

Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

Title: Oyster Creek Draft EIS Public Meeting
Afternoon Session

Docket Number: 50-219

Location:
Toms River, New Jersey

Date: Wednesday, July 12, 2006

Work Order No.: NRC-1133

Pages 1-105

NEAL R. GROSS AND CO., INC.
Court Reporters and Transcribers
1323 Rhode Island Avenue, N.W.
Washington, D.C. 20005
(202) 234-4433

1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION

3 + + + + +

4 PUBLIC MEETING TO DISCUSS THE DRAFT SUPPLEMENTAL
5 ENVIRONMENTAL IMPACT STATEMENT FOR THE LICENSE
6 RENEWAL OF OYSTER CREEK NUCLEAR GENERATING STATION

7 + + + + +

8 WEDNESDAY,

9 JULY 12, 2006

10 + + + + +

11 The meeting convened at 1:30 p.m. in the
12 Grand Ballroom of the Toms River Quality Inn, 815
13 Route 37, Toms River, New Jersey, CHIP CAMERON,
14 Special Counsel for Public Liaison, Nuclear Regulatory
15 Commission, presiding.

I-N-D-E-X

	<u>AGENDA ITEM</u>	<u>PAGE</u>
1		
2		
3	I. Welcome and Purpose of Meeting	3
4	F. Cameron	
5	II. Overview of License Renewal Process	10
6	M. Masnik	
7	III. Results of the Environmental Review	19
8	K. LaGory	
9	IV. How Comments can be Submitted	38
10	M. Masnik	
11	V. Public Comments	62
12	VI. Closing/Availability of Transcripts, etc.	107
13	F. Cameron	

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

(1:28 p.m.)

I. WELCOME AND PURPOSE OF MEETING

FACILITATOR CAMERON: Good afternoon, everyone. My name is Chip Cameron. I am the Special Counsel for Public Liaison at the Nuclear Regulatory Commission. And I would like to welcome you to the NRC public meeting today. If we could just hold it down over there in the corner, guys? Thank you.

Our subject today is going to be the environmental review that the NRC staff has conducted as part of its evaluation of an application that we received from the AmerGen Company to renew the operating license for the Oyster Creek nuclear power plant. And the NRC staff environmental review is documented in a Draft Environmental Impact Statement statement. And that is going to be the focus of our meeting today.

And it's my pleasure to serve as your facilitator for the meeting. And in that role, I'm going to try to help all of you to have a productive meeting today.

I just want to cover three items of meeting process before we go on to the substance of today's discussions. And I'd like to tell you a

1 little bit about the format for the meeting this
2 afternoon, some really simple ground rules, and to
3 introduce the people who are going to be talking to
4 you today.

5 In terms of the format for the meeting,
6 it's basically a two-part format. We're going to
7 start out by giving you some brief background material
8 on the NRC's license renewal process, what we look at
9 in evaluating whether to decide to grant an
10 application for license renewal. And, specifically,
11 we want to tell you about the findings and conclusions
12 in the Draft Environmental Impact Statement.

13 After we do that, we'll have some time for
14 any questions that you might have about the license
15 renewal process or about what's in the Draft
16 Environmental Impact Statement. And then we're going
17 to move on to the second part of the meeting, which is
18 really the primary part of the meeting. And this is
19 an opportunity for us to listen to you, to any
20 concerns you have, recommendations, comments on the
21 Draft Environmental Impact Statement or on the license
22 renewal process generally.

23 And, as the staff, NRC staff, will tell
24 you, today we're also taking written comments on these
25 issues. But we wanted to be here with you today in

1 person. And anything that you say today is going to
2 carry as much weight as a written comment.

3 In terms of ground rules, when we go out
4 for questions, if you could just introduce yourself to
5 us? I'll bring you this cordless microphone. And
6 give us any affiliation, if that's appropriate, and to
7 ask your question. And we'll try to give you a good,
8 clear answer to that.

9 We don't have a lot of time for questions
10 because we want to move on to the comment period. But
11 if we can't answer your question in-depth, we will
12 answer it offline, so to speak, after the meeting
13 today.

14 I would just ask you to try to be brief in
15 your questions and to confine it to questions. We are
16 going to have a comment period. So a lot of times
17 when we ask questions, they sort of morph over into a
18 comment, and that is natural. But if you could try to
19 keep that down to a minimum and hold your comments
20 until we get to the comment part of the meeting?

21 And I would ask that only one person speak
22 at a time, whoever either has the cordless microphone
23 or when we get to the formal comment part of the
24 meeting, we're going to ask you to come up here to
25 talk to us.

1 An obvious reason for that ground rule is
2 so that we could give our full attention to whomever
3 has the floor at the time. But there is another
4 reason. We are taking a transcript of today's
5 meeting. And that will be a public record that will
6 be available to you. It's our record of the meeting.

7 Toby is our court reporter here. And he's
8 going to be taking a transcript. And if we just have
9 one person speaking at a time, that allows Toby to get
10 what I call a clean transcript. He'll know who's
11 talking at the moment.

12 During the comment part of the meeting, I
13 would like you to keep your comments, if you could, to
14 a five-minute guideline. We don't have a lot of
15 speakers yet. So we may have some leeway there, some
16 flexibility. And I'll just give you a "hi" sign when
17 we're getting near the end of the time so that you can
18 sum up for us.

19 I've found that the five-minute range is
20 enough time to get your major points across. And you
21 can expand on your comments by sending in written
22 comments. But even though it's only five minutes, it
23 does two important things for the NRC. One, it alerts
24 us to what issues or concerns people have right now
25 that we should start working on, that we should start

1 talking to you about.

2 The second thing that your comments will
3 do, it will alert people in the community to what
4 their concerns are so that they can start thinking
5 about that.

6 And, as always with meetings of this type,
7 there are going to be different opinions on what the
8 correct thing to do is. And I would just ask you to
9 all display courtesy to others, who may have different
10 opinions than you have, whatever those opinions are.

11 I am going to introduce our speakers. I
12 just want to thank you all for being here to help the
13 NRC with this important decision that we have in front
14 of us.

15 Our first speaker is going to be Dr.
16 Michael Masnik. Mike is the project manager for the
17 environmental review on the Oyster Creek license
18 application. He coordinates a team of experts, as he
19 will tell you about, that gather data on potential
20 environmental impacts.

21 He's been with the NRC for about 30 years,
22 a long time, in various roles, including being the
23 project manager for the environmental review on other
24 license renewal applications, applications for other
25 nuclear power plants around the country. And he's

1 been very involved in the decommissioning activities
2 on nuclear reactors as well as a lot of other things.

3 He does have a particular tie and fondness
4 to this particular area of New Jersey. His parents
5 owned a summer home here when he was growing up. And
6 I guess that was in Seaside Park. And you spent your
7 summers here, I guess, through college. And in
8 college, Mike actually was a park ranger at the Island
9 Beach State Park before he went to graduate school.

10 His degrees, his academic degrees, he has
11 a Bachelor's from Cornell University. And he has a
12 Master's and Ph.D. from Virginia Polytechnic
13 Institute, which most of us refer to as Virginia Tech.
14 And that degree is in Ichthyology. I finally am able
15 to pronounce that correctly after many times.

16 Mike is going to tell you about the
17 license renewal process and the environmental review
18 process. And then we're going to go to Mr. Kirk
19 LaGory, who is right here. Kirk is going to talk to
20 you about the findings and conclusions in the Draft
21 Environmental Impact Statement.

22 Kirk is the team leader of the team of
23 experts that we have doing the environmental review on
24 this license renewal application. And he is with
25 Argonne National Lab outside of Chicago, Illinois.

1 And there he is the team leader for natural resources
2 analysis from an energy-facility-siting perspective.

3 He's an ecologist by training. And what
4 Kirk spends his time doing is looking at potential
5 energy facilities, natural gas facilities, oil shale,
6 hydroelectric, and looking at what the environmental
7 impacts from those facilities might be. And, of
8 course, on this one, he's looking at environmental
9 impacts from the renewal of the Oyster Creek license.

10 His Bachelor's is from Evergreen State
11 College. He has Master's in Environmental Science
12 and a Ph.D. in Zoology, both from Miami of Ohio
13 University.

14 And, with that, I'm going to turn it over
15 to Mike for the overview. We're then going to go to
16 Kirk. And then Mike will be back with conclusions.

17 I would just ask you, hold your questions
18 if you can. Write them down so that they can get
19 through all of this material. And then we'll go out
20 to you for questions.

21 Thank you.

22 DR. MASNIK: Thank you, Chip.

23 II. OVERVIEW OF LICENSE RENEWAL PROCESS

24 DR. MASNIK: And thank you all for taking
25 the time to come to this meeting. I always look

1 forward to the opportunity to come back to the Jersey
2 Shore.

3 I would like to start off by briefly going
4 over the agenda and the purposes of today's meeting.
5 We'll first briefly explain the NRC's license renewal
6 process for nuclear power plants with an emphasis on
7 the environmental review.

8 Then Kirk LaGory from Argonne National
9 Laboratory will present the preliminary findings of
10 our environmental review, which assesses the impacts
11 associated with extending the operating license of
12 Oyster Creek Nuclear Station for an additional 20
13 years.

14 Then, really, the most important part of
15 today's meeting is for us to receive any comments that
16 you might have on our draft environmental statement.
17 We also will give you some information as to the
18 schedule of the balance of the review and let you know
19 how you can submit comments in the future.

20 At the conclusion of the staff's
21 presentation, we will be happy to answer any
22 questions. However, I must ask you to limit your
23 participation to questions related to the
24 environmental review and hold your comments until the
25 appropriate time during today's meeting.

1 Next slide. Before I get into a
2 discussion of the license renewal process, I would
3 like to take a minute to talk about the NRC in terms
4 of what we do and what our mission is.

5 The Atomic Energy Act is a legislation
6 that authorizes the NRC to issue operating licenses.
7 The Atomic Energy Act provides for a 40-year license
8 term for power reactors. This 40-year term is based
9 primarily on economic considerations and antitrust
10 factors and not on safety limitations of the plant.

11 The Atomic Energy Act also authorizes the
12 NRC to regulate the civilian use of nuclear materials
13 in the United States. And exercising this authority,
14 the NRC mission is threefold: to ensure adequate
15 protection of public health and safety, to promote the
16 common defense and security, and to protect the
17 environment.

18 As I mentioned, the Atomic Energy Act
19 provides for a 40-year license term for power
20 reactors. Our regulations also include provisions for
21 extending the plant operation for up to an additional
22 20 years. For Oyster Creek, the operating license
23 will expire on April 9th, 2009. And Oyster Creek is
24 owned by AmerGen Energy Company, LLC.

25 As part of the NRC's review of that

1 license renewal application, we have performed an
2 environmental review to look at the impacts of an
3 additional 20 years of operation on the environment.

4 We held a meeting here in November 2005 to
5 seek your input regarding the issues we needed to
6 evaluate. We indicated at the earlier scoping meeting
7 that we would return to the Oyster Creek area to
8 present the preliminary results documented in our
9 Draft Environmental Impact Statement. And that's the
10 purpose of today's meeting.

11 The NRC license renewal review is similar
12 to the original licensing process for nuclear power
13 stations in that it involves two parts in an
14 environmental review, along the bottom part of the
15 slide, and a safety review, along the top part. This
16 slide gives the big-picture overview of the license
17 renewal review process, which involves these two
18 parallel paths.

19 I'm going to briefly describe these two
20 review processes, starting with the safety review.
21 Now, what does a safety review consider? For license
22 renewal, the safety review focuses on aging management
23 of systems, structures, and components that are
24 important to safety. The license renewal safety
25 review does not assess current operational issues,

1 such as security, emergency planning, and safety
2 performance. The NRC monitors and provides regulatory
3 oversights of these issues on an ongoing basis under
4 the current operating license. Because the NRC is
5 addressing these current operating issues on a
6 continuing basis, we do not reevaluate them during
7 license renewal.

8 Next slide. As I've mentioned, the
9 license renewal safety review focuses on plant aging
10 and programs that the licensee has already implemented
11 or will implement to manage the effects of aging.

12 I would like to introduce the safety
13 project manager, Donnie Ashley. Donnie, can you stand
14 up? He's in charge of the safety review. The safety
15 review involves the NRC's staff evaluation of
16 technical information that is contained in the license
17 renewal application. This is referred to as a safety
18 evaluation.

19 The NRC staff also conducts audits as part
20 of its safety review. There is a team of about 30 NRC
21 technical reviewers and contractors that are
22 conducting the safety evaluation right now.

23 Safety review also includes plant
24 inspections. And the inspections are conducted by a
25 team of inspectors, both from headquarters and our

1 Region I regional office in King of Prussia,
2 Pennsylvania.

3 The NRC also maintains two resident
4 inspectors at the Oyster Creek nuclear plant. We have
5 Marc Ferdas and Ryan Treadway here today, the two
6 resident inspectors.

7 The results of the license renewal
8 inspections are documented in separate inspection
9 reports. The staff documents the results of its
10 review in a safety evaluation report. And that report
11 is independently reviewed by the Advisory Committee on
12 Reactor Safeguards, or the ACRS.

13 The ACRS is a group of nationally
14 recognized technical experts that serve as a
15 consulting body for the Commission. They review each
16 license renewal application and safety evaluation
17 report, form their own conclusions and recommendations
18 on the requested action, and then report these
19 conclusions and recommendations directly to the
20 Commission.

