAMERON: Michael, I'm going
7 to have to ask you wrap up.

8 MR. STEINBERG: I'm almost done.

9 FACILITATOR CAMERON: Okay.

10 MR. STEINBERG: And he also looked at the
11 four towns nearest the reactor, being East Lyme,
12 Groton, Waterford and New London. Females cancers in
13 '89 to '91, cancer cases in these four towns were 15
14 percent higher than the state tumor registry. Female
15 only cancers were especially high in breast cancer, 20
16 percent greater than the state. Cervical cancer, 26
17 percent greater. Ovarian cancer, 35 percent greater
18 and uterine cancer, 29 percent greater.

19 For skin cancer - this is the last thing
20 I'm going to say - malignant myeloma incidence in the
21 four towns in '89 to '90 was 65 percent greater than
22 for the rest of Connecticut. Connecticut Tumor
23 Registry. You might say, "Well we live at the shore.
24 We go to the beach all the time. So that's why." But
25 Mangano took the trouble to look at the rest of the
26 Connecticut coastal towns and found that, yes, their
27 rate was higher than the state also, but it was only

1 seven percent higher compared to ours which was 65
2 percent higher. Thank you.

3 FACILITATOR CAMERON: Thank you very much,
4 Michael. And are you going to be able to let us have
5 some of those statistics?

6 MR. STEINBERG: Yeah, I have a copies of
7 all of this for you.

8 FACILITATOR CAMERON: Okay. Don't worry
9 about that. All right. Why don't you give them to
10 Rich? You can do it now or later, but we're going to
11 go on to Mr. Schwartz.

12 MR. SCHWARTZ: I have three very brief
13 points. I'll just preface it by saying that I have no
14 opinion pro or con on the safety of nuclear power. As
15 I sat here tonight, the first point, it occurred to me
16 that there's a big gap, Millstone 1. I have no idea.
17 I'm sure many people do have an idea here why
18 Millstone 1 is no longer operating, but I think that
19 should be addressed in the EIS.

20 No. 2, Dry Casks. I find surprising that
21 the NRC people here. I would hope somebody down there
22 has figured it out. It would seem to me that it's
23 something that could be done in a matter of days, not
24 weeks, if the bureaucracy wanted to get going to
25 figure out whether dry casks are safer than the water
26 pools.

27 It's not secret that the spent-fuel pools

1 are the weak link in the safety of the plants from a
2 terrorist attack standpoint. It would seem to me a
3 no-brainer that dry casks harden, dry cask bunkers are
4 safer and that it could quickly be determined and that
5 everybody whether you're pro or anti-nuclear, whether
6 you're industry or regulatory, we could all agree that
7 this is the cardinal safety issue that needs to be
8 addressed and could be addressed in a matter of
9 months, I would think. By dispersing the threat and
10 by hardening it, that takes away 99 percent of my
11 concerns about the threat from terrorist attack.

12 The final point which Mr. Berger addressed
13 is one of evacuation. My sense is from observing how,
14 I believe, approximately 100,000 people come to line
15 the Groton waterfront every year for fireworks. If
16 I'm correct, I think that's about half the population
17 of the county and in about two or three hours, it's
18 successfully evacuates from the localized area. They
19 are all concentrated right around the waterfront.

20 I don't think evacuation is a major
21 problem. My problem, and I talked to Rich after the
22 meeting last time, is with the notion of evacuation,
23 the idea of taking everybody in the area and putting
24 them in an unsealed vehicle right at the point, right
25 at the time of maximum concentration of airborne
26 nuclides is ridiculous.

27 I think it's one of education which will

1 help prevent panic. I know personally. You're not
2 going to put me in an unsealed vehicle. I'm going to
3 go home in sealed room with either wet towels over my
4 mouth and nose or a respirator. I'm going to prevent
5 the inhalation which is the big problem. I think the
6 NRC -- I know this is not going to be -- This is
7 getting a feel from the EIS, but I think the NRC needs
8 to rethink its whole evacuation scheme. I think it's
9 nuts.

10 The only time to evacuate is probably days
11 afterwards after teams have come in and found out
12 which areas have the highest untenable levels of
13 radiation and after it's all settled out. But until
14 then, after it's settled out of the atmosphere, I
15 think it's nuts to put everybody on the highway in an
16 unsealed vehicle. It will just ensure that a high
17 proportion of those people are going to go through the
18 cloud and inhale the stuff and that's when they are
19 going to get into long term problems. That's it.

20 FACILITATOR CAMERON: Thank you, Mr.
21 Schwartz. We're going to go to Mr. Sheehan and then
22 to Mr. Tony Sheridan and then to Mr. George Key.

23 MR. SHEEHAN: John W. "Bill" Sheehan. I'm
24 a member of NEAC. We just had some recent discussion
25 on cancer risk studies. I'm going to read you some
26 excerpts from the Nuclear Energy Advisory Council's
27 Report to the Governor and the State Legislature of

1 2001, "Cancer Risk Study."

2 "In July of 1997, the NEAC asked the
3 Connecticut Academy of Science and Engineering (CASE)
4 to conduct a study on cancer incidence in regions with
5 relatively high exposures in this case from the
6 Connecticut Yankee Nuclear Power Plant. The formal
7 report was completed by the Academy on December 6,
8 2000 and presented to NEAC at a public meeting held in
9 Hadaman January 25, 2001."

