

# **Official Transcript of Proceedings**

## **NUCLEAR REGULATORY COMMISSION**

**Title:** Environmental Impact Statement for Turkey  
Point License Renewal: Public Hearing

**Docket Number:** 50-250 and 50-251

**Location:** Homestead, Florida

**Date:** Tuesday, July 17, 2001

**Work Order No.:** NRC-324

**Pages 1-154**

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING: AFTERNOON SESSION

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DRAFT ENVIRONMENTAL IMPACT

STATEMENT FOR TURKEY POINT LICENSE RENEWAL

+ + + + +

TUESDAY

JULY 17, 2001

+ + + + +

HOMESTEAD, FLORIDA

+ + + + +

The Public Meeting convened at the Homestead  
YMCA, Harris Field Complex, 1034 N.E. 8th Street,  
Homestead, Florida, at 1:30 p.m., Chip Cameron, NRC  
Facilitator.

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

(1:30 p.m.)

1  
2  
3 MR. CAMERON: I welcome all of you to come  
4 in at this point and have a seat, and we're going to  
5 get started with our meeting very shortly here.

6 Good afternoon, everyone. My name is Chip  
7 Cameron. I'm the Special Counsel for Public Liaison  
8 within the Office of General Counsel at the Nuclear  
9 Regulatory Commission. And I'd like to welcome all of  
10 you to the NRC's public meeting on the Draft  
11 Environmental Impact Statement that the NRC has  
12 prepared on the license renewal applications for  
13 Turkey Point Nuclear Plant Units 3 and 4. And it's my  
14 pleasure to serve as your facilitator for today's  
15 meeting.

16 And I'd like to cover three items briefly  
17 for you before we get into the substance of today's  
18 discussion.

19 First I'd like to talk about objectives of  
20 the meeting. Secondly I'd like to talk about the  
21 format for today's meeting and the ground rules. And  
22 third, I'd just like to go over the agenda for today's  
23 meeting so you know what to expect.

24 In terms of objectives, the NRC is here  
25 today to provide you with information and to answer

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1 your questions on the NRC's preliminary findings on  
2 the environmental impacts of license renewals at  
3 Turkey Point. And I want to emphasize, as other NRC  
4 presenters will emphasize, that these are preliminary  
5 findings on the environmental impacts of renewing the  
6 licenses for Units 3 and 4 of Turkey Point.

7 And this leads to the second objective  
8 today. The NRC wants to listen to your comments on  
9 the findings in the Draft Environmental Impact  
10 Statement, the ultimate goal being that the NRC will  
11 consider and evaluate your comments in developing the  
12 Final Environmental Impact Statement. And some of our  
13 speakers in a few minutes will talk about the role of  
14 the Environmental Impact Statement in making license  
15 renewal decisions.

16 Now we are taking written comments on the  
17 Draft Environmental Impact Statement and there will be  
18 more about the details of that later. But we wanted  
19 to be here today to talk to you personally about the  
20 findings in the Draft Environmental Impact Statement.  
21 The information you hear today from the NRC and  
22 perhaps comments that are made by others in the  
23 community and in the audience will help you prepare  
24 written comments, if you want to file written  
25 comments. And I do want to emphasize that anything

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1 you say here today will be treated the same as a  
2 written comment in the terms of the NRC evaluation of  
3 comments on the Draft Environmental Impact Statement.

4 The second item I want to cover with you  
5 today is the format and ground rules for today's  
6 meeting. Basically, the meeting is going to be  
7 divided into two major components.

8 The first component is going to be a  
9 series of brief NRC presentations on the process for  
10 license renewal and on the findings in the Draft  
11 Environmental Impact Statement. And during that  
12 segment we want to go to you to answer any questions  
13 you might have on the presentation. So we want to be  
14 in an interactive mode with you on that one.

15 The second component of today's meeting is  
16 to have all of you, any of you who desire to do so,  
17 and we have a list of people who have already signed  
18 up, to come up to make a -- give us some more formal  
19 comments on the findings in the Draft Environmental  
20 Impact Statement. And during that particular segment  
21 the NRC staff is going to be listening to what you are  
22 saying and we'll have one person after the other come  
23 up and give us some comments.