21 Next slide. The second part of our review
22 process involves the environmental review. This next
23 slide outlines the steps in the environmental review.
24 The environmental review, which is the subject of
25 today's meeting, evaluates the impacts of license

1 renewal on a number of areas, including ecology,
2 hydrology, cultural resources, and socioeconomic
3 issues, among others.

4 The environmental review involves scoping
5 activities and the development of a document called a
6 "Draft Supplement" to the Generic Environmental Impact
7 Statement for License Renewal. The Draft Supplement
8 to this Generic Environmental Impact Statement
9 provides the staff's preliminary assessment of
10 environmental impact during the renewal period.

11 The Draft Environmental Impact Statement
12 for Oyster Creek has been published for comments. And
13 copies, which look like this, are available in the
14 back of the room. And we're here today to discuss the
15 results of our review and to receive your comments on
16 our assessment.

17 In January of next year, we'll be issuing
18 a final version of this environmental impact
19 statement, which will document how the staff
20 addressees the comments that we receive here today at
21 this meeting or in writing.

22 Next slide. Before I go any further, I
23 would like to give you just a little background
24 information on the statute that governs this
25 environmental review. The National Environmental

1 Policy Act of 1969 requires that Federal agencies
2 follow a systematic approach in evaluating potential
3 environmental impacts associated with certain actions.

4 We're required to consider the impacts of
5 the proposed action and any mitigation of those
6 impacts that we consider to be significant.
7 Alternatives to the proposed action include taking no
8 action on the applicant's requests. And these are
9 also considered.

10 The National Environmental Policy Act and
11 our Environmental Impact Statement for License Renewal
12 are disclosure tools. They are specifically
13 structured to involve public participation. And this
14 meeting facilitates the public participation in our
15 environmental review.

16 So we're here today to collect public
17 comments on the Draft Environmental Impact Statement.
18 And these comments will be included in the final
19 environmental impact statement.

20 The NRC staff developed a Generic
21 Environmental Impact Statement that addresses a number
22 of issues that are common to all nuclear plants. The
23 staff is supplementing that Generic Environmental
24 Impact Statement with this site-specific environmental
25 impact statement that addresses issues that are

1 specific to this individual facility.

2 The staff also evaluates the conclusions
3 reached in the Generic Environmental Impact Statement
4 to determine if there is any new and significant
5 information that would change any of these
6 conclusions.

7 Next slide. This slide shows our decision
8 standard for the environmental review. Please just
9 take a minute and go ahead and read this slide.

10 (Pause.)

11 DR. MASNIK: Simply put, is license
12 renewal acceptable from an environmental standpoint?

13 Next slide. This slide shows some
14 important milestone dates for the NRC's environmental
15 review. The highlighted dates indicate opportunities
16 for public involvement in the environmental review.

17 We received AmerGen's application
18 requesting their license renewal for Oyster Creek on
19 July 22nd, 2005. On September 16th, 2005, we issued
20 a Federal Register notice of intent to prepare an
21 environmental impact statement and to conduct scoping.

22 Public meeting was held here in this room
23 on November 1st, 2005 as part of our scoping process.
24 Many of you may have attended that meeting and
25 provided comments to us.

1 Comments that were given at the scoping
2 meeting that are within the scope of our review are
3 contained in Appendix A of the Draft Environmental
4 Impact Statement. Out-of-scope comments were answered
5 in the Scoping Summary Report, copies of which are
6 available in the back of the room.

7 The scoping period ended on November 25th,
8 2005. The Scoping Summary Report was issued on
9 February 21st, 2006. And they addressed all the
10 comments we received from all sources during the
11 scoping process.

12 On June 9th, 2006, the NRC staff issued
13 the Draft Supplement to the Generic Environmental
14 Impact Statement. This document is the subject of
15 today's meeting. We're currently accepting public
16 comments on the draft until September 8th, 2006.

17 Today's meeting is being transcribed. And
18 comments provided here carry the same weight as a
19 written comment submitted to the NRC. Once the
20 comment period closes, we will develop the final
21 impact statement, which we expect to publish in
22 January of next year.

23 This concludes my prepared remarks on the
24 process. Now I'm going to turn it over to Dr. Kirk
25 LaGory, who will explain our findings.

1 III. RESULTS OF THE ENVIRONMENTAL REVIEW

2 DR. LaGORY: Good afternoon. Glad you all
3 could make it here today. My name is Kirk LaGory. I
4 am an ecologist at Argonne National Laboratory. And
5 I was the project team leader for the Oyster Creek
6 EIS.

7 The NRC contracted with Argonne to
8 evaluate the impacts of license renewal at the Oyster
9 Creek Nuclear Generating Station. The EIS team
10 consisted of scientists from Argonne, from Pacific
11 Northwest National Laboratory, as well as NRC staff.

12 We have a couple of team members here
13 today, and I would like to introduce them. They'll be
14 available for questions as they arise. We have Jeff
15 Ward. Jeff is from Pacific Northwest National
16 Laboratory, and he prepared the aquatic resources
17 portion of the document. And then we have Mike
18 Lazzaro, who may have stepped out. He's our air
19 quality expert. He prepared that portion of the
20 document.

21 This slide depicts the various disciplines
22 that the team represented. We had staff members in
23 these various areas: atmospheric science,
24 socioeconomics and environmental justice, archaeology
25 and historic resources, terrestrial ecology, land use,

1 radiation protection, nuclear safety, regulatory
2 compliance, aquatic ecology, and hydrology.

3 Next slide. This slide shows our overall
4 analytical approach that we used in preparing our
5 evaluation. Before I go into this, I would like to
6 give you some background information.

7 In the mid 1990s, the NRC evaluated the
8 impacts of all operating nuclear plants across the
9 country. NRC looked at 92 separate impact areas and
10 found that for plants, for all nuclear plants, the
11 impacts were the same if they had similar features.

12 NRC called these category 1 issues and
13 were able to make the generic conclusion that their
14 impacts would be small. They published those
15 conclusions in the Generic Environmental Impact
16 Statement for License Renewal that was issued in 1996.

17 The NRC was unable to make those sorts of
18 generic determinations for the remainder of the
19 issues. As a consequence, they decided to prepare
20 Supplemental EISes to address those issues. The
21 Oyster Creek Supplemental EIS is the document that
22 we're talking about here today. And that's a
23 supplement to the Generic EIS.

24 Now to go about to discuss our process,
25 again, we looked at category 1 and category 2 issues

1 that were relevant to the Oyster Creek EIS. For
2 category 1 issues, again, the Generic EIS determined
3 that these impacts were the same at all sites and that
4 they would be small.

5 We would look to see if there was new and
6 significant information. If we found new and
7 significant information, then we would perform a
8 site-specific analysis.

9 For Oyster Creek, we did not find any new
10 and significant information. Therefore, we adopted
11 the Generic EIS conclusions. The impact in those
12 categories would all be small.

13 Now let's look at category 2 issues. For
14 all category 2 issues that were relevant to the Oyster
15 Creek EIS, we performed site-specific analysis.
16 That's really the bulk of the EIS. And that's really
17 the bulk of the talk that I will give today, is to
18 discuss what the impacts in those category 2 issues
19 were.

20 There's also a process for identifying any
21 new potential issues that may not have been considered
22 in the Generic EIS. First, potential new issues may
23 be identified in the number of ways they may have been
24 identified during the scoping period. They may have
25 been identified during the EIS analysis.

1 We first look to see if these are truly
2 new issues. If they are, then we would perform a
3 site-specific analysis. If we determine that they are
4 not really new issues, then we go no further.

5 In the case of the Oyster Creek EIS,
6 essential fish habitat is one of those new issues. It
7 was not considered in the Generic EIS. We performed
8 an essential fish habitat assessment specifically for
9 the Oyster Creek site.

10 Next slide. This slide shows how impacts
11 were quantified. In the Generic EIS, NRC defined
12 three impact levels shown here: small, moderate, and
13 large.

14 A small effect is one that is not
15 detectable or is too small to destabilize or
16 noticeably alter any important attribute of the
17 resource. A moderate impact is an effect that is
18 sufficient to alter noticeably but not to destabilize
19 important attributes of the resource. For a large
20 impact, the effect is clearly noticeable and is
21 sufficient to destabilize important attributes of the
22 resource.

23 I use the Oyster Creek cooling system and
24 its effect on aquatic resources to give you an idea of
25 how we use these different impact levels. The

1 operation of the Oyster Creek cooling system has
2 aquatic resource impacts. Impacts occur from
3 entrainment and impingement of organisms into the
4 cooling system and then also through thermal shock.

5 If the loss of aquatic resources is so
6 small that it cannot be detected in relationship to
7 the total population in Barnegat Bay or the impact has
8 not destabilized the aquatic resources, then we would
9 consider those impacts small.

10 If losses cause aquatic resources to
11 decline and that decline is measurable but then
12 stabilize at some lower level, we would call those
13 impacts moderate.

14 If losses at the intake cause aquatic
15 organisms to decline to the point where they cannot be
16 stabilized and they continue to decline, then the
17 impacts would be considered large.

18 Next slide. When the EIS team evaluated
19 the impact from continued operations at Oyster Creek,
20 we considered information from a wide variety of
21 sources. And those are shown in this slide.

22 First we looked at the license renewal
23 application and the information in the environmental
24 report. We conducted a site audit. And we did this
25 for the Oyster Creek plant in October of last year.

1 We toured the plant. We talked to plant personnel
2 during that site audit. And we reviewed documentation
3 of plant operations.

4 We also spoke at that time and throughout
5 the EIS process to various Federal, state, and local
6 agencies, also to permitting authorities and to
7 various social services. And we took comments during
8 the public scoping period in November of last year.
9 All of this information forms the basis for the
10 analysis and preliminary conclusions in the Oyster
11 Creek EIS.

12 The EIS considers the environmental
13 impacts of continued operations of the Oyster Creek
14 Nuclear Generating Station during the 20-year license
15 renewal period; that is, from 2009 to 2029.

16 The impacts of routine or normal
17 operations were considered for the topics that are
18 shown here for the cooling system, for the
19 transmission line associated with the plant, the
20 radiological impacts, socioeconomics, groundwater use
21 and quality, threatened or endangered species, and
22 cumulative impacts. We also looked at postulated
23 accidents and severe accident mitigation alternatives.

24 One of the project features we looked at
25 closely is the cooling system. There are three

1 category 2 issues relevant to the cooling system at
2 Oyster Creek. And these include entrainment,
3 impingement, and heat shock.

4 Entrainment refers to that process where
5 very small aquatic organisms are pulled into the
6 cooling system. A hundred percent of those organisms
7 generally experience mortality. They die as they move
8 through the cooling system.

9 Impingement refers to almost the same
10 process but with larger organisms. They are not drawn
11 into the system. They're stopped at either the trash
12 racks or at the traveling screens that block large
13 material from getting into the cooling system. And
14 those organisms that are impinged on those features
15 generally do not experience 100 percent mortality.

16 The system at Oyster Creek incorporates a
17 Ristroph traveling screen system that moves those
18 organisms off of the intake screen into a flume. And
19 then they're put back into the discharge canal.

20 Now, heat shock, which is the third
21 category 2 issue related to the cooling system, refers
22 to when relatively warm water -- this occurs when
23 relatively warm water is introduced into colder water
24 or relatively colder water.

25 Those organisms that are in that colder

1 water and that are adapted to that temperature, they
2 can lose equilibrium. And they often die as a
3 consequence of that. That process is called heat
4 shock.

5 Our review of these three category 2
6 issues and the impact of the plant cooling system and
7 the studies conducted on those issues suggest that the
8 potential impacts in these areas were small.

9 Radiological impacts were determined in
10 the Generic EIS to be a category 1 issue; that is, the
11 impacts of radiological releases during nuclear plant
12 operations, resulting from nuclear plant operations
13 during the 20-year license renewal period, would be
14 small. However, because these releases are of concern
15 to a lot of people, I will discuss them in a little
16 bit more detail here.

17 All nuclear plants release some
18 radiological effluents to the environment, although it
19 should be noted that since the late 1980s, it is
20 Oyster Creek operating policy to not routinely release
21 liquid radioactive effluents to the environment.

22 During our site visit, we looked at the
23 documentation for effluent releases and the
24 radiological monitoring program as well as the State's
25 independent monitoring program. We looked at how the

1 gaseous and liquid effluents were treated and released
2 as well as how the solid wastes were treated,
3 packaged, and shipped.

4 We looked at how the applicant determines
5 and demonstrates that they are in compliance with the
6 regulations for releases of radiological effluents.
7 We also looked at data from on-site and near-site
8 locations that the applicant monitors for airborne
9 releases and direct radiation and other monitoring
10 stations beyond the site boundary, including locations
11 where water, fish, and food products would be sampled.

12 We found that the average and maximum
13 calculated doses for a member of the public are well
14 within the annual limits that are considered
15 protective of human health. That is about a tenth of
16 a percent of what those standards are, what those
17 levels that are considered protective are.

18 Since releases from the plant are not
19 expected to increase during the 20-year license
20 renewal term, and since we also found new and
21 significant information related to this issue, we
22 adopted the Generic EIS conclusion that the impacts of
23 radiological releases on human health and the
24 environment would be small.