10 "As a result of its findings, the CASE
11 committee concluded that atmospheric emissions from
12 Connecticut Yankee have not had a detectable influence
13 on cancer incident. The committee also concluded that
14 an additional study of this topic is unlikely to
15 produce any positive correlation."

16 The executive summary of the report, which
17 I will read now said, "Statement of Inquiry, the
18 citizens living in the vicinity of Connecticut Yankee
19 Nuclear Energy Plant have increasing expressed
20 concerns related to the reported and possible other
21 emissions of radiogenic elements into the atmosphere,
22 the Connecticut River and Long Island Sound. Much of
23 the information on which these concerns were/are
24 based, however, contains no scientific data and has
25 little or no statistical significance.

26 To assist the Nuclear Energy Advisory
27 Council with its analysis of public safety and

1 proximity to nuclear energy plants, the Academy was
2 asked to study and make an initial report on cancer
3 incidences in regions with relatively high exposure to
4 the Connecticut Yankee plant in Haddam using data from
5 the Connecticut Tumor Registry.

6 Connecticut Yankee was selected for this
7 study because of the fact that it has been
8 intermittently active for several decades and was
9 finally closed in the fall of 1996. The relatively
10 long and specific interval during which radiogenic
11 emissions could have occurred may provide a reliable
12 database of tumor incidents despite the fact that the
13 radiation half life of many of the elements probably
14 released extends well beyond the closing date.

15 Summary of the findings. A review of
16 scientific literature revealed no definitive studies
17 showing increased neighborhood cancer rates associated
18 with normally operating nuclear power plants. An
19 estimate in 1981 undated in 1987 by Northeast
20 Utilities indicated very low rates of emission and
21 resulting exposure doses well below health standards.
22 Examination of the actual emission data which the
23 committee received from Northeast Utilities indicated
24 that reanalysis of the available data was not likely
25 to result in different conclusions. Therefore the
26 committee agreed that a modeling analysis would be
27 more useful in determining if more intensive

1 measurement studies were necessary.

2 An atmospheric transport model was
3 utilized to estimate the exposure doses called the
4 committed dose equivalent (CDE) of selected
5 radionuclides in each town in Connecticut. In no town
6 was the expected total CDE in excess of one mrem for
7 the 28 year period. The maximum expected fatal
8 cancers for the entire state of Connecticut was
9 estimated to be at 0.11 death.

10 In addition, the committee agreed to use
11 the Connecticut Tumor Registry to look for any
12 associations between tumors relatable to radionuclides
13 from Connecticut Yankee and the location of towns to
14 the plant. Incidence of leukemia (ICD-9-CM 204-208.9)
15 and thyroid cancer (ICD-9-CM 193) as recorded by the
16 Connecticut Tumor Registry from 1976 to 1995 were
17 examined. Geographic information systems technology
18 was used from a spatially referenced database of
19 information for the tumor registry. U.S. census
20 information from 1980 to 1990 for Connecticut's 169
21 towns was used to normalize the cancer incident data.
22 No association between cancer incidence and the
23 proximity to Connecticut Yankee was found through this
24 clustered analysis.

25 The committee then performed an analysis
26 to compare the calculated doses with the Connecticut
27 Tumor Registry data. Results of logistic regression

1 analysis comparing these incidents, population counts
2 and estimated exposure levels did not identify
3 meaningful associations among the cancers and the
4 radiation exposures in the towns. In comparison for
5 some tumors, a negative correlation was found.

6 Conclusions. The committee found that
7 exposure to radionuclides emitted from Connecticut
8 Yankee are so low as to be negligible. The committee
9 also found no meaningful associations among the
10 cancers studied, pediatric leukemia, adult chronic
11 leukemia, multiple myeloma and thyroid cancer and the
12 proximity of the Connecticut Yankee. Both methods
13 thus yield the same results.

14 Then a regression analysis of calculated
15 doses to the tumor incident was concluded and no
16 correlation was found. Based on these findings, the
17 committee concludes that atmospheric emission from
18 Connecticut Yankee have not had a detectable influence
19 on cancer incidences. The committee has also
20 concluded that an additional study of this topic is
21 unlikely to produce any positive correlation."

22 I go back to the NEAC report now. "NEAC
23 initiated this study in request and in response to
24 public concern raised at this meeting. NEAC expressed
25 its sincere appreciation to CASE and its leadership
26 for this important study which clearly demonstrated
27 that nuclear plant emissions had not had a detectable

1 influence on cancer incidence in the State of
2 Connecticut. As the CASE report used data from the
3 Connecticut Tumor Registry, a like study of Millstone
4 emissions would provide a similar result." Thank you.

5 FACILITATOR CAMERON: Thank you, Mr.
6 Sheehan. We're going to go to Mr. Tony Sheridan right
7 now. Tony.

8 MR. SHERIDAN: Good evening, everyone.
9 Tony Sheridan. I'm President of the Chamber of
10 Commerce of Eastern Connecticut. We represent 1167
11 businesses in Southeaster Connecticut and Eastern
12 Connecticut. I also have a history with nuclear power
13 that provides me some support in making a few comments
14 here. I served as first electman of the town for
15 eight years during a difficult period when the former
16 owner owned the plant. I learned a lot more about
17 nuclear power than I thought I ever would, but it
18 became necessary.