24 In terms of ground rules during the  
25 question and answer and the formal comment period, I

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1 would just ask you to give us your name and  
2 affiliation, if appropriate. We are keeping a  
3 transcript of today's meeting. Claudette Frost is our  
4 stenographer today. And that will be publicly  
5 available for people to review. It will allow us to  
6 keep track of what was said so that we can properly  
7 evaluate those comments. So when we do have questions  
8 and answers during that segment of the program I'll  
9 come out to you with a talking stick, or if you would  
10 like you're welcome to use that microphone in the  
11 back.

12 Second ground rule tonight, or today, is  
13 that I would just ask that one person speak at a time,  
14 and the purpose of that is to help us get a clean  
15 transcript, but also to make sure that we give our  
16 full attention to whoever has the floor at the time.

17 And we do have a slight buzz here that  
18 we'll try to figure out how to eliminate.

19 The last ground rule I want to mention is  
20 just one that has to do with time, and I want to make  
21 sure that everybody who wants to do so gets an  
22 opportunity to participate today. And during the  
23 question and answer session I may have to ask you to  
24 summarize or we may have to go on to someone else to  
25 give everybody a chance to talk.

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1           During the public comment portion, the  
2 second phase of the meeting, we have about twenty-  
3 three people, okay, who want to talk. So what I'm  
4 going to ask you to do, and I think that this will get  
5 us out of here on time, but to keep your comments down  
6 to approximately five minutes. I mean we have a  
7 little bit of flexibility there, but in order to hear  
8 from everybody it's going to have to be five minutes.  
9 So plan accordingly on that.

10           We do have the capability to take any  
11 written comments which you have and make sure they're  
12 attached to the transcript. So if you do have to cut  
13 back and you have written comments, then hopefully  
14 that will take care of that.

15           Okay, third item is agenda for today's  
16 meeting. And basically after I'm done, we're going to  
17 go to Chris Grimes from the NRC staff who's going to  
18 give you an overview of the license renewal process.  
19 We're here to talk about the Draft Environmental  
20 Impact Statement, but that's only one of the important  
21 parts of the total license renewal effort, and Chris  
22 is going to give us an overview on the license renewal  
23 process. And then we're going to go to Jim Wilson  
24 from the NRC staff, and he's going to talk about the  
25 environmental segment of license renewal. We'll then

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1 go out to all of you for a brief question and answer  
2 on process. Then we're going to get to the substance  
3 of the Draft Environmental Impact Statement and  
4 Charlie Brandt from Pacific Northwest National Lab is  
5 going to present the findings in the Draft  
6 Environmental Impact Statement. We're also going to  
7 have a presentation by Mike Snodderly of the NRC staff  
8 on severe accident issues. Then we'll close briefly  
9 with Jim Wilson again on the overall preliminary  
10 conclusion in the Draft Environmental Impact  
11 Statement, go to you for questions about those  
12 substantive findings and then we'll start the public  
13 comment period.

14 I do want to introduce, give you some  
15 background on our speakers today so you'll have an  
16 idea about their expertise.

17 Chris Grimes, who's going to do the  
18 overview for us, has been with the NRC and before that  
19 the Atomic Energy Commission, the AEC, since 1973. He  
20 was a reactor containment systems analyst. He worked  
21 on reactor licensing cases such as Diablo Canyon and  
22 Comanche Peak. He was the chief, the manager, of the  
23 Technical Specifications Branch at the NRC and now  
24 he's the branch chief of the License Renewal and  
25 Standardization Branch. And it's important to note

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1 that that's where all license renewal activities come  
2 together in terms of a staff as opposed to the  
3 Commission itself, a staff recommendation on a license  
4 renewal application. Environmental issues, safety  
5 issues and inspection findings come together in Chris'  
6 branch and he's going to do that overview for us.

7 Jim Wilson is a biologist and zoologist.  
8 He is the project manager on the environmental  
9 evaluation of the Turkey Point license renewal  
10 application. And the branch that he worked in at the  
11 Commission is the Generic Issues, Environmental,  
12 Financial and Rule Making Branch. That's where all  
13 the environmental evaluations for license renewal  
14 takes place at the Commission.