25 There are a number of threatened or

1 endangered species in the vicinity of Oyster Creek.
2 And these fall under the jurisdiction of the Fish and
3 Wildlife Service and the National Marine Fisheries
4 Service.

5 The U.S. Fish and Wildlife Service
6 determined that the bald eagle is the only Federally
7 listed species under their jurisdiction that has the
8 potential to occur in the vicinity of Oyster Creek.
9 They concluded that operations during the license
10 renewal term were unlikely to affect this species.

11 In addition to the bald eagle, there are
12 five species of sea turtles. And these are under the
13 jurisdiction of the National Marine Fisheries Service.
14 The species include the loggerhead, the Kemp's Ridley,
15 the green, leatherback, and hawksbill sea turtles.
16 Three of these species, the loggerhead, Kemp's Ridley,
17 and green sea turtles, are sometimes impinged on the
18 trash racks at the cooling system intake structure.

19 The National Marine Fisheries Service
20 recently issued a Biological Opinion related to the
21 effects of Oyster Creek operations and established
22 incidental take limits for these species.

23 Based on these consultations with the Fish
24 and Wildlife Service and the National Marine Fisheries
25 Service and our review of the data, the staff's

1 preliminary determination is that the impact of
2 operation of Oyster Creek during the license renewal
3 term on threatened or endangered species would be
4 small.

5 We also looked at cumulative impacts of
6 operations. Cumulative impacts are the impacts of the
7 proposed action taken together with other past,
8 present, or reasonably foreseeable future actions,
9 regardless of what agency or person undertakes those
10 other actions.

11 In the EIS, the staff considered
12 cumulative impacts in the following areas: aquatic
13 resources, terrestrial resources, radiological
14 impacts, socioeconomics, and groundwater use and
15 quality.

16 Cumulative impacts were evaluated to the
17 end of the 20-year license renewal term. Our
18 preliminary determination is that any cumulative
19 impacts resulting from the operation of Oyster Creek
20 during the license renewal period would be small.

21 The team also looked at impacts related to
22 the uranium fuel cycle and solid waste management as
23 well as decommissioning of Oyster Creek. In the
24 Generic EIS, NRC considered impact areas associated
25 with these topics as category 1 issues. Our team

1 found no new and significant information and,
2 therefore, adopted that generic conclusion.

3 We evaluated a number of alternatives to
4 license renewal. Specifically we looked at the
5 impacts of replacing Oyster Creek power with power
6 from other sources. Oyster Creek has a power capacity
7 of 640 megawatts.

8 The team looked at a no-action
9 alternative; that is, not renewing the license. We
10 looked at replacing Oyster Creek generation with
11 generation from new power plants, either coal, natural
12 gas, or new nuclear. We looked at the impacts and
13 capabilities of providing that replacement power by
14 purchasing power. We looked at other technologies,
15 such as oil, wood, wind, solar, and hydro power, to
16 replace Oyster Creek's capacity.

17 And then we looked at a combination of
18 alternatives to replace that capacity. And in this
19 case, we looked at a new natural gas plant together
20 with conservation and power purchasing, to make up the
21 full 640 megawatts. For each alternative, we looked
22 at the same types of issues that we did when we looked
23 at Oyster Creek.

24 The team's preliminary conclusion is that
25 the environmental impacts of alternatives would reach

1 moderate or large significance in at least some impact
2 categories.

3 We also looked at the alternative of
4 replacing the existing once-through cooling system at
5 Oyster Creek. We looked at two alternatives here.
6 The first is replacing that system with a closed-cycle
7 cooling-tower based system. And then we also looked
8 at modifying the existing once-through system and in
9 restoring wetlands to offset impacts to aquatic
10 resources.

11 The reason that we looked at these
12 alternatives is because they are identified in the
13 State of New Jersey's draft pollutant discharge
14 elimination system permit for Oyster Creek that they
15 issued in July of 2005.

16 Based on the State's draft permit and our
17 discussions with the State, it seems that there is a
18 reasonable possibility that Oyster Creek will be
19 required to implement one of these alternatives.
20 Alternatives are intended to reduce the impact of the
21 cooling system on aquatic resources.

22 The closed cycle system considered in our
23 analysis is a linear hybrid mechanical-draft system.
24 That system is not as tall as the natural draft towers
25 often associated with nuclear plants. The system that

1 we're talking about is about 80 feet tall.

2 Here we have an aerial view of just a
3 portion of the site. These towers, at least
4 conceptually, would be built within the existing site
5 boundaries. This is the intake canal in this area.
6 And the 2 towers consist of linear banks of cells, 18
7 cells each.

8 The hybrid system reduces the visible
9 plume by heating the exhaust air when fog would be
10 most likely. And that would be in the winter and
11 certain times in the spring and in the fall. So you
12 wouldn't get the very visible plume that you often see
13 at power plants with this kind of system.

14 Since the cooling system uses salt water,
15 exhaust would contain relatively high amounts of
16 particulates, especially salt. It's estimated that
17 about 60 pounds per hour, or about 261 tons per year,
18 would be released from these cooling towers. The
19 amount of release would exceed state standards. And,
20 as a result, we considered these impacts moderate.

21 The second alternative that we looked at
22 is the modification of the existing once-through
23 system. We looked at some newer screening
24 technologies, acoustic fish deterrent system, as well
25 as operational changes. And then we looked at the

1 impacts of the accompanying wetland restoration
2 program that the State has indicated is of interest.

3 The Department of Environmental Protection
4 considers wetland restoration in Barnegat Bay as a
5 viable approach to offset impacts to aquatic
6 resources. A substantial amount of restoration would
7 be required to offset the impacts of the cooling
8 system at Oyster Creek.

9 For most impact areas, we considered the
10 impacts of this modification with restoration
11 alternative to be small. In two areas, the impacts
12 could reach moderate levels. And these two areas are
13 land use and an archaeological or cultural resources.
14 And this level of impact would all depend on where the
15 restoration location would eventually be.

16 To summarize our conclusions, on this
17 portion of our review, for the category 1 issues
18 presented in the Generic EIS that relate to the Oyster
19 Creek plant, we found no information that was both new
20 and significant. Therefore, we have preliminarily
21 adopted the conclusion that impacts associated with
22 these issues would be small.

23 In the Oyster Creek EIS, we analyzed the
24 remaining category 2 issues pertinent to the Oyster
25 Creek plant. And we determined that the environmental

1 impacts resulting from these issues were also small.

2 Lastly, we found that the environmental
3 effects of alternatives, at least in some impact
4 areas, would reach moderate or large levels of
5 significance.

6 Now I am going to switch gears a bit and
7 present the findings of the accident analysis for
8 Oyster Creek. We have Bob Palla in the audience.
9 He's from NRC. He was responsible for this portion of
10 the analysis and will be available for questions on
11 this particular topic.

12 The EIS evaluated two classes of
13 accidents: design-basis accidents and severe
14 accidents. Design-basis accidents are those accidents
15 that the plant is designed to withstand without risk
16 to the public. The ability of the plant to withstand
17 these accidents has to be demonstrated before the
18 plant is granted a license.

19 The licensee has to demonstrate acceptable
20 plant performance for design-basis accidents
21 throughout the life of the plant. The Generic EIS
22 considered design-basis accidents a category 1 issue.

23 The second category of accidents evaluated
24 in the EIS is severe accidents. Severe accidents
25 could result in substantial damage to the reactor

1 core. The Commission found in the Generic EIS that
2 the risk of a severe accident is small for all plants.
3 Nevertheless, the Commission determined that
4 alternatives to mitigate severe accidents must be
5 considered for all plants that had not already done
6 so.

7 These alternatives are termed SAMAs, or
8 severe accident mitigation alternatives. The SAMA
9 evaluation is a site-specific assessment. The purpose
10 of performing the SAMA evaluation is to ensure that
11 plant changes that have the potential for improving
12 severe accident safety performance are identified and
13 evaluated.

14 The scope of potential plant improvements
15 that were considered in the EIS include hardware
16 modifications, procedure changes, and training program
17 improvements, basically the full spectrum of potential
18 changes. The scope includes SAMAs that would prevent
19 core damage as well as SAMAs that improve containment
20 performance given that a core damage event occurs.

21 This slide shows the preliminary results
22 of that SAMA evaluation. There were 136 candidate
23 improvements identified for Oyster Creek. The number
24 of candidate SAMAs was reduced to 37 based on a
25 multi-step screening process.

1 A more detailed assessment of the risk
2 reduction potential and implementation costs was then
3 performed for each of the remaining 37 SAMAs. A total
4 of 15 SAMAs was identified as potentially
5 cost-beneficial.

6 None of these potentially cost-beneficial
7 SAMAs relate to managing the effects of plant aging
8 during the period of extended operation. Accordingly,
9 they are not required to be implemented as part of
10 license renewal. Regardless, the NRC staff considers
11 that further evaluation of the potentially
12 cost-beneficial SAMAs by AmerGen is warranted.

13 That concludes my portion of the talk.
14 Now I would like to turn the microphone back to Mike
15 for his wrap-up.

16 DR. MASNIK: Thank you, Kirk.

17 IV. HOW COMMENTS CAN BE SUBMITTED

18 DR. MASNIK: To reiterate our conclusions,
19 we found that the impact of license renewal is small
20 in all areas. We also concluded that alternatives to
21 license renewal, including the no-action alternative,
22 may have moderate to large environmental effects in
23 some intake impact categories.

24 The staff also evaluated alternatives to
25 the current cooling system and found that the

1 alternatives to the current once-through system could
2 result in moderate impacts in some resource areas.

3 Based on these results, our preliminary
4 recommendation is that the adverse environmental
5 impacts of license renewal for Oyster Creek are not so
6 great that preserving the option of license renewal
7 for energy-planning decision-makers would be
8 unreasonable.

9 Next slide, please. This is a quick recap
10 of our current status. We issued the draft on June
11 9th, 2006. We're currently in the middle of the
12 public comment period that is scheduled to end on
13 September 8th, 2006. And we expect to address the
14 public comments, make any necessary revisions to the
15 draft, and issue a final environmental impact
16 statement in January of 2007.

17 Next slide. This slide identifies me as
18 your primary point of contact with the NRC for
19 preparation of the environmental impact statement.

20 It also identifies where documents related
21 to our review may be found in the local area. The
22 Oyster Creek Draft Environmental Impact Statement,
23 along with a number of other documents, is available
24 at the Lacey Township Public Library. I was there
25 yesterday, and I found it on the shelves. And it

1 actually looked a little worn. So it looked like
2 someone had been reading it. All documents related to
3 the review are also available on our NRC Web site,
4 www.nrc.gov.

5 In addition, as you came in, you were
6 asked to fill out a registration card at the reception
7 desk. If you have included your address on that card,
8 we will mail you a copy of the final EIS. If you did
9 not fill out a card and you want a copy of the final
10 environmental impact statement on Oyster Creek, please
11 see Evan -- Evan, raise your hand -- after the
12 meeting. Evan will get you signed up.

13 Next slide. This slide shows how a member
14 of the public can submit comments by mail. You can
15 submit it directly to the address on the screen. It
16 will get to me. If you happen to be in Rockville,
17 Maryland, you can deliver your comments in person to
18 me. And if you have e-mail, you can e-mail to our
19 dedicated e-mail site, which is
20 OysterCreekEIS@nrc.gov.

21 With that, I would like to thank each of
22 you for coming here today. We eagerly await your
23 comments on our draft document. Thank you.

24 FACILITATOR CAMERON: Okay. Thank you,
25 Mike. Thanks, Kirk. We have time for some questions

1 to make sure that everybody understands the process
2 and findings in a Draft Environmental Impact
3 Statement.

4 Before we go to that, though, let me
5 introduce our senior manager, who is with us here this
6 afternoon. We have Mr. Frank Gillespie, who is the
7 Director of the Division of License Renewal at this
8 point. Thanks for being here, Frank. I think Frank
9 may help us to answer some questions but definitely
10 will talk to all of us later before the end of the
11 meeting.

12 Are there questions that we can answer
13 before we go to the public comment part of the
14 meeting? Yes, sir? And if you could just introduce
15 yourself to us, please?

16 MR. CREAMER: Yes. My name is Gene
17 Creamer from the seashore Town of Belmar, New Jersey.

18 A question for Mike. I appreciate him
19 explaining the license renewal process to us. I noted
20 in the draft environmental statement at the beginning,
21 it referenced the Atomic Energy Commission for Oyster
22 Creek Nuclear Generating Station had issued a final
23 Draft Environmental Impact Statement in 1974.

24 Could you please explain how that differs
25 from the current path that licensing first station

1 would go through now? It appears to me that that was
2 an after-the-fact environmental impact statement? In
3 other words, the plant was already in operation by
4 1974.

5 FACILITATOR CAMERON: Mike, do you get the
6 gist of the question?

7 DR. MASNIK: Yes.

8 FACILITATOR CAMERON: Okay.

9 DR. MASNIK: It's actually a pretty
10 obscure question. And I know the answer to it.

11 It turns out that the government passed
12 the National Environmental Policy Act in 1969. And
13 for a number of years, the old Atomic Energy
14 Commission actually resisted doing any sort of
15 environmental review for nuclear power plants.

16 And then we had a very famous decision in
17 the courts called the Calvert Cliffs decision, which
18 required the Atomic Energy Commission to do
19 environmental assessments for nuclear power plants.
20 That was an important decision because it essentially
21 established a policy of providing these EISes for each
22 of the plants.