19 Subsequently, the company brought in a
20 team of people who finally were able to get their act
21 together and Northeast Utilities slowly regained the
22 confidence of the community and got the plant back on
23 line. During that period, we were quite concerned in
24 Waterford, actually in all of Southeastern
25 Connecticut.

26 I remember visits our State Senator
27 Melodie Peters, Andrea Stillman, myself and the other

1 electman made to NRC in Washington, to our State
2 Capital and to our Congressmen and Senators expressing
3 concern about the concerns that the community had
4 about the ways the plants were operated. A lot has
5 been learned since then. As I mentioned, Northeast
6 Utility brought in a new team of people. They slowly
7 regained the confidence of the community and now we
8 have a Dominion Nuclear Connecticut operating the
9 plant.

10 I was part of the transition as an
11 employee of Northeast Utilities in the sale of the
12 plant. Subsequently, I continued my employment with
13 Dominion Nuclear for three years and I'm here to
14 support the relicensing of the plants, not only
15 because of the economic impact they have on our
16 community and indeed on the state and on New England,
17 but because they're safe. They're reliable.

18 We all have a standard of living we've
19 grown accomplished to. A huge part of that, as you
20 well know, is the availability of clean, reliable
21 energy. Until we come up with a better source, this
22 is what we have. It's safe. The people at Millstone
23 are responsible people and they are very dedicated to
24 doing what's right first, not what's economically
25 feasible.

26 Someone mentioned earlier. There was a
27 question about the economic impact the plants have on

1 the community. I was part of the process of
2 developing that study. Early today, Don Klepper-
3 Smith, the economist, a very noted economist in the
4 State of Connecticut, was the principal conducting
5 that study and the figure that the overall impact that
6 Millstone has on the economy of the region is \$500
7 million. That's a major, major impact. That's
8 includes goods and services purchased as well as
9 personnel.

10 Someone else mentioned a concern about
11 radiation exposure. I stand corrected, but I believe
12 there's an on-going monitoring system, the results of
13 which are placed either in the library at Three Rivers
14 College or perhaps here in the town hall. I'm not
15 quite sure where the depository of those results are.
16 But there is an on-going monitoring system and that
17 information is public and available to the public.

18 Finally, I just want to repeat that there
19 is an enormous economic impact here. As many of you
20 know, Millstone produces the equivalent of 48 percent
21 of the electricity that's needed in Connecticut on a
22 daily basis. Think about that and that give you a
23 sense of how important these plants are to the
24 community, how important they are to the economy of
25 our local community.

26 When restructuring occurred, our state
27 legislature through the help of Melodie Peters and

1 Andrea Stillman were very, very generous to the town
2 of Waterford. In fact, they provided a ten year soft
3 landing to the town. I stand corrected, but my
4 memory, I believe, if it serves me correct, the ten
5 years started with the sale of the plant. We got the
6 equivalent the first year of the old assessment, the
7 difference between the old assessment and the new
8 assessment on the tenth year. The ninth year, it went
9 down to 90 percent of that amount. Eighty percent.
10 Seventy percent and it goes out for ten years.

11 I was highly criticized along with our
12 state senator and state representative for fighting
13 for that provision at the time. It was important
14 because the impact of going from a regulated utility
15 to a deregulated system would have had an enormous
16 impact on the town. We're very, very fortunate as a
17 community in Waterford that we've had this legislation
18 structured in this manner. It provided us, as I said,
19 with a ten year soft landing and I'm sure every
20 resident in the town of Waterford appreciates that.

21 Finally, I would again like to reiterate.
22 I am very supportive of license renewal, not only
23 because of the economic impact, but they are well
24 managed. They're safe. In the volume of electricity
25 that we need on a daily basis, until something better
26 comes along, this is what we have, folks. I would
27 encourage and support NRC's decision to grant the

1 license renewal. Thank you.

2 FACILITATOR CAMERON: Thank you very much,
3 Tony. Mr. Key.

4 MR. KEY: My name is George Key. I live
5 in Waterford for close to 50 years. Before the
6 nuclear power plant was built, Watertown was built and
7 all the operations, I'm very happy with. Now I'm
8 quite an old person, 86 years old now. I've seen and
9 experienced much in my life, both the good and the
10 bad. I've lived through the Great Depression, fought
11 for four years in World War II for this country in the
12 infantry company commander. My background is
13 engineering, mechanical, nuclear, financial and
14 management. I've seen a heck of a lot. I've seen a
15 lot of bull shit. I've seen a lot of facts.

16 Now the nuclear power is going to be darn
17 important for this country. It's very important
18 because we do not have enough energy to survive. If
19 we depend on the foreign oil supplied by countries
20 that are not friendly with the United States, you
21 people will suffer.

22 However, what the NRC has to do is make an
23 in-depth evaluation of license renewal equal to the
24 efforts spent on the original FSAR, Final Safety
25 Analysis Report. That was 23 volumes. That was the
26 final. I want you, the NRC, to pay as much attention
27 to the analysis and evaluation as much as in-depth as

1 of the Final Safety Analysis Report.