15 Now we're also going to go to Charlie  
16 Brandt for the main findings. He's the head of the  
17 Ecology Group at the Pacific Northwest National Lab  
18 and has a Ph.D. in Zoology from Duke University. Did  
19 I get that right? Okay, Charlie, thank you.

20 Then we're going to go to Mike Snodderly  
21 from the NRC staff. He's a reactor systems engineer  
22 in the Probabilistic Safety Assessment Branch. He has  
23 a Nuclear Engineering Degree from the University of  
24 Maryland. And before he joined the Commission he  
25 worked at the Calvert Cliffs Nuclear Reactor, and now

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1 he's with the regulators, the Nuclear Regulatory  
2 Commission.

3 Thank you for taking the time to be here  
4 today. We really appreciate that, and hopefully  
5 you'll learn a lot today and we'll learn a lot from  
6 you and as a facilitator I'll try to keep us on  
7 schedule and make sure that we have an effective  
8 meeting. And right now I'll turn it over to Chris  
9 Grimes.

10 MR. GRIMES: Thank you, Chip.

11 As Chip mentioned, the purpose of the  
12 meeting today is to describe the preliminary results  
13 of the Environmental Impact Assessment for the Turkey  
14 Point license renewal. And Chip also mentioned that  
15 our primary interest today is to hear your comments,  
16 to get feedback from the public and all segments of  
17 the stakeholders involved in this activity.

18 The purpose of the meeting today is to  
19 describe these preliminary results as they relate to  
20 a license renewal application that Florida Power and  
21 Light submitted to renew the operating licenses for  
22 the two reactors at the Turkey Point Plant.

23 The Atomic Energy Act provides for a forty  
24 year term for power reactor licenses. Florida Power  
25 and Light has requested that these licenses for Units

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1 3 and 4 at Turkey Point be extended for twenty years  
2 as provided by the license renewal process in the  
3 regulations, Part 54 to Title 10 of the Code of  
4 Federal Regulations, and we'll refer to that  
5 throughout the day as 10 CFR for short.

6 The extended licenses would expire on July  
7 19, 2032 and April 10, 2033, respectively.

8 We held an environmental scoping meeting  
9 in Homestead on December the 6th of last year. During  
10 that meeting we described the statutory requirements  
11 for this action, the purpose of the review and the  
12 process that we go through. Today we will summarize  
13 that process. We want to concentrate on the  
14 preliminary results of the environmental impact  
15 review. We want to point out issues that were raised  
16 during the scoping process and provide you with the  
17 opportunity to give us your views on these preliminary  
18 results and to ask questions about what you might hear  
19 today.

20 The NRC established the regulatory  
21 requirements for license renewal in Part 54, Title 10  
22 to provide for the license renewal process. The Rule  
23 provides that the basis upon which a plant was  
24 originally licensed remains valid after forty years  
25 and can be carried over into a twenty year period of

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1 extended operation. The Rule requires that an  
2 applicant address plant safety by demonstrating that  
3 the applicable aging effects will be adequately  
4 managed for a defined scope of passive, long live  
5 system structures and components, and evaluating  
6 certain time dependent design analyses.

7 The Rule also requires that the  
8 application include an environmental report with  
9 information that the NRC can draw on to develop a  
10 plant specific supplement to a Generic Environmental  
11 Impact Statement that was codified in 10 CFR, Part 51.

12 In developing the requirements for renewal  
13 the NRC determines that aging for active components is  
14 adequately managed by existing maintenance and  
15 surveillance programs, and other aspects of the  
16 existing license requirements can continue through the  
17 license extension period.

18 Following my introduction, Jim Wilson, the  
19 NRC project manager for the Turkey Point Environmental  
20 Review, will describe the environmental review process  
21 in more detail, and the National Environmental Policy  
22 Act, or NEPA, requirements, and he will also introduce  
23 the balance of the presentation as Chip described.