23 Well, since Oyster Creek was built in and
24 began commercial operation in 1969, it predated that.
25 And there was a decision made at the Atomic Energy

1 Commission and its successor, the NRC, to go back and
2 do environmental impact statements on all the plants
3 that had current licenses and that were operating.

4 That's certainly not going to happen
5 today. If an applicant came in to build a new power
6 plant, the environmental assessment would be done in
7 advance of any construction activity.

8 FACILITATOR CAMERON: And, Gene, does that
9 answer your question?

10 MR. CREAMER: That brings another question
11 as to whether that was -- number one, I guess the
12 first question I have is, the NRC with their so-called
13 issuance on renewals for Generic Environmental Impact
14 Statements, which is what you're referencing here
15 today also, is that valid, number one?

16 In other words, to date, the only
17 environmental impact statement that has been performed
18 by a Federal agency for the current operating plant
19 was an after-the-fact environmental impact statement.

20 I find it very hard to believe that a
21 Federal agency was going to, with an after-the-fact
22 environmental impact statement, come to a conclusion
23 that its issuance or action to issue a permit was
24 incorrect. Am I correct?

25 DR. MASNIK: Well, I mean, I have looked

1 at that 1974 final environmental impact statement.
2 And for the state of the art of the science at the
3 time, I think it was a good effort and a reasonable
4 assessment of what the impacts might be from operation
5 of that plant.

6 Now, to say that we were 100 percent
7 accurate on all the issues over the 40-year life span,
8 it's probably not correct. But I think it was a good
9 assessment. And I think the assessment we're doing
10 now is much better.

11 We have essentially 30 years of experience
12 in predicting what the impacts might be from operating
13 nuclear power plants. And I think that, you know, we
14 have a pretty good assessment here as to what might
15 happen if this plant were to operate for another 20
16 years.

17 FACILITATOR CAMERON: Okay. Thank you,
18 Gene. Thank you.

19 Let's go to this gentleman. And then
20 we'll go over there. Yes, sir?

21 MR. RUBIN: My name is Isadore Rubin. I'm
22 a resident of Pine Beach, which is in Ocean County.

23 My question deals with the cooling tower.
24 A natural draft tower does not require fans. Why did
25 you consider the mechanical tower, which does require

1 fans and, therefore, uses more energy? That's the
2 first question.

3 The second question I have is related to
4 the salt. All cooling towers will give you some
5 mechanical carryover through the air or more part
6 overflow.

7 My question is this, this is located near
8 a very big ocean with a lot of salt in it. And the
9 wind is blowing salt there all the time. Is there
10 some significant difference between what we're going
11 to get out of these towers and especially out of the
12 natural draft towers?

13 Those are my two questions. Thank you.

14 FACILITATOR CAMERON: Thanks, Mr. Rubin.
15 Kirk, do you want to? Mike, do you want to answer?

16 DR. MASNIK: Well, I could start, yes.
17 First of all, it's a good question because obviously
18 there are two different types of towers. There's
19 mechanical draft, which are these low towers, and the
20 natural draft, which are the ones that are, you know,
21 anywhere from four to five hundred feet high.

22 We asked the licensee, "Okay. In a
23 request for additional information, what would you
24 propose if you went to a closed cycle cooling system?"
25 And that's the design that they came in with in their

1 response to our request for additional information.
2 So that's what we evaluated.

3 Now, to talk a little bit about the
4 differences, you know, certainly if you put a 530-foot
5 tower there, I mean, there would be quite a visual
6 intrusion on the skyline. And I think that may have
7 gone into some of the decisions on the part of the
8 licensee.

9 There's also a question of costs between
10 the two different types. So there are a number of
11 different reasons. And they chose the natural draft.
12 And that's the one we evaluated.

13 As far as the salt issue, you're correct
14 in that most plants -- and that's where our concern
15 is, primarily vegetation. Most plants are relatively
16 salt-tolerant close to the shore.

17 However, we really have very limited
18 experience with saltwater towers in this country.
19 There are a number worldwide. But the concentrations
20 of salt that we see at other towers on freshwater or
21 even brackish water are much lower. This is very
22 close to ocean water in salinity levels. So the
23 amount of salt coming from the tower would be greater
24 than we would experience at any other facility.

25 The plants that are salt-tolerant would

1 likely be not affected, but you have to understand
2 when people move into an area, they want to start
3 planting plants that they're familiar with and they
4 may not necessarily be as salt-tolerant.

5 The additional salt that could result from
6 the operation of these towers could affect the local
7 vegetation.

8 FACILITATOR CAMERON: And, Mike, Mr. Rubin
9 asked a question about salt, but I think that also
10 inherent there was a comment in terms of what the
11 draft EIS says about the effects of salt. And I take
12 it that that is something that we're going to have
13 evaluated or going to evaluate?

14 DR. MASNIK: Well, we did evaluate it to
15 some extent, but, you know, we certainly can look into
16 it.

17 FACILITATOR CAMERON: Okay. Thanks, Mr.
18 Rubin.

19 DR. MASNIK: The only other thing I would
20 say is that the deposition from a saltwater natural
21 draft tower would be over a larger area because you're
22 starting up higher. So with the natural draft [sic,
23 mechanical draft implied], which would be down lower,
24 the salt deposition might necessarily be not as spread
25 out. So there are a lot of factors on evaluating this

1 sort of thing.

2 FACILITATOR CAMERON: Okay. Thank you.
3 We're going to go back here.

4 MR. ALLISON: My name is Tom Allison. I'm
5 a resident of Island Heights, just down the road here.

6 On the slide you had on safety
7 improvements that are apparently not required for
8 relicensing, I guess I would like to know -- I mean,
9 that plant is of the Three Mile Island era.

10 Have there been improvements to deal with
11 what happened at Three Mile Island or have these
12 improvements not been done? Is it the way it always
13 was? And this is the fundamental plant operation.
14 The reactor shut down and responds. You avoid melting
15 the core and things like that.

16 But the plant could be relicensing
17 without, according to the slide unless I misunderstood
18 it, safety improvements?

19 FACILITATOR CAMERON: Back again. Bob,
20 there are two issues here. One concerns the SAMAs
21 that were not related to license renewal and their
22 cost-benefit.

23 Related to that question, though, Mr.
24 Allison asked, are all the safety improvements that
25 have occurred since TMI and whether those have been

1 incorporated into operating plants, such as Oyster
2 Creek?

3 I mean, there's a difference between the
4 SAMAs and some of his concerns. And if you could just
5 try to tie that together for us?

6 MR. PALLA: Okay. Let me try to keep it
7 simple. There were many changes made after Three Mile
8 Island. Three Mile Island was a pressurized water
9 reactor. Oyster Creek is a boiling water reactor,
10 but, nevertheless, following Three Mile Island, a
11 large number of improvements were identified for all
12 of the operating plants.

13 These have all been implemented. And the
14 risks that exist after implementation of these
15 improvements are kind of the starting point for the
16 severe accident mitigation alternative analysis here.

17 Basically, following Three Mile Island,
18 the risk was further reduced. There was a study
19 called the individual plant examination that occurred
20 in the 1990 time period. It used probabilistic risk
21 assessment techniques to further assess the level of
22 risk at operating plants.

23 All operating plants were required to
24 perform these individual plant examinations. Those
25 examinations looked at both internally initiated

1 events and external events, such as fires within the
2 plant and seismic events.

3 Those studies confirmed that the level of
4 risk was acceptably small to meet the Commission's
5 safety goals. And also, these studies also, for
6 Oyster Creek included, resulted in the identification
7 of additional changes that were made subsequent to the
8 completion of that study. And these probabilistic
9 risk assessment studies have continued to be
10 maintained by licensees and updated periodically. We
11 use the study for our SAMA analysis that's based on a
12 2004 version of the risk assessment study.

13 Now let me get to the question about the
14 15 or so SAMAs that you saw on the slide there. It
15 said there were 15 potentially cost-beneficial
16 improvements identified.

17 FACILITATOR CAMERON: Tom, we're going to
18 have to get you on the record, too. But let's let Bob
19 finish his answer. And we'll see if you have a
20 follow-up.

21 MR. PALLA: Well, the 15 improvements are
22 not required as a condition of license renewal, but
23 that's not to say that they are not going to be done.
24 And now at the point at which we wrote our evaluation,
25 we did not know at that point what the licensee

1 intended to do with those improvements, but
2 subsequently, and I guess we should consider including
3 this in the updated, the final version of the
4 supplement, the licensees indicated that a number of
5 these improvements are related to hardware changes.
6 Four of them would fall into that category. And then
7 a large number dealt with procedural changes.

8 Licensees indicated that the hardware
9 changes -- they basically identified a subset of four
10 hardware changes, that if implemented rendered all of
11 the other potentially cost-beneficial analyses in the
12 baseline case to be non-cost-beneficial.

13 So what I am trying to say is if you
14 carefully select the improvements, you don't have to
15 implement every single one of them to get the risk
16 reduction because some of them give you the same
17 benefits as some of the other ones.

18 So the four that have been identified as
19 hardware fixes are being further evaluated for
20 implementation. And then there is a number of
21 procedural changes, on the order of like 15 procedural
22 changes, that were not actually identified as
23 cost-beneficial. The licensees indicated that these
24 will be implemented as well at the time that the
25 procedures are coming up for revision, according to

1 the normal schedule for that.

2 FACILITATOR CAMERON: Okay.

3 MR. PALLA: So they're going to be making
4 the hardware changes, and they will be making a series
5 of procedural changes.

6 FACILITATOR CAMERON: Okay.

7 MR. PALLA: I'm sorry for the complicated
8 answer.

9 FACILITATOR CAMERON: But that's good. We
10 are going to update the document to reflect that. Is
11 that correct? We might?

12 MR. PALLA: Yes.

13 FACILITATOR CAMERON: Okay. All right.
14 A quick follow-up, please.

15 MR. ALLISON: How do you define
16 cost-beneficial?

17 MR. PALLA: Okay. There's an existing
18 level of risk, as provided by the probabilistic risk
19 assessment study. If you want to consider an
20 additional change to the plant, you would take the
21 risk study. You would modify the analysis to reflect
22 what that change does in terms of the core damage
23 frequency and what the change does in terms of the
24 off-site releases from the plant.

25 So you basically translate a potential

1 improvement into a change in, a reduction, in core
2 damage frequency, a reduction in population dose. And
3 there is a handbook, so-called handbook, for
4 regulatory analysis that's used to convert these
5 reductions in core damage frequency and reductions in
6 population dose into dollars.

7 So you basically assess a dollar benefit
8 to the change. And then you compare it with an
9 implementation cost. So if the implementation cost is
10 greater than the benefit, the dollar benefit, it would
11 not be cost-beneficial. And if the dollar benefit is
12 greater than the implementation costs, it is
13 cost-beneficial.

14 FACILITATOR CAMERON: Okay. Thanks, And,
15 Bob, if you could talk to Mr. Allison after the
16 meeting perhaps with more information on that? And I
17 guess I would just make that point generally.

18 We're going to go for three more
19 questions. And then we'll get on with the comments.
20 But if you do have questions or you need an
21 elaboration, the NRC staff will be here after the
22 meeting because we really want to get to talk to you.
23 We really want to get out to listen to your comments.

24 And I know -- is it Barbara? You're Joan.
25 I'm sorry.

1 MS. RUBIN: Joan. That's okay. My name
2 is Joan Rubin.

3 And in view of the fact that you said the
4 preliminary findings show that the environmental
5 impact on the Barnegat Bay, the aquatic environment,
6 would be small, how can you possibly determine the
7 quantifiable impacts of Oyster Creek on Barnegat Bay
8 if there has been no complete survey of aquatic marine
9 life since 1975 to about 1977, 30 years ago, with the
10 possible exception of 2 small studies in the early
11 '80s?

12 The NRC certainly in order to give a
13 meaningful impact statement has to compare what is
14 there now with what has been. And they should
15 certainly ask Exelon to perform a complete census of
16 the aquatic life of the Bay. Without it, as I said,
17 there can be no meaningful impact statement.

18 Maybe you can clarify this for me.

19 FACILITATOR CAMERON: Thank you, Mrs.
20 Rubin.

21 Michael?

22 DR. MASNIK: That's a very good question.
23 We devoted a lot of the discussion in the aquatic
24 section to this question.

25 There were a number of studies that were

1 done in the late '70s and early '80s in the bay. And
2 those studies were summarized in a 316(a) and 316(b)
3 determination demonstration that was submitted to the
4 state.

5 Subsequent to that, the State actually
6 hired a private consultant to look at the results of
7 this. And they came to the conclusion that the plant
8 was having no effect, no serious effect, on the bay.

9 Obviously the operation of the plant does
10 result in mortality of impingement due to
11 impingement/entrainment. And occasionally over time
12 we have had some instances where shutdown of the plant
13 or unusual operating conditions of the plant have
14 resulted in some fish kills.

15 Nevertheless, the State seems satisfied
16 that the plant was not having an effect, that the
17 plant did make some modifications. They've put in a
18 fish return system to further reduce the impact. And
19 the plant has operated since that time.