2 It is important that Millstone Point
3 continues to provide the power safely to this country
4 for many years to come as it has in the past. Without
5 sufficient energy, this country will surely suffer.
6 Depending on oil provided by countries not friendly to
7 the United States, you cannot survive without nuclear
8 energy. You try it. I can give you an example in
9 World War II, when we didn't have any energy. Some of
10 you may remember or heard about it. Three gallons per
11 week. Now everybody's going around with a hell of a
12 lot more than three gallons per week. Rest assured,
13 this country has to have sufficient power or it will
14 die. And you people will die along with it.

15 Now as far as safety and radiation and all
16 that, I happen to be very familiar because I worked at
17 a nuclear power plants over in EB. And you know most
18 of nuclear power plants are in operation for more than
19 50 years. I don't see many people who are coming out
20 with cancer. As a matter of fact, tonight we have two
21 of them who serve in nuclear Navy for many years, John
22 Markowicz over there.

23 Stand up, John. Bill Sheehan. Stand up,
24 Bill. Did any of you people die from cancer? Not
25 yet. You've been in it for about 40 or 50 years. And
26 you people live day after day next to a reactor plant.
27 So we're going to stop all the bull and I told you

1 people an example that it's safe.

2 And the final statement, please NRC make
3 sure that you evaluate the same way you did when the
4 plant was built, because I read those 23 volumes of
5 FSAR. They used to be in the library. I don't know
6 where it is now. Thank you very much for opportunity
7 to talk to you people.

8 FACILITATOR CAMERON: And thank you, Mr.
9 Key. Our next speaker, and getting close to the last
10 speaker, is JQ. Would you like to address us?

11 JQ: Yes, I would just like to make a few
12 comments. I'm not really as knowledgeable as the
13 majority of you on this. However, my mom did die in
14 1973 of breast cancer, however, I don't think it was
15 related to the power plant, probably more on her
16 pending divorce. May she rest in peace.

17 Basically, right now, the environment has
18 been somewhat talked about tonight, but I was hoping
19 that the present environment could be with the algae
20 surrounding the power plant and other things could be
21 studied more thoroughly in the upcoming weeks and
22 months ahead. Right now, I can't go for renewal of
23 the license. Things that have been reported such as
24 missing fuel rods and things that don't seem
25 appropriate.

26 However, if the problems are taken care of
27 first and then go on ahead, that's what I believe

1 needs to be done. Once that's done, my guesstimate
2 may be six, seven years. Maybe a renewal in 2011,
3 2012 or 2013, somewhere. I'm not an expert on this,
4 but have the problems taken care of.

5 Economically, the Millstone seems to be -
6 I was in Virginia for 22 years, but I'm back up here
7 now. Ironically, Dominion did quite a good job on
8 North Anna. The problems they did have were addressed
9 rather immediately over the last couple decades, but
10 economically once Dominion came up here, we have the
11 doubling of taxes and I think that there are benefits.
12 When the Millstone Northeast Utilities were in the
13 area, the taxes were low for a couple decades. So I
14 think that should be rescinded and the taxes should go
15 down and sooner or later and those are my wishes.

16 Overall, I just would want the NRC to
17 please think about the upmost safety of the people in
18 the immediate area and the safety of everybody and
19 please take that into serious consideration as much as
20 possible. Thank you.

21 FACILITATOR CAMERON: Thank you, JQ. Do
22 we have anybody else who wants to talk at this time?
23 Mr. Markowicz.

24 MR. MARKOWICZ: My name is John Markowicz.
25 I'm a resident of Waterford and I'm co-chair of the
26 Nuclear Energy Advisory Council. I offer the
27 following comments to support or to provide

1 information to some of the earlier speakers. The
2 population in the county has increased. It increased
3 by about one percent per year from 1960 to 1990. From
4 1990 to current 2000, the latest census, in that
5 entire ten year period of time, it went up one percent
6 total. In fact, the population has moved out of the
7 New London area and moved west and north.

8 Concerns about transportation, if you have
9 them, you should bring them to Mr. Butler's attention.
10 He's the Executive Director of the Council of
11 Governments which is also the Metropolitan Planning
12 Organization. Last night in public hearing in their
13 offices in Norwich, they briefed the Regional
14 Transportation Plan which contains extensive
15 information regarding traffic congestion, traffic
16 mitigation solutions and options that are being
17 considered.

18 I echo the comments earlier regarding the
19 100,000 people that could get out of New London in the
20 middle of the night when there's a major event.
21 That's not to say that congestion on the highway has
22 decreased. There's a study going on now to look at
23 what to do with Interstate 95. In fact, congestion on
24 Interstate 95 is increasing. However, the Planning
25 Agency is addressing that. Options to widen
26 Interstate 95, to complete Route 11 are being
27 considered.

1 In fact, as a representative of you on the
2 Transportation Strategy Board for the State of
3 Connecticut, I try to convince the Deputy in Homeland
4 Security to take Homeland Security money to complete
5 Route 11 because it would provide a viable evacuation
6 route. So what I'm trying to present is that there
7 are in fact knowledgeable, skillful, dedicated people
8 trying to address some of the issues that were raised
9 earlier.