24 I would also like to introduce the NRC  
25 project manager for the Turkey Point Safety Review,

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1 Raj Auluck. Raj Auluck is the senior project manager  
2 responsible for the safety review process. And Steve  
3 Koenick. Steve assists him in the safety review  
4 process. They are responsible for coordinating the  
5 evaluation of the plant aging management programs and  
6 the NRC inspections to verify the basis for the safety  
7 evaluation and the independent review of the safety  
8 evaluation of the NRC staff's conclusions by an  
9 Advisory Committee on Reactor Safeguards.

10 Florida Power and Light submitted its  
11 license renewal application for Turkey Point in  
12 September of 2000. This figure illustrates the  
13 opportunity for public involvement in the three  
14 parallel activities; the safety review, the  
15 environmental review and the inspection program. Thus  
16 far the NRC has visited the site and held public  
17 scoping meetings in December, requested additional  
18 information related to the plant aging affects in  
19 support of the preparation of our safety evaluation  
20 report that will be issued in August, 2001,  
21 identifying any open items that must be resolved  
22 before a Commission decision.

23 The NRC's Region II staff has conducted an  
24 inspection of the process for scoping plant systems  
25 structures and components in May and held an

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1 inspection on June the 8th. On June 12, 2001 the NRC  
2 issued a Draft Supplement Environmental Impact  
3 Statement that we will describe today.

4 In the future an inspection of the aging  
5 management programs and the Advisory Committee on  
6 Reactor Safeguards subcommittee meeting on the license  
7 renewal safety issues are planned for September of  
8 this year. The ACRS performs an independent review of  
9 the renewal application and the NRC staff safety  
10 evaluation report and they report their findings  
11 directly to the Commission. the ACRS also holds  
12 public meetings which are transcribed. Oral and  
13 written statements can be provided during ACRS  
14 meetings in accordance with the instructions described  
15 in the notice for those meetings in the Federal  
16 Register.

17 The NRC's licensing process includes a  
18 formal process for public involvement through hearings  
19 conducted by a panel of Administrative Law Judges who  
20 are called the Atomic Safety and Licensing Board, or  
21 the ASLB. That process consists of a petition to hold  
22 hearings on particular issues to be litigated by the  
23 Board.

24 The ASLB concluded that petitions to  
25 intervene on the Turkey Point license renewal

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1 application that were submitted by Mark Oncavage and  
2 Joette Lorion failed to identify at least one  
3 admissible contention. Mr. Oncavage has appealed that  
4 decision to the Commission. Whether a formal  
5 adjudicatory hearing is held on the Turkey Point  
6 license renewal application will depend on the outcome  
7 of that appeal.

8 At the end of the process, the final  
9 safety evaluation report, the final Supplement to the  
10 Environmental Impact Statement, the results of the  
11 inspection, the ACRS recommendation, and the ASLB  
12 decision, if a hearing is held, are submitted to the  
13 Commission with a staff recommendation. Each  
14 Commissioners will vote on the proposed action and  
15 their decision will be formally sent to the NRC staff  
16 for whatever action they conclude is appropriate for  
17 the renewal application. The individual Commissioner  
18 votes and their instructions for the NRC staff also  
19 become public record.

20 Throughout this process interested members  
21 of the public who are concerned about nuclear safety  
22 issues can raise those issues informally during  
23 various public meetings that are held by the NRC  
24 associated with the Turkey Point license renewal  
25 application. Meetings on particular technical issues

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1 are usually held at the NRC's Headquarters in  
2 Rockville, Maryland. However, some technical meetings  
3 and meetings to summarize the results of the NRC's  
4 inspection findings will be held near the plant site  
5 in a place that is accessible to the public.

6 Turkey Point license renewal application,  
7 the safety evaluation report, meeting summaries and  
8 other related correspondence are or will be available  
9 for public review at the NRC's Public Document Room in  
10 Rockville or on the NRC's website. Copies of the  
11 applications, the reports and significant  
12 correspondence are also available to local residents  
13 at the Homestead Branch Library just across the street  
14 from the YMCA.

15 That is a brief overview of the renewal  
16 process. In the interest of time I'm not going to go  
17 into any more detail on the process, but I would  
18 suggest that Mr. Auluck, Mr. Koenick and Mr. Wilson  
19 and I will be available after the meeting if you have  
20 any particular questions about the process.