20 The licensee has instituted within the
21 last year a study within the confines of the site to
22 look at losses associated with impingement and
23 entrainment and has found, at least preliminarily,
24 although the data is not published, that the losses
25 associated with the plant are very similar to what

1 they found back in the late '70s and early '80s.

2 So based on the fact that we don't see any
3 real significant changes in the plant operation,
4 admittedly there's not a whole lot of data on the
5 fisheries within the bay. But the fact that the plant
6 doesn't seem to be taking organisms in different
7 proportions and in different amounts very differently
8 than back then, it's our conclusion that things
9 haven't changed and the plant is still not having a
10 significant impact on the aquatic environment.

11 FACILITATOR CAMERON: Okay. Thank you.
12 Thank you, Mike.

13 And I think we're going to hear from Joan
14 later in the meeting with a comment. And she may
15 raise that issue.

16 Yes, ma'am?

17 MS. DeMARZO: My name is Jane DeMarzo from
18 Barnegat, New Jersey. And I believe I will direct
19 this to Mr. LaGory.

20 You say that your analytical approach for
21 the Generic Environmental Impact Statement, you have
22 two categories, a category 1 and a category 2, and
23 that your impact levels are defined as small,
24 moderate, and large.

25 I would like to know the percentages of

1 small, moderate, and large. And when does a
2 percentage move from small into moderate or into
3 large?

4 DR. LaGORY: Yes. It's not quite
5 proportional in that way. The way it's defined is, as
6 I had on the slide, a small impact is an impact that
7 is either not measurable, so you couldn't go out and,
8 for instance, measure an effect on temperature, for
9 instance, or the effect on temperature was so small
10 that it was not causing any change in the population.
11 So maybe you could measure it, but it wasn't causing
12 some noticeable effect.

13 So it's not quite as quantitative as you
14 had mentioned. A moderate impact, then, is sort of a
15 step up, where you are able to measure it. There
16 isn't a measurable change in the target resource.
17 Let's say we're talking about aquatic resources. The
18 fish population was declining as a result of the
19 thermal impact.

20 But then the population was dropping,
21 let's say, ten percent. It was dropping to a lower
22 level but, then, staying stable. That's what the NRC
23 defined as a moderate level impact. There was an
24 effect, but the effect was a decline, a decline to
25 some lower but stable level.

1 Then the NRC defined a large impact as
2 being one that was both measurable and caused
3 destabilization of the resource of concern. So,
4 again, let's use the aquatic resources as the example.

5 And if we're looking at heat loading, if
6 we were having a change in the thermal regime that was
7 causing the aquatic resource, let's say a fishery, to
8 spiral, to continue to decline, it was eventually
9 going to go extinct as a consequence of that. That
10 would be considered a large impact. So it's obviously
11 a very noticeable large change in the resource.

12 So the category 1 and 2 issues, the
13 category 1 issues were all issues that were found to
14 be small for all plants. So it's related to impact
15 magnitude, but it's not directly so. Category 2
16 issues can have small, moderate, or large impacts as
17 well as category 1, category 1 all small, but category
18 2 could be small, moderate, or large.

19 FACILITATOR CAMERON: Okay. Thank you.
20 Thank you very much.

21 Ma'am, did you have a question?

22 MS. FINN: My name is Joan Finn, and I'm
23 from Waretown.

24 Because I live in the shadow of Oyster
25 Creek nuclear plant, I am basically concerned with

1 what seems to be not within the purview of the renewal
2 of the license; that is, radiation exposure, either
3 due to the containment system being faulty or not
4 having been checked. And I understand that that is
5 not within your purview for renewal.

6 So I would like to request that, as
7 Representative Saxton had requested, that the National
8 Academy of Sciences do an outside review of your
9 review and also that the Department of Environmental
10 Protection have some say in this renewal and not just
11 one organization because our lives are dependent on
12 this.

13 Thank you.

14 FACILITATOR CAMERON: Okay. Thank you,
15 Joan. That's more of a suggestion and comment. And
16 I think you are going to speak to us later on.

17 But, Mike, can you say anything about the
18 general concern and question there?

19 DR. MASNIK: I guess your comment is noted
20 relative to the National Academy of Sciences, but I do
21 want to let you know that EPA does review our
22 environmental impact statements. And we do get rather
23 extensive comments from EPA on a regular basis.

24 FACILITATOR CAMERON: And are those EPA
25 comments on the public record?

1 DR. MASNIK: Oh yes. Yes. They come in,
2 and we docket them. They typically comment on our
3 draft, and we respond to the comments and their
4 suggestions in the final, just like we would with a
5 public --

6 FACILITATOR CAMERON: Okay. We might want
7 to make sure that Joan knows where to get access to
8 those.

9 DR. MASNIK: Sure.

10 FACILITATOR CAMERON: All right. Dennis,
11 can you just introduce yourself?

12 MR. ZANNONI: Dennis Zannoni, New Jersey
13 DEP.

14 Is the EPA going to review this Draft
15 Environmental Impact Statement or not? You said
16 "typically."

17 DR. MASNIK: Well, you know, I can't
18 commit to the EPA actually providing comments. I can
19 tell you that out of the 42 plants we have reviewed,
20 probably 40 we have received comments from EPA.

21 MR. ZANNONI: Thank you.

22 DR. MASNIK: And I suspect we will in this
23 case as well.

24 FACILITATOR CAMERON: But in terms also of
25 Dennis' question, there's no uncertainty in the fact

1 that we submit all of the EISes, draft, to EPA. Is
2 that correct?

3 DR. MASNIK: Oh, absolutely.

4 FACILITATOR CAMERON: Okay.

5 DR. MASNIK: I mean, we have already sent
6 a copy to their regional office and requested
7 comments.

8 FACILITATOR CAMERON: All right. Did you
9 have a question or did you have a comment that you
10 want to make? Because I think we're ready to move on.
11 Okay.

12 Thank you for those questions. Please
13 avail yourself of the NRC staff after the meeting to
14 ask further questions, get more clarification. We do
15 have a number of people who want to comment this
16 afternoon. And I want to get to that part of the
17 meeting.

18 And, as I said at the beginning, I am
19 asking you to follow a five-minute guideline in your
20 comments. There's flexibility there, but I do want to
21 make sure that we get to everybody today.

22 I guess, as a matter of fact, we're going
23 to go to our first commenter. Joan, I think that that
24 is you if you would like to come up and just continue,
25 give us your comments.

1 Are you Joan Finn? Yes, Joan Finn. And
2 we're going to go to the other Joan, too. And there
3 may be more Joans, but this is Joan Finn.

4 MS. FINN: Thank you.

5 V. PUBLIC COMMENTS

6 MS. FINN: I'm a recent resident at
7 Waretown and hesitated to move there for one reason:
8 nuclear power plant. And I want very much not to be
9 afraid.

10 So I am here very informally speaking as
11 a citizen and not a member of a group, but my concern
12 after reading the articles in the Asbury Park Press,
13 if anybody is here is from the press, I want to thank
14 you for those series because they highlighted many of
15 the issues that I am concerned about, the most
16 important of which is that the containment system,
17 which was supposed repaired about ten years ago, has
18 not been repaired or looked at since then.

19 Why AmerGen refused to have a second or
20 third party look at that containment system I don't
21 know. I would like to have an answer to that and why
22 the cooling system that the Environmental Protection
23 Agency required later on did not have to be done.
24 That was a couple of years ago. They said it would
25 not be financially feasible. And that was not

1 explained either.

2 So I guess my biggest concerns are maybe
3 not with NRC -- I don't know -- but with AmerGen and,
4 again, with the renewal without questions being
5 answered.

6 I read some of the comments in the paper
7 that I picked up. A doctor had said that the
8 radiation effect on children in the area, on the
9 children's teeth in the area, was a whole lot higher
10 in the areas around nuclear power plants.

11 So what about that? Have you addressed
12 that? Is that in the purview of licensing or does the
13 idea of radiation in the environment not affect you if
14 you're not living here or in the shadow of another
15 nuclear power plant? That's a major concern I have,
16 not just for me but for people living in the area of
17 any nuclear power plant.

18 And the second is a question I have. How
19 much of the energy generated by Oyster Creek is
20 benefitting the people in the area where Oyster Creek
21 is situated? Do we in Ocean County have any of that
22 energy? Do we benefit from any of that energy? And
23 to what extent have those alternate plans really been
24 evaluated by the Environmental Protection Agency as
25 well as NRC?

1 So I have more questions than answers.
2 And thank you for listening.

3 FACILITATOR CAMERON: Okay. Thank you,
4 Joan. We are going to talk to you specifically about
5 those issues after the meeting. And I know we are
6 going to hear more about the radiation issue that you
7 raised from one of our commenters further down the
8 line. Thank you very much.

9 Ann Miles? Is Ann here? Hi, Ann. Would
10 you like to come up and comment? She stole your
11 thunder? Okay. You concur in those? You have the
12 same concerns, then? All right. Thank you, Ann.

13 Mr. Cervasio? Mr. Cervasio? How about
14 right up in front so we can all see you. Thank you
15 very much.

16 MR. CERVASIO: Okay. Good. Thank you.

17 My name is Tom Cervasio, Chairman,
18 EnviroWatch. There was a very interesting article in
19 the Asbury Park Press, the Asbury Park Press dated
20 November the 17th, year 2000. And it says, in effect,
21 the tests offered meltdown in the spent fuel pool of
22 a nuclear power plant because failed radiation-induced
23 cancer in thousands of people, as far as 500 miles
24 from the site, according to a U.S. Nuclear Regulatory
25 Commission study, according to a U.S. Nuclear

1 Regulatory Commission study.

2 The analysis of spent fuel pool meltdown
3 also states that millions of people within a 500-mile
4 zone might have to be evacuated for periods ranging
5 from 30 days to one year and that people living within
6 10 miles of a nuclear plant might never be able to
7 return to their homes.

8 It also states the potential for prompt
9 fatalities from radiation poisoning that would occur
10 in areas close to the plant, the plant site, where
11 emitting radioactive particles would be expected to
12 fall.

13 The extent of possible radiation damage
14 described in the NRC documents is far more severe than
15 anything that Federal officials have disclosed in
16 public forums or written statements.

17 The agency assessments are contained in a
18 special report prepared in October 2000 by experts
19 within the NRC and the Sandia National Laboratories in
20 Albuquerque, New Mexico.

21 The report was designed as an official NRC
22 planning regulation in February 2001. A copy of the
23 report was obtained by the Journal News. That's a New
24 York paper.

25 The report provides the basis for any

1 future NRC regulations on evacuation needs, safety
2 requirements, and insurance that compares the possible
3 damage caused by a spent fuel pool meltdown with that
4 of a meltdown in a fully operational nuclear reactor.

5 It was developed to show the NRC what
6 types of problems could occur in spent fuel pools when
7 nuclear plants are shut down, at which point the new
8 fuel rods would be placed in the pools and how long
9 they might pose a danger from meltdown and fire.

10 The potential spread contamination cited
11 in the report far exceeds the ten-mile zone the
12 nation's nuclear plants currently use in developing
13 emergency evacuation plans.

14 NRC officials said the evacuation plans
15 are intended to deal only with short-term radiation
16 poisoning, which is not likely to occur outside of the
17 ten-mile zone.

18 The report was pulled from the NRC public
19 database following the September 11th, 2001 terrorist
20 attack because agency spokesman Neil Sheehan said if
21 a terrorist decided to attack any plant in the United
22 States, not just at Indian Point; that is, in
23 formulation about which fatalities it could cause, the
24 exact knowledge of that could be very advantageous to
25 them.

1 The information was returned to the
2 database in April. However, because it is an official
3 regulation governing spent fuel operations and must be
4 accessible to plant operators, I wonder if it is
5 accessible to the public.

6 The report states that the analysis did
7 not base their findings on events due to sabotage. No
8 established method exists for estimating the
9 likelihood of a sabotage. Nor is there a method for
10 analyzing the effect of security provisions on that
11 likelihood. Thank you.

12 Instead, analysis examined various
13 accident scenarios ranging from worker mishaps to
14 plane crashes into spent fuel pools, buildings. The
15 report concluded that although the probability of such
16 accidents is extremely low, the effects of meltdown
17 would be enormous.

18 I have here a letter from Congressman
19 Saxton, James Saxton. And it says, in effect, "Like
20 you, I have concerns about the safety and security of
21 the plant. With this in mind, I have introduced H.R.
22 966, a bill that would require the National Academy of
23 Sciences to conduct an independent assessment of
24 safety and security issues prior to the NRC granting
25 relicensing approval.

1 "The bill would also require the
2 Commission to evaluate the facility with respect to
3 health risks, vulnerability to terrorist attacks,
4 evacuation plans, population increases, ability to
5 store nuclear waste, and the impact of nuclear
6 accident are during the relicensing process. The bill
7 is currently pending before the House Committee of
8 Energy and Commerce."

9 I wonder if this plan was made available
10 to the State Evacuation Committee, which I think would
11 be very, very important. I am here to try to get a
12 copy of this plan because I think it is of great
13 interest to all the people.

14 Thank you very much.

15 FACILITATOR CAMERON: Thank you, Tom.
16 We're going to go to Tom Allison.

17 MR. ALLISON: I would like to read you a
18 brief e-mail that I sent to Governor Corzine which
19 expresses my concerns about what's going on.