10 Finally, with respect to the plant, the
11 NRC now has a color code system whereby it evaluates
12 annually and reports to the public, and it did it here
13 earlier, two months earlier, the condition of the
14 plant. It's green. That means good. Until recently,
15 it had two scrams during the last quarter and by the
16 architecture that goes into this, it went white. So
17 there will be a special inspection that will be
18 conducted by the Nuclear Regulatory Commission to
19 evaluate the condition of the plant and the corrective
20 action and root causes and things that went along with
21 that. The confidence of the Nuclear Energy Advisory
22 Council in the Regulator and in the operators of the
23 plant was restored during the restart process.

24 Finally, to the regulators, I think you
25 heard earlier this evening, particularly from Mr.
26 Schwartz, the probable concern in the region regarding
27 the two spent fuel pools in Millstone 2 and 3 that are

1 not under the enclosure. Several years ago, the
2 Nuclear Energy Advisory Council drafted a letter in
3 which they recommended to the Governor a bunch of
4 different actions to be taken in view of what happened
5 at 9/11.

6 One of the reasons for doing that was a
7 concern on my part and also on my other commissions'
8 part, that the catastrophe that happened to those two
9 towers was fueled by jet fuel that burns at a
10 temperature that is higher than the melting point of
11 zirconium which is the cladding of spent fuel and
12 therefore the inconceivable of jet aircraft crashing
13 into a spent fuel pools was in my mind a similar event
14 that happened on 9/11 and therefore the catastrophic
15 release of spent fuel is a concern. I was wrong. The
16 towers came down for different reasons. The fuel did
17 burn off quickly and immediately as it was in raging
18 inferno.

19 But the concern that I had that led us to
20 recommend among other things anti-aircraft defense
21 systems perhaps for the region was ill-founded. It
22 was incorrect. However, when the plant shut down a
23 couple of months ago - I think it was a Friday evening
24 or Saturday morning and the boom echoed through the
25 community - my wife woke me up and she wanted to know
26 that noise was and what happened at Millstone. It was
27 the best I could do to explain to her that it was not

1 an explosion. A plane did not crash into the spent
2 fuel pool. It was steam dumps that were probably
3 relieving because they had just shut down.

4 I tell that story allegorically because if
5 there is analysis information that can be shared with
6 the community to relieve us and our families of the
7 stress associated with the potential for an event at
8 the spent fuel pools, we would really appreciate that
9 information being shared with us. I think the
10 concerns that Mr. Schwartz evoked earlier is a
11 testimony to that and my wife would thank you also.
12 Thank you.

13 FACILITATOR CAMERON: Thank you Mr.
14 Markowicz. In a minute, I want to go to, in lieu of
15 her comments, Nancy Burton has two questions that
16 we're going to try to answer for her. But before we
17 go to Nancy, I just wanted to introduce Mr. Silas
18 Kennedy to everybody. Silas is one of our resident
19 inspectors over at Millstone and attended the meeting
20 to listen to what people had to say today and as I
21 pointed out, NRC Staff and our experts are going to be
22 around after the meeting and I think Silas will be
23 also if anybody wants to talk with him.

24 Nancy, can you ask both of your questions
25 now and then we'll try and get some answers for you?
26 Would you like to come up here to do it? All right.

27 MS. BURTON: Thank you, Chip, again. I

1 was here this afternoon, Nancy Burton, and I appeared
2 and spoke on behalf of the Connecticut Coalition
3 Against Millstone. I don't want to repeat myself,
4 though I would be happy to know that everybody who's
5 here now heard what I said then, but the transcript
6 will be made available.

7 I have two questions. One is could
8 somebody please from the NRC answer what, describe or
9 define, for us what refurbishment means? What it is
10 and if that is or is not an aspect to the present
11 application? My second question is unrelated so if we
12 could do that one first.

13 FACILITATOR CAMERON: Refurbishment? Go
14 ahead, Barry.

15 MR. ZALCMAN: Barry Zalcman of Staff. The
16 kinds of activities that could be contemplated are
17 those that are necessary to allow the facility to
18 operate during the period of extended operation. Now
19 what that means is if during the 40 and 60 year life
20 of the facility in order to operate for that 20 year
21 period, major components would need to be replaced,
22 for example, steam generators. If the steam
23 generators had to be replaced, they could last through
24 the first 40 year period, but were necessary to be
25 changed out from 40 to 60. That major refurbishment
26 activity would be associated with the license renewal
27 action.

1 To my knowledge, for this application,
2 there are no major refurbishment activities other than
3 routine operations that are necessary for the 40 to 60
4 year period. Therefore, refurbishment would not
5 considered as part of this action. Now we have a
6 whole category of issues that were identified within
7 the generic environmental statement that we talked
8 about that were considered candidates. There's an
9 enumeration of those. Perhaps that would serve better
10 examples for what refurbishment may be.

11 MS. BURTON: Does that mean then that th
12 present application does not contemplate power uprates
13 over the present and renewed life of the two nuclear
14 reactors?