21 At this point, Chip, would you like to  
22 introduce Jim?

23 MR. CAMERON: Yes, let's have Jim Wilson  
24 come up, and I gave you some of Jim's background in  
25 terms of experience and just to remind you, that he is

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1 the environmental project manager for the license  
2 renewal applications on Turkey Point. And Jim's going  
3 to talk process and then he'll go out and check in  
4 with all of you and see if there is any questions on  
5 process that we can answer for you.

6 MR. WILSON: My name is Jim Wilson. I'm  
7 the environmental project manager for the Turkey Point  
8 license renewal project. I'm responsible for  
9 coordinating the efforts of the NRC staff and our  
10 contractors from the National Labs to conduct and  
11 document the environmental review associated with  
12 Florida Power and Light Company's application for  
13 license renewal at Turkey Point.

14 NEPA, the National Environmental Policy  
15 Act, was enacted in 1969. It requires all Federal  
16 agencies to use a systematic approach to consider  
17 environmental impacts during certain decision making  
18 proceedings regarding major Federal actions. NEPA  
19 requires that we examine the environmental impacts of  
20 the proposed action and consider mitigation measures,  
21 which are measures that can be accomplished to  
22 decrease environmental impact when impacts are severe.

23 NEPA requires that we consider  
24 alternatives to the proposed action and that we  
25 evaluate the impacts of those alternatives.

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1                   Finally, NEPA requires that we disclose  
2 all of this information and that we invite public  
3 participation to evaluate it.

4                   The NRC has determined that it will  
5 prepare an Environmental Impact Statement associated  
6 with the renewal of an operating license for an  
7 additional twenty years. Therefore, following the  
8 process required by NEPA, we have prepared a Draft  
9 Environmental Impact Statement that describes the  
10 environmental affects associated with operations at  
11 the Turkey Point units for an additional twenty years.  
12 That Environmental Impact Statement was issued last  
13 month and the meetings today are to receive your  
14 comments on that document.

15                   This slide describes the objective of our  
16 environmental review. Simply put, we're trying to  
17 determine whether the renewal of the Turkey Point  
18 licenses is acceptable from an environmental  
19 standpoint. If license renewal is a viable option,  
20 whether or not that option is exercised, whether or  
21 not the plant operates for an additional twenty years,  
22 would be determined by others, such as Florida Power  
23 and Light and State regulatory agencies and would  
24 depend in large measure on the outcome of the safety  
25 review.

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1           This slide shows in a little more detail  
2 the environmental review process associated with  
3 license renewal for Turkey Point. We received the  
4 application last September. The Notice of Intent was  
5 published in the Federal Register in October, and it  
6 informed the public that we're going to prepare an  
7 Environmental Impact Statement and we invited the  
8 public to provide comments on the scope of the  
9 environmental review.

10           In December during the scoping period, we  
11 had two public meetings here in Homestead and we  
12 received public comments on the scope of issues that  
13 should be included in the Environmental Impact  
14 Statement associated with Turkey Point license  
15 renewal.

16           Also in December, we went to the Turkey  
17 Point site with a combined team of NRC staff and  
18 personnel from 3 National Laboratories with  
19 backgrounds in specific technical and scientific  
20 disciplines that are required to perform this  
21 environmental review. We familiarized ourselves with  
22 the site, met with staff from Florida Power and Light  
23 Company to discuss the information that we received in  
24 support of license renewal, and we examined their  
25 evaluation process.

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1           In addition, we contacted Federal, State  
2           and local officials, as well as local service  
3           agencies, to obtain information on the area and the  
4           Turkey Point plant.

5           At the close of the scoping meeting for  
6           the scoping period we gathered up and considered all  
7           of the comments that we received from the public and  
8           from State and Federal agencies. Many of these  
9           comments contributed significantly to the document  
10          that we're here to discuss today.

11          At the end of January we issued a request  
12          for additional information to insure that any  
13          information that we relied on had been -- that had not  
14          been included in the original application, to make  
15          sure it was submitted on the docket.