20 "Governor Corzine, I met you briefly in
21 Island Heights last summer, a place I love dearly, as
22 does my wife, whom I met there. I have for the past
23 26 years operated a New Jersey manufacturing and
24 engineering business in Moorestown in Riverside, New
25 Jersey, started by my father and not in any way

1 connected to nuclear power or Oyster Creek.

2 "Island Heights and especially Moorestown,
3 Riverside also, in fact, much of New Jersey is facing
4 a horrible and increasing risk from some nuclear
5 science and engineering issues related to Oyster
6 Creek.

7 "In the '60s and '70s, I was an engineer
8 working on naval and utility nuclear power plant
9 design projects. The Three Mile Island incident
10 happened while I was working at Burns and Roe in
11 Oradell, New Jersey.

12 "The reactor containment building, which
13 I believe saved the populous from a deadly radioactive
14 release, was designed by a Burns and Roe engineer
15 named Bob Palm, whom I work closely with.

16 "The TMI incident itself was essentially
17 caused by -- and this is a technical term -- cover-my-
18 ass plant management. An operator moves to first
19 operate the plant with a broken steam generator backup
20 feed pump, then to turn off emergency core cooling
21 after the reactor overheated due to failure of the
22 main feed pump.

23 "The TMI event caused the demise of the
24 U.S. nuclear power plant industry for quite a while.
25 But, as I learned shortly after it occurred, the

1 public's nuclear radiation risk is and continues to
2 become worse as a result. Little, if any, new and
3 important safety-related development is occurring. I
4 hope I am wrong about that statement.

5 "In 1979, the last Burns and Roe project
6 I worked on was a proposal for the Yucca Flats, Yucca
7 Mountain, Nevada safe storage facility for spent
8 reactor fuel, a very large supply, which is sitting
9 around in metal boxes" -- I may be incorrect about
10 that; they are these things with the concrete on the
11 outside of them -- "at Oyster Creek outside of any
12 reactor containment building.

13 "I was told at the time of TMI that the
14 reactor containment building, at least there, was
15 designed to take an aircraft hit from a 727, Boeing
16 727. Of course, the ones that did the World Trade
17 Center were much bigger aircraft. Will a containment
18 building take that? I don't know.

19 Spent fuel contains dangerous radioactive
20 stuff, some of which will take about 250,000 years to
21 completely decay. I have heard -- well, let me
22 continue. Twenty-six years after the project's 1979
23 inception, the geologically stable Yucca Mountain
24 storage site is still empty and I think under some
25 construction. And 26 more years worth of spent fuel

1 sits outside Oyster Creek's containment in our lovely
2 and heavily populated state.

3 Many of Europe's reactors have no
4 containment buildings. And the Chernobyl disaster
5 gave us an example of what can happen when a powered
6 reactor fails catastrophically.

7 I was interviewing a potential employee,
8 who came from the Ukraine. His description of
9 Chernobyl was extremely upsetting, particularly the
10 thyroid cancer story and the contaminated land story.

11 Given our state's population and our
12 precious shore communities adjacent to Oyster Creek,
13 we really need to do something effective now
14 concerning spent fuel and perhaps safety.

15 Thank you.

16 FACILITATOR CAMERON: Okay. Thank you,
17 Tom Allison.

18 And we're going to go to Mike Kennish.

19 MR. KENNISH: My name's Mike Kennish. I
20 am a research professor at Rutgers University. I have
21 a long history of research experience in coastal
22 waters of New Jersey, including Barnegat Bay, Little
23 Egg Harbor Estuary.

24 I just want to mention one thing. I've
25 been quoted a couple of times in the report. My main

1 reason for being here was the quotes that were in that
2 report, which indicate -- well, I can read one in
3 particular. It states that "Despite large numbers of
4 eggs, larvae, and small life forms at Barnegat Bay,
5 organisms lost via impact passage at the OCNGS, these
6 losses have not resulted in technical impacts on
7 biotic communities in Barnegat Bay."

8 I want to emphasize that this publication
9 that is in reference to, which I have edited and
10 published after extensive peer review, among other
11 things I have done in the bay, is in reference to a
12 review of other documents, and of old material that
13 goes back to 1975-77, 316(a) and (b) demonstration
14 reports as well as the VERSAR report. I think it was
15 '88 and '89.

16 And so that is not an assessment of what
17 I see today in terms of looking at the entire picture,
18 the entire window from 1969 until today. And largely
19 the report, the NRC's report, related to aquatic
20 impacts, they have done the best job they could do
21 with it considering the material they had to deal
22 with, but it's relatively irrelevant because if you
23 don't take into account impingement and entrainment
24 and sampling at the same time in an assessed water
25 body, in this case a central part of Barnegat Bay, the

1 information is it's impossible to draw a proper
2 assessment.

3 If you take the variation of a population
4 in Barnegat Bay of any organism, at any one time, it
5 could be two to three hundred percent. And to take a
6 comparison of a population of how many organisms are
7 being impinged or entrained at one time and then say,
8 "Thirty years or 25 years later, you're comparing
9 these numbers," that's also irrelevant because it
10 doesn't take into account these fluctuations in the
11 natural populations in the water body in the adult
12 form.

13 When they did these studies back in 1975,
14 they did it. The only time it was ever relevant was
15 when they did the work in 1975 and '77, when they
16 actually had impingement and entrainment numbers and
17 they did population surveys at the same time.

18 So you're dealing with old data, 30 years
19 old. Today's information in that report is
20 irrelevant. And, as it's not NRC's fault, the real
21 problem lies with the Clean Water Act people, the EPA,
22 and the DEP, who did not provide sufficient oversight
23 on the parent company in terms of making sure that
24 they did population surveys routinely and cyclical or
25 periodic in the bay.

1 With a variation of two to three hundred
2 percent in populations at any one time, you really
3 should be doing population surveys almost every year.
4 And considering the cost of that, I understand, but
5 you should at least do it every five years.

6 It was not done for 30 years. And someone
7 dropped the ball completely. And, in fact, if you
8 have a parent company that espouses that they are
9 environmentally friendly and concerned about the
10 environment of the estuary, then it would be incumbent
11 upon the company's own scientists.

12 Some of whom have been there for 30 years
13 themselves know better that they could have been doing
14 population surveys periodically. That would have made
15 the NRC's job much more easy to comprehend, to deal
16 with and provide you with the necessary and accurate
17 information that you need.

18 There are problematic areas. For example,
19 the shellfish beds of Barnegat Bay have been on
20 decline. That was a species which was a
21 representative important species back in 1975 and '77.
22 And it was not followed through.

23 If you want to get into the statement to
24 me that there are no observable impacts, well, one
25 could contend that there is a correlation or

1 association with that because hard clams have been on
2 decline in the bay, in the central bay, for some time.
3 There is also some indication that winter flounder
4 populations are negatively impacted in the central bay
5 as well.

6 I am not saying all of these things are
7 due to the plant because I can't as a scientist and I
8 won't do that. I want to be able to take data and to
9 do data as a scientist and assess things as a
10 scientist and come up with an effective proper
11 conclusion.

12 This can't be done the way it has been
13 done in this process over the 30-year period. The
14 information in the report is not accurate. It can't
15 be accurate when you don't have population surveys
16 that are conducted concurrently with impingement and
17 entrainment studies.

18 And, by the way, they are conducting
19 impingement and entrainment studies today right now at
20 the power plant, which, again, are irrelevant. I'll
21 repeat that: irrelevant unless they do surveys in the
22 bay, which they're not doing.

23 And to be able to go back and say, "Well,
24 we have 10^{13} power of polychaete worm being cropped by
25 the power plant today, and we had 10^{12} back in 1977.

1 Therefore, everything seems to be okay" can't be done
2 that way, not scientifically.

3 You send that report out to my colleagues
4 at Penn State and other universities. It would be
5 rejected so quickly. It would be rejected very
6 quickly. And that's part of the problem.

7 You really need to take this information.
8 Someone mentioned the Academy of Sciences. You have
9 to have an outside, independent body doing assessment
10 on things. You can't keep things locked into a state
11 agency or a Federal agency. You need to have an
12 independent body that has no buy-in, no monetary
13 reason of interest, namely an interest in doing it for
14 scientific purposes.

15 I certainly fall into that category. I
16 have no interest in whether a company is making money
17 or -- you know, I would like to help the NRC and other
18 government agency bodies to do their job. I'll do it
19 for nothing to do it right.

20 I mean, I live in Ocean County myself. So
21 if there's any reason for me to be concerned about all
22 of this, it's that I live in the county, too, and
23 because I do all kinds of oceanography stuff in New
24 Jersey and elsewhere. So I have to be near the ocean
25 pretty much.

1 But, again, I have a lot I could talk
2 about. I could answer a lot of questions. I want to
3 work with the DEP, quite frankly, Susan, and offer my
4 services free -- I'll repeat that: free of my time
5 and services -- to develop a way that we should be
6 addressing these problems at the power plant and in
7 the bay.

8 You have to do population studies and
9 community studies in the estuary. If you don't do
10 that, the information is of no value. It's
11 essentially no value. In fact, the power plant, it
12 would be my recommendation that they do it because if
13 you just look at impingement and entrainment data at
14 the power plant, those numbers indicate that you have
15 an absolute number of organisms that are dying because
16 of the plant. They're very large.

17 And so someone would say, "Well, my God.
18 You have all these organisms dying." Well, you really
19 need to take a study of the bay population and because
20 those numbers may really not be translating into a
21 real impact, as has been said by Mike and so on and
22 his colleagues.

23 So it would be to their advantage to do a
24 population survey in the bay because if it can be
25 demonstrated that the adult populations out there are

1 not really being adversely affected, then you have
2 something. But to play this guessing game or not
3 really wanting to do population surveys out there and
4 just using these numbers at the plant, it actually
5 makes it look even worse because it looks like these
6 are an absolute number of organisms that are dying,
7 you know, a quarter of a million blue crabs a year at
8 the intake screens, for example.

9 What does that mean in terms of the total
10 population of crabs in the bay? Maybe it's one
11 percent. But for a crab potter out there who says,
12 "Oh, my God, 250,000?" the guy is going to go bonkers,
13 you know.

14 So we really need to really do things
15 correctly, do it scientifically sound. That is not
16 being done right now. And, again, I'm willing. I'm
17 offering my services to help out, help out the company
18 and help out the DEP and EPA. Part of the problem is
19 the EPA itself has rescinded some of its obligations
20 in terms of not enforcing or having the power
21 companies do population surveys.

22 So the companies themselves seem to
23 respond mostly to pressure from outside the government
24 agencies. They respond to pressure from a government
25 agency. They're not doing things on their own

1 volition in my opinion.

2 If you go back into time, the response
3 mainly is to a response to some requirement and after
4 a permit violation or whatever, rather than someone
5 taking the proactive position ahead of time to do
6 something about it so that you remediate the problem
7 before it even occurs.

8 And, finally, one final point, which I'm
9 really opposed to, is this giving someone an alternate
10 remediation pathway. If you're impacting weakfish in
11 Delaware Bay, as the Salem plant was, you don't go
12 into a tidal marsh and try to remediate a tidal marsh,
13 where weakfish don't hang out. Okay? And that stuff
14 is nonsense.

15 These companies should be -- again, in
16 this case, it bothers me. The companies, if you're
17 using a natural resource, like seawater or an estuary,
18 you should be addressing the effect that you're having
19 on, directly on, the exact problem. Don't take it to
20 some other habitat. And that is true in Barnegat Bay.

21 There's nothing wrong with our tidal
22 marshes in Barnegat Bay. We should be doing work in
23 the bay itself, in the center of the bay. The
24 communities are degraded out there.

25 I'm telling you, and I could write three

1 books about this. Okay? And I'm letting you know
2 I've done a lot of work out there. That bay is
3 degraded. And we need to do something about it.

4 And putting a fishing reef about three
5 miles off or Barnegat Inlet is not the way to do it.
6 Okay? It's not the way to do it. You put the funds
7 in the Barnegat Bay, not into some reef three miles
8 off the Barnegat Inlet. That does not have anything
9 to do with the health of Barnegat Bay.

10 FACILITATOR CAMERON: Okay. Thank you.
11 Thank you much.

12 (Applause.)

13 FACILITATOR CAMERON: Gene, Gene Creamer?

14 MR. CREAMER: Gene Creamer from Belmar
15 again. By the way, I'm glad -- I don't have formal
16 prepared comments, but I do have some notes. I'm glad
17 that you did provide copies of the draft report. I
18 would like to make a reference to specific sections.
19 Otherwise this is not going to make any sense at all.

20 Figure 2-3 on page 2-4. It's the Oyster
21 Creek Nuclear Generating Station site property map.
22 If you would just take a look at it? You will note
23 that both Oyster Creek and the South Branch of Forked
24 River west of the plant are delineated with dotted
25 lines.

1 Well, I'll tell you what I did. I checked
2 the USGS map plot and brought a copy of it here today.
3 You can clearly see that both Oyster Creek and the
4 south branch of Forked River on USGS quad map are
5 solid blue lines.

6 That may not seem significant, but to an
7 ichthyologist or people that use USGS maps as
8 reference material, the dotted line indicates
9 according to USGS legend an intermittent stream and
10 one that does not carry constant flow of water. At
11 best, this map to me is misleading.

12 I also noted that this map I guess was
13 widely distributed and used for submission to other
14 agencies to solicit comments. I'll leave it to the
15 NRC to develop some sort of standards of integrity
16 when it comes to using this sort of information.