15 MR. ZALCMAN: Let me address uprates.
16 This is a slightly different question. Uprates are
17 contemplated for a number of facilities. There are
18 three types of uprates. Some of them are associated
19 with instrumentation. Some associated with stretch
20 power. When we originally license facilities dealing
21 with the uncertainty, it's not uncommon that we would
22 have licensed the facility or evaluated the facility
23 at like 103 to 105 percent of power. That would have
24 been part of the environmental impact statement or
25 final environmental statement as they were called back
26 then.

27 Or today, extended power uprates. That is

1 more common to uprates in excess of seven percent of
2 power. There have been generic studies, principally
3 more recently, associated with boiling water reactors
4 where uprates could be of the range of up to 20
5 percent. So the uprate program is ongoing. It's a
6 different licensing action that basically the Agency,
7 to the knowledge, and perhaps you can correct me,
8 Rich, there's no extended power uprate that has been
9 identified as a candidate for Millstone that has to be
10 considered for a license renewal.

11 If the Agency is aware of extended power
12 uprates in license renewal and we do have another
13 example - for example, Browns Ferry is considering
14 extended power uprates - then the end state which
15 would be an uprated facility represents what we would
16 be looking at for the period of extended operation.
17 At Browns Ferry, right now, they may be licensed to
18 operate at 100 percent or 103 percent, but they are
19 contemplated to go to 120 percent, then the license
20 renewal action would actually look at plants operating
21 at 120 percent of power for the license renewal
22 period.

23 MS. BURTON: Right.

24 MR. ZALCMAN: But for this action, as I
25 understand it, we're not looking at extended power
26 uprate of the facility.

27 MS. BURTON: And is that because the

1 Applicant does not contemplate having power uprates
2 over this present and extended license term?

3 MR. ZALCMAN: I can't answer that for the
4 Licensee. I can only tell you what the Agency is
5 aware of today. We're not looking at extended power
6 uprates for this facility that we're aware of. If it
7 revealed that, in fact, part of the business plan is
8 to look at extended power uprates, then it should be
9 reasonable for the Agency to look at that.

10 MS. BURTON: Wouldn't the Agency require
11 the Licensee to disclose to be forthcoming with that
12 information during this process?

13 MR. ZALCMAN: Not for license renewal.
14 If, in fact, they have identified interest in extended
15 power uprates, they would raise that to the Agency in
16 a separate forum. Those are licensing actions also
17 before the Agency. They, in fact, require separate
18 revenue, including an environmental review. So for
19 something like an extended power uprate, the Agency
20 would look at the environment issues, what would
21 change, what the significance of those impacts would
22 be and produce an environmental review. Sometimes
23 that includes an environmental assessment that is
24 rather extensive. We call them "super environmental
25 assessments" that could run over 30 or so pages that
26 reveal all the issues associated with an uprate.

27 FACILITATOR CAMERON: Okay. Thank you,

1 Barry.

2 MS. BURTON: Thank you.

3 FACILITATOR CAMERON: Second question.

4 MS. BURTON: Yes. The second question has
5 to do with the issue of biological health effects from
6 Millstone's operations in the past and looking into
7 the future. One of the speakers reported a one
8 percent cancer increase between 1960 and 1990. I
9 don't believe that that speaker meant to suggest that
10 applies to the towns of Waterford or East Lyme or
11 certain neighborhoods within those communities. But
12 my question is in order to be most helpful here
13 members of the public who would like to share this
14 information with the NRC during this process, I wonder
15 if it could be explained to us how to do that in a way
16 that would best insure that that information would be
17 put to good use.

18 FACILITATOR CAMERON: Rich, do you get the
19 drift of Nancy's question?

20 MR. EMCH: To be honest, I'm not exactly
21 sure. I think what I heard you ask is if people have
22 information about health issues rates like cancer or
23 whatever that you're wondering how they can get that
24 information to us. Okay. Yes. They can send it to
25 us as comments They can send it through the website
26 that I talked about earlier.

27 Actually, you know, really issues about

1 information about health effects, if it were well-
2 founded, those again would turn into today issues. We
3 wouldn't be worried about them for license renewal.
4 Those would be issues we'd want to examine today. But
5 yeah, they can get them to me and I'll get them to
6 right people.

7 MS. BURTON: Are you suggesting that, if
8 you receive information concerning cancer rates that,
9 in fact, there is a correlation between cancer rates
10 and Millstone and that case can be made credibly to
11 you, you would disregard that information in the
12 license renewal process?

13 MR. EMCH: If that's what you heard,
14 that's not what I meant to say, Nancy. Okay. What I
15 meant to say is we'll look at any new information
16 that's given to us. I have the studies from the
17 gentleman earlier today and we'll examine those and
18 we'll examine them in the realm of whether they
19 provide new and significant information related to
20 their license renewal.

21 What I was trying to say is if there
22 really were well founded issues regarding cancer or
23 health effects from effluents from this plant going on
24 today that, to the NRC, would be a today issue not
25 something we would want to wait years and years to
26 deal with. We'd want to deal with it now.

27 MS. BURTON: Could I just as a follow-up

1 to that?