16          A month ago, in June, we issued the Draft  
17          Environmental Impact Statement for public comment.  
18          This is Supplement 5 of the Generic Environmental  
19          Impact Statement, because we rely on the findings of  
20          the Generic Environmental Impact Statement for part of  
21          our conclusions. The report is Draft, not because it  
22          is incomplete, but rather because we are in an  
23          intermediate stage in the decision making process.  
24          We're here in the middle of a public comment period to  
25          allow you and other members of the public to look at

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1 the results and provide us with comments you may have  
2 on the report.

3 After we gather these comments and  
4 evaluate them, we may decide to change portions of the  
5 Environmental Impact Statement based on those  
6 comments. The NRC will then issue a Final  
7 Environmental Impact Statement for the Turkey Point  
8 license renewal project.

9 Shall I introduce Dr. Brandt, or would you  
10 like to?

11 MR. CAMERON: First of all, I think that  
12 we should check with the audience to see if all of the  
13 information on the process for license renewal was  
14 clear.

15 Does anybody have any questions on the  
16 license renewal process at this point before we go on  
17 to the substance of the findings in the Draft  
18 Environmental Impact Statement?

19 Yes, ma'am, and if you could just give us  
20 your name and affiliation, please.

21 MS. JACOBS: Diane Jacobs, Sierra Club.

22 I'd like to know why the application is  
23 filed so far in advance of the expiration of the  
24 original licenses?

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1 MR. CAMERON: Chris, do you want to help  
2 us with that one?

3 MR. GRIMES: Typically, large generating  
4 capacity takes about ten years to plan and project.  
5 The replacement power for a plant about the size of  
6 Turkey Point would need to be in the planning stages  
7 about this time in order for Florida Power and Light  
8 to reasonably be able to replace that capacity in the  
9 event it concluded to close the plant upon its  
10 expiration.

11 So we're finding that all of the plants  
12 that these licenses expire in the 2010 to 2015 range  
13 are the ones that are currently pursuing license  
14 renewal in order to establish what the requirements  
15 for plant operations beyond that term would need to  
16 be.

17 MR. CAMERON: Thank you. Thank you very  
18 much.

19 Is there another question on process?

20 MS. RUDISCH: My name is Mary Rudisch,  
21 Sierra Club.

22 After this Draft Supplement is reviewed  
23 and if the NRC decides that amendments need to be made  
24 to the Environmental Impact Statement, how do you go  
25 about that process?

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1 MR. CAMERON: Okay, Jim, do you want to  
2 handle that one, and is it clear what Mary is asking  
3 us?

4 MR. WILSON: I'm hoping if I get a little  
5 bit far afield you'll recalibrate me and let me know.

6 We'll be collecting comments provided at  
7 this public meeting off the transcript. We'll also be  
8 looking at comments that we receive either in writing  
9 or in E-mail at a special address.. We'll be giving  
10 you a sheet to show you how to provide those comments.

11 At the end of the scoping period, that's  
12 some time after September 6th, at the end of the  
13 comment period, I'm sorry, we will look at every  
14 comment and try and group like comments and then  
15 disposition them. They will appear on an Appendix to  
16 the Environmental Impact Statement that we'll issue  
17 hopefully some time in January, before the end of  
18 January. We'll try and characterize each comment and  
19 restate it, and if necessary, we'll change the text in  
20 the Environmental Impact Statement to accommodate the  
21 comment and there will be a kind of a road map that  
22 tracks the comment to the change in the document that  
23 we made.

24 MR. CAMERON: Mary, does that answer your  
25 question?

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1 MS. RUDISCH: Can I ask a question about  
2 the safety review process, which is different from the  
3 environmental review process?

4 Let me think for a second how I want to  
5 say this.

6 After the review of the Draft Supplement  
7 for the safety review process of the two Turkey Point  
8 nuclear reactors, has that ever prompted the NRC to go  
9 back and reinspect the plant in the past? Has that  
10 ever been your practice, to go back and reinspect the  
11 plant?