17 Oh, I'm sorry. I guess what I'm doing is
18 backing up away from the microphone as I speak. In
19 brief, I'll just repeat. The site boundary map on
20 page 2-4 uses dotted lines to delineate or to lay out
21 the south branch of the Forked River and Oyster Creek.

22 I compared that map to a USGS quad map,
23 which is the standard map that's used for showing the
24 location of a plant and the surrounding environment.
25 The difference between the map in the report and the

1 USGS quad map is that the USGS quad map shows those
2 streams as being regular streams, not intermittent
3 streams, as shown on the map that is included in the
4 draft report. That is my first comment.

5 Second comment. Section 2.1.7 in the
6 draft report, I think it's titled "Power Transmission
7 System." That entire section, I read through it. And
8 it's silent with respect to the Oyster Creek Nuclear
9 Generating Station output power transformers, does not
10 indicate their location, the ownership, and the
11 responsibility of those transformers.

12 Just as an aside, I'm sure all the people
13 from NRC know once you have a fault in an output power
14 transformer, it shuts the plant down. The plant
15 automatically has to shut down.

16 A lot of verbiage in that section was
17 devoted to local distribution system and essentially
18 a backup power supply. And the title of the section
19 was "Power Transmission System."

20 The next comment I have is on section
21 2.2.2. And that section is titled "Water Use." If we
22 just look at page -- it looks like 2-19. You have to
23 excuse me, by the way. I just got new glasses
24 yesterday. I'm having a little bit of difficulty
25 getting accustomed to using them.

1 The fourth paragraph down, second line,
2 "Information on the two production wells at Oyster
3 Creek Nuclear Generating Station is available in a
4 water use registration (NJDEP 2001A), which is
5 required for users of less than 100,000 gallons per
6 day." That statement is incorrect.

7 The 100,000 gallons per day is a
8 regulatory threshold. The installation of equipment,
9 which could divert 100,000 gallons a day of the waters
10 of the State of New Jersey or more requires a permit.
11 That permit is, I believe, covered by the Water Supply
12 Act and is typically referred to as a water allocation
13 permit.

14 If you read on in that section, you will
15 see that it refers to two production wells. If you
16 run the numbers for those pump rates, you will see
17 that they both exceed 100,000 gallons per day. That's
18 why they're regulated.

19 This brings up a whole fascinating issue
20 here. Then the section goes on and describes
21 freshwater that's used in what's referred to as a fire
22 pond. It does not describe the pumps or the capacity
23 of those pumps that could be used to divert the water,
24 the fresh water, from the fire pond.

25 If those pumps have a capacity of

1 diverting in excess of 100,000 gallons per day, my
2 interpretation of New Jersey state law is that they
3 would require a water allocation permit.

4 I'm not sure whether discovery is supposed
5 to take place at these sorts of hearings, but I would
6 like to bring this to your attention. Similarly,
7 south branch of Forked River is a USGS quad, solid
8 blue-delineated stream, solid blue-delineated going
9 westerly beyond the Garden State Parkway. Its
10 drainage area is significant.

11 The entire flow of the south branch of the
12 Forked River is diverted by operation of the cooling
13 water pumps of the Oyster Creek Nuclear Generating
14 Station.

15 I did a review of, I believe it is called,
16 Appendix E, a listing of -- I believe there is a
17 listing of permits and approvals that the station or
18 the owner has provided. I find no permit issued for
19 the fire pond water, which I believe is actually
20 Oyster Creek water, another stream. I find no permit
21 for the diversion of water from the south branch of
22 Forked River.

23 I guess my question here -- oh, the other
24 thing I wanted to mention, the section does mention
25 that the wells have installed meters. And the way

1 this usually works is that the applicant -- those are
2 totalizing flow meters -- that the applicant takes
3 readings and supplies those readings to the NJDEP on
4 a periodic basis. And then the DEP sends the owner an
5 invoice to pay a bill.

6 I know you have used the terms "small,"
7 "moderate," "large." If you look at the millions of
8 gallons, I think that we're talking here about
9 diverted New Jersey state water. We may be able to
10 get things large.

11 Also, the moderate, estimated moderate,
12 impact of the installation of a cooling tower system
13 because of the assumption that saltwater would be used
14 for that cooling water does not take into consider
15 that perhaps the use of freshwater would reduce that
16 impact.

17 Thank you. I'm not done with my comment.
18 Well, I'm done with my comments here today, but I'll
19 follow through with review of the report.

20 FACILITATOR CAMERON: Great. Thank you
21 very much, Gene. It all sounds very useful. And
22 thanks for spending the time looking through the
23 document. We'll look forward to your comments.

24 We're going to go to Barbara, Barbara
25 Bailine. Just so you can get ready, after Barbara, we

1 are going to go to Joan Rubin and then to Ed Stroup.
2 And this is Barbara.

3 MS. BAILINE: Barbara, yes. Can you hear
4 me okay in the back? I have two questions and a
5 comment.

6 I would like to feel relieved because of
7 all the charts and the diagrams to calm my fears.
8 However, still in my heart still pumps a little hard
9 there.

10 I wanted to ask the NRC, how is it that
11 they missed that ten-year tritium leak? I think it
12 was called Briarwood out in Pennsylvania. And nobody
13 caught it. The NRC certainly didn't catch it. It was
14 a neighbor who saw a pool forming on his land and had
15 it checked and found out it was radioactive tritium.
16 I'm just wondering why ten years when the NRC claims
17 they're so thorough and they missed it. That's my
18 first question. And I would like it answered.

19 The other question I have is I understand
20 that out in California, the courts ruled against the
21 NRC and said because of the design of the plant and
22 the vulnerability of the fuel pool, that the NRC had
23 to take into consideration a terrorist attack, even
24 though the NRC claims it was very minimal. But the
25 court said, "No. It is not minimal in this day and

1 age." So I would like that answered.

2 The comment I am going to make now has to
3 do with something that happened up in Boston very
4 recently, but I think it's apropos. A tunnel was
5 closed up there just a couple of days ago when a huge
6 panel fell off the roof and crushed a woman in her car
7 driving through.

8 They closed up the tunnel. But what I
9 feel is apropos is that the head of the Port Authority
10 -- I don't know his name offhand, but he's the head of
11 it there -- after the woman is dead, crushed to death,
12 the tunnel is closed, he says to the press and the
13 public, "Well, I want to assure everybody the tunnels
14 are safe," you know, somehow that he could say that
15 after, "Oh, my God," they had to close up the tunnel
16 and the woman is crushed to death in her car and he
17 says, "Don't worry about it, people. The tunnel is
18 safe."

19 Okay. That is my comment. And those are
20 the two questions I have. Thank you.

21 FACILITATOR CAMERON: Okay. Thank you,
22 Barbara. And we will try to answer those questions.
23 The first may be offline, but the second one may be
24 important enough that we might want to just give an
25 answer to that during the meeting if we have time

1 before it closes.

2 We're going to go to Mr. Joe Mangano right
3 now, Radiation and Public Health Project. Joe?

4 MR. MANGANO: Good afternoon. I'm sorry
5 to those two speakers that I kind of bumped here.

6 Again, my name is Joseph Mangano. I am
7 National Coordinator of a group called Radiation and
8 Public Health Project. We are a group of scientific
9 and health professionals that do research on health
10 risks from nuclear weapons and nuclear reactors. We
11 have published 22 medical journal articles and 5 books
12 on the topic in the past 12 years.

13 I have some brief comments to make on the
14 environmental impact statement that has been discussed
15 today. Basic comment is that from the issue that our
16 group deals with -- and that is the issue of human
17 health -- my colleagues and I believe this report is
18 very, very deficient, even irresponsible, even
19 dangerous.

20 The reason for this is that the NRC makes
21 a very, very large presumption. They presume that as
22 long as emissions of radiation into the environment
23 from Oyster Creek are below permissible limits,
24 therefore, they can presume to be harmless. And there
25 is no need to do any health studies or health analyses

1 and reports such as this.

2 Now, I am a public health researcher. We
3 are trained not to make presumptions like this. This
4 is almost like presuming that if one smokes three
5 cigarettes a day or less, let's say, this is a safe
6 level of cigarette intake and there is no harm
7 involved and no need to do health studies.

8 Well, the more professional way to go
9 about it is to don't make any such presumption, to do
10 the health studies, especially when we have a long
11 history in the atomic age of presumptions of low dose
12 being safe later found out to being the reverse, to
13 being harmful.

14 Years ago, doctors did X-rays, pelvic
15 X-rays, on women who were pregnant. Up until the
16 1970s, they were found to increase childhood cancer.
17 Discontinued.

18 For many years, the government said that
19 the bomb tests from Nevada did no harm to Americans.
20 In 1997, a Federal study showed that as many as
21 212,000 Americans suffered thyroid cancer from the
22 tests.

23 For years, the government said that
24 workers in nuclear weapons plants were not harmed. In
25 2000, the government reversed their policy and passed

1 a law, agreeing to compensate cancer victims who
2 worked in nuclear weapons plants. So we must take the
3 same approach here with routine emissions, low dose
4 that they are, with nuclear power plants.

5 A good environmental impact statement I
6 believe should contain information on at least four
7 items: the amount of emissions, the amount of
8 radioactivity in the environment, the amount of
9 radioactivity in bodies of people living near nuclear
10 plants, and cancer rates in the local area. Our group
11 has done considerable work on this near Oyster Creek
12 and near other nuclear plants.

13 As far as the first one, emissions, go,
14 Oyster Creek, of the 103 reactors now operating in the
15 United States, Oyster Creek has emitted the greatest
16 amount of airborne radioactivity, of any of the
17 reactors, something around 77 curies, what we call
18 iodine-131 and particulates, anything with, you know,
19 a half-life of 8 days or more, and 5 times as much as
20 was officially released at Three Mile Island. Okay.

21 Even individual chemicals, such as
22 strontium-90, strontium-89, iodine-131, barium-140,
23 Oyster Creek consistently ranks in the top five
24 reactors in the United States. You can go right on
25 the NRC Web site and find out the data for the last

1 couple of years.

2 Number two, environmental radioactivity.
3 If you go to the Web site that's run by the EPA, they
4 have extensive data on levels of radioactivity in the
5 environment, in the air and the water and the soil and
6 so forth.

7 Water-borne radioactivity in Waretown,
8 which is just one mile from the plant, is between 2
9 times and 10 times as high as that at Trenton, for
10 example, which is 50 miles from here.

11 Number three, in-body levels of radiation.
12 Until our group came along, no one had ever done any
13 sort of a study on how much radiation was in bodies of
14 people who live near nuclear power plants. Okay?

15 We began in 1998 something called the baby
16 tooth study or the tooth fairy study. It is not a new
17 idea. It has been done in the past before. A group
18 of scientists from St. Louis in the '50s and '60s did
19 a study of strontium-90 in baby teeth that resulted
20 from bomb test fallout. There have been studies of
21 strontium-90 after Chernobyl. There's another one of
22 near the Sellafield plant in England.

23 Our study has looked at almost 5,000
24 teeth. Over 600 are from New Jersey. We have found
25 a couple of alarming things. Near every plant,

1 including Oyster Creek, number one, from the late '80s
2 to the late '90s, the average strontium-90 in baby
3 teeth of local children has increased about 50
4 percent.

5 Now, one of the handouts in the back is a
6 fact sheet on the baby tooth study, which says that
7 the study has been discredited. Well, I beg to
8 differ. We have published articles in five different
9 medical journals. That has gotten the peer review
10 stamp of approval from experts, who say the study is
11 worthy of publication.

12 The contention of people who oppose the
13 study is that the strontium-90 that comes out of the
14 reactors that gets into people's body, it's all
15 leftover bomb test fallout from the '50s and '60s.
16 Well, if that were the case, why did we find such a
17 sharp increase near Oyster Creek, near Limerick, near
18 Indian Point, near Millstone, near the reactors in
19 Florida, and so forth?

20 The final point in cancer. You can't in
21 my opinion and my colleagues' opinion recommend that
22 a reactor operate for another 20 years without doing
23 a good report card of what the health status and
24 health changes have been in the local area in the
25 first 37 years this plant has been running.

1 The statistics, we certainly haven't done
2 a comprehensive review, but we have certainly gone
3 through childhood cancer statistics. And they're
4 quite poor.

5 Ocean and Monmouth Counties for years have
6 been much higher than state or national, about 25
7 percent higher. The cancer death rate among children
8 in these 2 counties is something like 43 percent
9 higher in the last decade.

10 You all well know that in about a decade
11 ago, there was a large, the revelation of a large,
12 outbreak of childhood cancer in Toms River, which is
13 right here and close to Oyster Creek.

14 Now, the State Health Department looked
15 for something like 6 years and spent \$10 million,
16 found no environmental connections, but this shouldn't
17 end it. When we have this many great concerns here,
18 we should not be giving carte blanche or this reactor
19 to operate another 20 years.

20 So I say, in conclusion, I urge the NRC,
21 number one, to commission independent health studies
22 on these topics; number two, to not take any position
23 on reactor extension until these issues have been
24 completely examined and completely resolved because
25 there is nothing more important than human health.

1 Thank you for your time.

2 (Applause.)