2 FACILITATOR CAMERON: Do you understand
3 what Rich is saying is that license renewal under
4 those types of situations is not the main point. They
5 NRC is always concerned about safety problems. Then
6 when Rich says "it's a today issue" it's an issue if
7 we hear of a safety concern we're going to evaluate
8 that regardless of whether it's in license renewal or
9 not. But after you do a quick follow-up, Nancy, I
10 think maybe it would be useful for the public along
11 this vein if Rich could just talk a little bit about
12 radiation protection and our role in that and the
13 basis of our regulations and perhaps the role of other
14 agencies in terms of this type of information.

15 MS. BURTON: Well, as a follow up, in
16 terms of your process, the NRC, in reviewing the
17 license renewal application, I'm not sure that I
18 understand to what extent you people will be
19 aggressively searching out information such as the
20 health effects of Millstone operations on the
21 community, I mean, to the extent that you might be in
22 a good position to go to the licensee to request
23 information about their employee records, how they
24 have traced what has happened to their employees,
25 Dominion and Northeast Utilities, over the year in
26 order for you to be in a good position to assess
27 health effects of working at Millstone over this

1 period of time.

2 FACILITATOR CAMERON: Okay, Rich, why
3 don't you --

4 MS. BURTON: I'm sorry. I meant to ask
5 that as a question.

6 FACILITATOR CAMERON: Well, he's going to
7 give us an overview of how the NRC does consider
8 radiation protection and radiation effects. I think
9 that from that presentation there will be a
10 consideration of your particular question.

11 MS. BURTON: Thank you.

12 FACILITATOR CAMERON: Okay.

13 MR. BERGER: Excuse me. I'm wondering, is
14 there a permitted or acknowledged release of leakage
15 of radiation or effluents, as you call it, that is
16 expected as part of the ongoing operation. In other
17 words, nothing is sealed perfectly. Something must be
18 getting out. What's permissible?

19 FACILITATOR CAMERON: I think that fits in
20 with what Rich is going to say. We're going to make
21 this try to cover the basis that Mr. Berger raised and
22 also that Nancy raised. If we need to go into this
23 further with you, anybody after the meeting, we'll be
24 glad to do that. You had one other point.

25 MR. BERGER: What is permissible amount
26 related to the power out for the units, in other
27 words, if they upgrade and double the power output so

1 that it permits double the amounts of radiation?

2 FACILITATOR CAMERON: And Rich, please
3 give us this overview and think carefully about
4 Nancy's question about the NRC and whether it's within
5 our authority to actually do epidemiology studies and
6 whose responsibility that is too, if you get my drift.
7 Go ahead.

8 MR. EMCH: We talked earlier about
9 Category 1 issues, in other words, the ones that were
10 generic. I think we even mentioned that radiation
11 protection was one of those issues. We also mentioned
12 that we do a fair amount of examination or
13 investigation to see if there is new and significant
14 information about those Category 1 issues.

15 So this is probably a pretty good example
16 of that. I want to talk just a little bit about that.
17 As I go through that, I'm going to try to cover some
18 of the other things that you folks have asked about.
19 First off, we have examined effluent and environmental
20 reports from the plant for the last several years. As
21 a matter of fact, on Friday, I was just examining
22 their reports from calendar year 2003.

23 There were no surprises there. The
24 effluents are well within the NRC's limitations. The
25 doses that would be estimated from those effluents are
26 very small, well within our limits, and probably,
27 let's see, if we're talking doses that are less than

1 one millirem per year as opposed to 200 to 300
2 millirem per year from what we refer to as all the
3 other sources such as natural background, medical X-
4 rays, things like that that we all receive each year.

5 So they are well within the regulations.
6 No, sir, the limits are not adjusted for power output.
7 The limits are for each individual unit. In fact,
8 there is a regulation by EPA called 40 CFR 190 that
9 says basically that no one in the United States can
10 receive more than 25 rem per year from the entire fuel
11 cycle which includes power reactors, enrichment
12 plants, everything. So no, they don't get to release
13 more because they have a higher power level.

14 Also, part of the information that we
15 looked at, we had discussions with the Department of
16 Environmental Protection, the Division of Radiation
17 here in the State of Connecticut. They specifically
18 discussed with us the studies that Mr. Sheehan was
19 talking about earlier. Their studies, their
20 evaluation of the studies indicate to them that there
21 is no evidence of excess cancers around the power
22 plants in Connecticut from effluence from those
23 plants.

24 This is not a surprise to us. This is
25 right in line with what we have heard from a number of
26 different sources. In 1990, at the request of
27 Congress, the National Cancer Institute did a study of

1 cancer incidents around nuclear facilities and
2 concluded that there was no evidence of higher cancers
3 around nuclear facilities including nuclear power
4 plants that had been operating at the time. Millstone
5 was in that study.

6 MR. STEINBERG: (Inaudible)

7 FACILITATOR CAMERON: We need to get this
8 on the record. Just let Rich continue. If you have
9 a point, Mr. Steinberg, you can bring it up with us
10 later on. Okay?

11 MR. STEINBERG: I'd like to do it while
12 everybody else is here.

13 FACILITATOR CAMERON: Go ahead.

14 MR. EMCH: My reading of the 1990 study
15 about cancer incidents around nuclear facilities - I
16 was just looking at it again the other day - they said
17 that there are ups and there are downs, but across the
18 board, there is no evidence of higher cancer incidents
19 from living near nuclear power plants. That's what I
20 saw in the study.

21 Now, you gave me the study that you are
22 looking at. I will look at that. As a matter of
23 fact, in a moment I am going to get to those other
24 studies. Similar studies similar to the Connecticut
25 study have been done at a number of other states, ones
26 where we have done license renewal. We have heard
27 what their Departments of Environmental Protection or

1 Health Protection or whatever said.

2 Florida, Illinois, Pennsylvania have all
3 examined statistics including Mangano's statistics.
4 They all came to essentially the same conclusion; no
5 excess cancer, no higher cancer incidents from nuclear
6 power plants. So all this is to say, this is the
7 thing that we did when I'm talking about looking for
8 new and significant information.

9 Now, along those same lines, part of the
10 reason for being here tonight is to get, to take in,
11 to listen, to hear what new information you folks
12 think we should be looking at. So the information you
13 gave us, we will take it back. We'll examine it along
14 with everything else. We'll look to see if there's
15 anything there that we think is significant. So I
16 appreciate you bringing that stuff to us. We'll look
17 at it.

18 Just another point that I wanted to make.
19 Most of you are probably familiar that the incident of
20 cancer in the United States is about one in four.
21 About one in four people at some point during their
22 life will contract cancer of some kind. I only
23 mention this to say it's a tragedy for each and every
24 person, but the fact of the matter is, cancer is not
25 an unusual disease.

26 The statistics say, if a man lives long
27 enough, he will get prostrate. It's not a question of

1 if. It's a question of when that a man will get
2 prostrate cancer if he lives long enough. I only
3 mention this to say, cancer is not an unusual thing.
4 One in four people in the United States contract
5 cancer of some kind during their lifetime. That's the
6 stuff that you hear on every news channel or whatever.
7 I'm trying to remember, occupational exposure, was
8 that the issue that --

9 FACILITATOR CAMERON: I think that Nancy
10 used occupational exposure as an example of how
11 aggressively the NRC would go after the information.
12 You might want to talk about the Agency for Toxic
13 Substances and Disease Registry in terms of who does
14 have the authority to do epidemiology studies.

15 MR. EMCH: All right. By the way, when we
16 were recently discussing license renewal in the State
17 of Illinois, one of the things that we looked at was,
18 we did get in touch with the Agency for Toxic
19 Substances and Disease Registration.

20 FACILITATOR CAMERON: It's part of --

21 MR. EMCH: HHS.

22 FACILITATOR CAMERON: CDC.

23 MR. EMCH: Yes, and they examined the data
24 in the State of Illinois along with the Illinois State
25 Department of Public Health and came to the same
26 conclusion, that the data showed no excess cancers, no
27 increased cancers, no significance of increased

1 cancers. So based on those kinds of studies and the
2 examinations that we have done, our conclusion is that
3 there is no need. We don't see a need for it.

4 First off, it's not within our charter to
5 go out and do health studies of the kind that you are
6 talking about. But the agencies that can do that,
7 such as this Toxic Substances Agency or whatever,
8 their conclusion was that no such studies were
9 necessary, that really everything that we have heard
10 falls right in line with the conclusions that we have
11 already drawn, and that such health studies are not
12 necessary either for members of the public or for
13 occupational workers. Chip, did I miss anything that
14 you were hoping I would talk about?

15 FACILITATOR CAMERON: No, I don't think
16 you did. But I think you mentioned that the dose from
17 all sources could be 25 rem. I think you meant 25
18 millirem.

19 MR. EMCH: I didn't say rem, did I? Okay,
20 I'm sorry. If I did, it's 25 millirems of the whole
21 body, 40 CFR 90. What?

22 FACILITATOR CAMERON: JQ, we need to get
23 you on the transcript. We always want to make sure we
24 have JQ on the transcript.

25 JQ: Well, my ignorant question is rem is
26 1,000 times more than a millirem, correct?

27 MR. EMCH: Absolutely correct.

1 JQ: Okay.

2 FACILITATOR CAMERON: Okay, great.

3 MR. EMCH: We might have to hire him as a
4 health physicist.

5 FACILITATOR CAMERON: I would thank Rich
6 for doing an overview for us, a simple one that we
7 hope people can understand. It is a difficult area
8 particularly in trying to understand where the
9 authority between the agencies are to do
10 epidemiological studies. But thank you for doing
11 that.

12 I think we're about finished for tonight.
13 I would ask the NRC staff to talk further. Anybody
14 that raised issues? I think Geraldine had some
15 questions that we promised to talk to her about. We
16 may be able to provide more information to Nancy or
17 anybody else. Thank you all for the comments and the
18 questions. I'm going to ask John Tappert to close it
19 out for us.

20 MR. TAPPERT: I'd just like to thank
21 everyone for coming out again tonight and sharing your
22 views with us. Your comments are important. Our
23 comment period is open until June 4 if you would like
24 to send us some additional comments. The email
25 addresses are on the slides. We will stay after the
26 meeting if you want to discuss any of your other
27 concerns. We'll be back next year. You can let us

1 know how we did in our review. Thank you. Off the
2 record.

3 (Whereupon, the above-entitled matter
4 concluded at 9:56 p.m.)

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