3 FACILITATOR CAMERON: Thank you, Joe, for
4 coming down. And, as Joe pointed out, he and his
5 group have been involved in this for a long time. And
6 there's been an extensive dialogue with the NRC on
7 this. Joe mentioned that the NRC has done an
8 assessment. And, from his remarks, obviously he
9 disagrees with it. But it is back on the table for
10 those of you who want to read that piece.

11 Now we're going to go back to -- is it
12 Joan? -- Joan Rubin. Thank you, Joan.

13 MS. RUBIN: Hello. Thank you. Thank you.
14 I hope that's good. Okay.

15 Well, I came here today. I am definitely
16 opposed to the relicensing of Oyster Creek, but I came
17 here wanting to hear what was being said. And I have
18 to say that I think now that I evaluate that report
19 from my limited background. But I have to say that I
20 think it's junk science.

21 I think that these conclusions of the NRC
22 are based on old data, a static attitude towards the
23 data that does exist, an assumption that if things
24 haven't gotten worse, they're all right and in general
25 a very negative, not-caring attitude about public

1 welfare.

2 First of all, let's just talk about
3 something that Joe Mangano said, I guess, the
4 radioactive emissions, which are put out, which is
5 okay with the NRC. However, recently the National
6 Academy of Sciences in their BEIR VII, which is an
7 acronym, said that no amount of radiation is
8 acceptable. Any amount is dangerous.

9 And we know that we see around us the
10 incidence of cancer, for instance, is just on the
11 increase. But that is obviously anecdotal. I haven't
12 done a scientific study. Why hasn't the NRC changed
13 its category 1 evaluation? In other words, this is
14 small, a small risk.

15 Then we have the idea of Barnegat Bay
16 corruption. Now, that was addressed by Professor
17 Kennish. And there's really nothing I could add.
18 He's an expert. But the point is that the NRC relies
19 on data 30 years old. That's unacceptable. And this
20 is what we are supposed to swallow as the public.

21 Another thing, I am at a loss to
22 understand how the substitution of such passive energy
23 sources as wind or solar power could have a moderate
24 or large effect as compared to the small effect of the
25 plant.

1 I mean, common sense tells you that
2 perhaps there would be some initial disruption of the
3 environment in the building of these energy sources,
4 but ultimately it is bound to have a small. Sure, if
5 you're going to compare it with an unclean coal plant,
6 I mean, your worst possible case, just like the
7 cooling towers are the outdated type of cooling power
8 for a nuclear plant. They should be natural draft and
9 not mechanical or forced draft. I mean, if you're
10 going to compare things like that, that is
11 unforgivable in my opinion.

12 The Oyster Creek contributes a maximum of
13 650 megawatts. And we all know that that is
14 presenting a huge risk to Ocean County and to the rest
15 of the State, certainly the adjoining counties, for a
16 very small amount of electricity. I don't see a
17 cost-benefit or a risk-benefit assessment giving us
18 anything but very negative results on that.

19 You know Barbara mentioned the tritium
20 problem. That's only beginning the contamination of
21 our groundwater by tritium. It happens to be able to
22 spread very easily, and that hasn't even been
23 considered.

24 The fuel pool. Sure, if everything is
25 working all right and it's covered, it's not

10 Thank you.

12 FACILITATOR CAMERON: Okay. Thank you,
13 Joan.

17 MR. RAYMENT: Thanks.

25 I'm very interested in not only nuclear

1 safety but industrial safety at the plant. I'm just
2 here to tell you that I believe that Oyster Creek
3 should get a license extension.

4 The members of IBEW local 1289 are at the
5 plant 24 hours a day 7 days a week. We don't see old
6 data. We see data that is happening right now every
7 day. And I can tell you that the plant is run safe,
8 and we are committed to making sure it continues to
9 run safe.

10 I live in Barnegat, which is less than
11 five miles away from Oyster Creek. My wife and my
12 children are within five miles of the plant. So are
13 my parents. So is my brother. And I would never
14 compromise their safety to see the power plant
15 continue to run.

16 My expertise is in radiation protection,
17 and I can tell you that Oyster Creek is a safe plant,
18 both radiologically and as far as the environmental is
19 concerned.

20 We have the operators and the radiation
21 protection technicians, the mechanics, who are highly
22 trained individuals who care, first of all, about the
23 operation of the plant and the safety of the public
24 and the safety of our families.

25 Thank you.

1 (Applause.)

2 FACILITATOR CAMERON: Okay. Thank you,
3 John.

4 Next we have Ed Stroup.

5 MR. STROUP: Thank you.

6 My name is Ed Stroup. I'm President of
7 local 1289. I represent about 230 bargaining unit
8 members at Oyster Creek. I can tell you you are going
9 to hear a common theme between what John just told you
10 and I am going to say.

11 Both John's remarks and my remarks were
12 prepared independently. Neither of us talked to the
13 other one about what we were going to say, but what we
14 do know is Oyster Creek and the people that work
15 there. And I think that you're going to see a common
16 theme between the two based on our firsthand knowledge
17 of the plant and the people who work there.

18 Our members are highly skilled and highly
19 trained, as is everyone at Oyster Creek: union,
20 management, and security. Each is a skilled
21 professional in their field. I can assure you they
22 all take their responsibility seriously and work hard
23 to ensure the safety of the public and the environment
24 all day every day.

25 It is my belief that one of the great

1 injustices in this whole relicensing process is that
2 these dedicated professionals along with the NRC and
3 the State Police are treated with contempt and
4 referred to basically as incompetent by some whose
5 only agenda is to close Oyster Creek and all nuclear
6 plants.

7 Our members live and work in the local
8 community. Their families live close to the plant,
9 and their children go to school here. Our lives and
10 those we love are local to Oyster Creek along with the
11 public that we serve.

12 We would never compromise our principles
13 or the safety of the plant and the public. Oyster
14 Creek produces enough energy to power 600,000
15 (households) and adds \$52 million a year to the local
16 economy.

17 We contributed \$202,000 to United Way last
18 year and over half a million over the last 3 years.
19 We contributed \$80,000 last year to the New Jersey DEP
20 Fish and Wildlife Department and \$5,000 to the Audubon
21 Society to help clean waterfowl affected by the
22 Delaware River oil spill.

23 Oyster Creek sponsored and installed an
24 artificial reef in the Bay working with the New Jersey
25 DEP. At the same time it was undertaking these

1 environmental projects, Oyster Creek produced zero
2 carbon emissions and avoided 7.5 million metric tons
3 of carbon dioxide that replacement power would have
4 produced.

5 Oyster Creek avoids carbon emissions equal
6 to more than two million cars per year or, to put it
7 in a different way, an amount equal to half of all the
8 motor vehicles in New Jersey.

9 At Oyster Creek, we work hard to protect
10 the environment, including Barnegat Bay. On a
11 day-to-day, hour-to-hour basis, we monitor water
12 temperatures and regularly take water samples to
13 ensure safety.

14 We coordinate any planned load reductions
15 or shutdowns to avoid any risks to marine life. This
16 is a costly practice but essential to meet out
17 commitment to the environment.

18 I can assure you our members, as well as
19 management and security, are all highly trained,
20 highly skilled professionals who take their
21 responsibilities seriously. Their first priority is
22 to protect the public and the environment. They
23 ensure that Oyster Creek is a safe, clean, reliable,
24 environmentally friendly plant all day every day.

25 It is for all these reasons and others

1 that I urge you to relicense Oyster Creek. Thank you.

2 (Applause.)

3 FACILITATOR CAMERON: Okay. Thank you,
4 Ed.

5 Edith Gbur was up next, and she was just
6 here. I don't know if she left. We'll wait. Maybe
7 she'll be back.

8 Is there a Kevin Commons here? Yes?
9 Kevin, did you want to talk?

10 MR. COMMONS: No.

11 FACILITATOR CAMERON: Okay. Thank you,
12 Kevin.

13 Gina Guerrazzi? And, Gina -- no. All
14 right.

15 How about Jeff, Jeff Munyan?

16 MR. MUNYAN: No.

17 FACILITATOR CAMERON: All right. Oh, here
18 comes Edith. Edith? No, she doesn't? Tonight?
19 Okay. Edith will be back tonight.

20 Isadore Rubin, did you want to comment to
21 us? Why don't you come up?

22 MR. RUBIN: Good afternoon. My name is
23 Rubin. I live in Pine Beach.

24 I asked the question before about the
25 cooling towers. And I received an answer that puzzles

1 me. So I want to go back to that again.

2 Recently I was asked to be chaperone at a
3 high school dance. And I was asked by one of the
4 young ladies to dance. And I said, "Well, maybe if
5 you play a waltz, I'll do a dance but not this hard
6 rock."

7 I don't understand this thing with the
8 cooling tower. The most efficient thing is a natural
9 draft tower. I don't know why AmerGen asked the NRC
10 to put in the mechanical draft, but why didn't the NRC
11 say, "No. These are more efficient. Let's use them"?
12 And what is the impact from them? Would they be less?

13 I also don't understand something else.
14 At the present time, to get the plant to work, they
15 have to have cooling water in the condensers. That's
16 what they take out of the bay and put back in. In
17 order to do that, the water comes out of the reactor
18 at a temperature that they can't return directly to
19 the bay.

20 So they have a lot more water that they
21 pump around and they do the loop and they put them
22 together. They drop the temperature and put it back
23 in the bay. If you have a cooling tower, you won't
24 need to do any of that. And the only thing you've got
25 to make up is essentially the evaporation.

1 I quickly looked at a report. It says
2 they would reduce the water usage 70 percent. It
3 seemed to me they have reduced it 90 percent. I
4 [don't] understand where the 70 percent number comes
5 from. So I think I've been given answers that really
6 are not quite correct.

7 As far as the safety of the thing is
8 concerned -- and there have been these two gentlemen
9 just speak about their interest in maintaining the
10 thing safe -- as a layman, I don't know where the
11 escaped gases are vented from the existing system.

12 I assume that they go up that tall stack
13 that's there. So I have had that question before, and
14 I still have that question. Are there monitors at the
15 top of the stack? Are there records for telling us
16 what is coming out?

17 I think that would be useful for the
18 average citizen and it be important for the NRC to
19 consider that as positive proof of what they're doing
20 or where the plant is going. And, therefore, I feel
21 that those questions should be answered before the NRC
22 says, "Okay. You can go ahead for another 20 years."

23 Thank you.

24 FACILITATOR CAMERON: Okay. Thank you.

25 Mike Masnik and Kirk will talk to you

1 about that issue after we're done with the meeting.
2 And I know that we're going to go to Barbara Bailine
3 with some information hopefully or perhaps about the
4 tritium and also about the court case in California.

5 That's the last speaker that we had signed
6 up for this afternoon's session. And you know we are
7 going to be back here tonight to open house at 6:00
8 and the meeting starting at 7:00. So please feel free
9 to join us at that time.

10 I'm going to ask Frank Gillespie, who is
11 the Division Director of License Renewal -- all
12 license renewals come under Frank's watch -- to close
13 the meeting out for us.

14 Frank, do you want to use this or do you
15 want to get up there, whatever you prefer?

16 VI. CLOSING/AVAILABILITY OF TRANSCRIPTS, ETC.

17 MR. GILLESPIE: I would like to thank
18 everyone for coming. And I would like to say don't
19 take our lack of response to your questions as meaning
20 that nothing has been done.

21 We're here to hear you. We didn't come
22 here to lecture you. And so that is an important
23 aspect. Several of the speakers challenged us to
24 answer questions right now. And the questions, each
25 one, will be addressed in our final environmental

1 impact statement. There's a complete table in the
2 back which takes each of the questions. They go
3 through the transcript and address each of the
4 questions.

5 Some of the other questions I would really
6 invite you to our Web page. We actually had two
7 conflicting speakers. We had the person who was
8 talking about all of the emissions and emissions data
9 that they found on the NRC Web page to document what
10 was going up the stack at Oyster Creek.

11 And then we had the last speaker saying,
12 Do you monitor the stacks at Oyster Creek? Well, yes.
13 And Mike is going to talk to them about that. We do
14 monitor. All the releases are monitored, measured,
15 and reported. And all that information is, in fact,
16 on our Web page.

17 A couple of other issues. The Ninth
18 Circuit Court was brought up in California. That's
19 under litigation. The government itself is trying to
20 understand what's going on there and what we were
21 asked to do.

22 I would suggest that if you are interested
23 in that, to get hold of the actual document itself in
24 the finding because it is not necessarily worded, as
25 might be characterized by people. It's written by

1 lawyers for lawyers. It's very exact in its wording.
2 And it suggests some things in there in NEPA space and
3 SAMA space and not in requirement space relative to
4 security.

5 So if someone is really interested, you
6 really need to get it. It is not a long document to
7 read. And it's actually very easy to read. I would
8 not want anyone from the NRC staff trying to actually
9 stand up and interpret it. So that's why I would
10 refer you to the case document itself. It is very
11 informative. And we're trying to understand it
12 ourselves and trying to understand what our actions in
13 the future might be.

14 So, with that, I do thank you for all the
15 comments. And anyone who would like to come back
16 tonight, come back and join us again tonight. And I
17 don't think we have anything else.

18 Again, thank you. We were here to listen
19 to you. And so you will see responses to everything
20 in our final environmental impact statement.

21 And, with that, I would like to close the
22 meeting.

23 (Whereupon, the foregoing matter was
24 concluded at 4:02 p.m.)

25