12 MR. GRIMES: Let me say -- let me answer  
13 the question in this way.

14 We have resident inspectors that live and  
15 work in these plants and follow them on a routine  
16 basis. The trigger for inspection activities is  
17 normally an event or an inspection finding or a  
18 maintenance finding. In some cases we have had  
19 questions arise by the content of applications. The  
20 larger population of applications that we get are  
21 license amendments for the existing licenses. We've  
22 only completed three license renewal reviews. So I  
23 can't say we have a lot of experience that we can draw  
24 on in terms of issues that were triggered by the  
25 content of the application.

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1           By and large, our inspection activities  
2 are derived from plant operating experience, things  
3 that we find in the plant, as opposed to materials  
4 that's presented in applications.

5           Does that answer your question?

6           MS. RUDISCH: I understand that the  
7 process is ongoing and I understand that the NRC has  
8 resident inspectors that live here in Homestead,  
9 Florida with their families, but I also understand  
10 that they're rotated out every four years too.

11           The question is, I guess what I wanted to  
12 ask was, based on public comment to the -- based on  
13 public comment, has the NRC ever gone back and  
14 reinspected plants, based on public comment?

15           MR. CAMERON: And this could be apart from  
16 license renewal, right?

17           MR. GRIMES: And the answer is, yes. We  
18 have had -- there are circumstances where public  
19 comments have triggered questions in our own minds and  
20 we've said well, we don't have any record to draw on  
21 and we don't have any recent experience, so that's a  
22 good question, let's go find out what the answer is.  
23 And we conduct an inspection.

24           If it's a fairly simple thing we call a  
25 resident and say, "Would you please go look?"

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1           In other cases we've augmented the plans  
2 for the team inspections we conduct for the license  
3 renewal process. Team inspections have a flexible  
4 perk to them. And so we've included specifics in  
5 there that were triggered by comments that were raised  
6 during the scoping process for the environmental  
7 review.

8           MR. CAMERON: Okay. Thanks, Chris.

9           Let's go to Charlie Brandt now, and he's  
10 going to tell us about the findings on environmental  
11 impacts in the Draft Environmental Impact Statement.

12           Charlie?

13           MR. BRANDT: We're going to try to do this  
14 in a fashion where I can talk to the slides, and  
15 hopefully you all can hear me at the same time.

16           Like Chip said, my job is to describe in  
17 brief the findings of our review regarding the  
18 environmental impact of the licensing of Turkey Point  
19 Units 3 and 4. But before we do that I thought it  
20 would be valuable to identify or at least describe for  
21 you what goes into that review process.

22           The first -- there are two essentially  
23 guiding documents, if you will, the first of which is  
24 the Generic Environmental Impact Statement, or what's  
25 commonly referred to as the GEIS, and you'll see that

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1 in the Supplement EIS that I'm sure you've all read or  
2 will be reading and will be referenced multiple times  
3 the rest of this afternoon session.

4 What that consists of is an Environmental  
5 Impact Assessment that was published in 1996 by the  
6 NRC, that basically identifies -- starts out with a  
7 catalogue of all the environmental issues pertinent to  
8 relicensing a nuclear power plant. Some of those  
9 issues apply to certain types of plants; for example,  
10 those with cooling towers. Others apply to all  
11 plants. These kinds of issues would include things  
12 such as radiological health. Of those environmental  
13 issues, the Generic Environmental Impact Statement  
14 provided two types of categories in which these were  
15 grouped.

16 The first is called Category I. These  
17 consist of generic issues. And again, that term is a  
18 little confusing since we're talking about a Generic  
19 Environmental Impact Statement. But a generic issue  
20 is that one that applies to all plants, or at least  
21 all plants of a particular type; for example, those  
22 with cooling towers, and the level of impact is the  
23 same at all plants. An example of this type of  
24 Category I issue or generic issue would be, for  
25 example, bird collisions with cooling towers. Again

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1 that only applies to plants with cooling towers. Bird  
2 collisions and electrocution with transmission lines  
3 applies to all of the plants.

4 The second type of issue is called a  
5 Category II issues. Those are issues, environmental  
6 issues that require site specific information to be  
7 evaluated, the expectation being that an analysis done  
8 at the time identified that impacts vary amongst the  
9 plant and no single level of impact can be applied to  
10 any particular plant.

11 What our analysis consisted of, first was  
12 to look at the generic issues that apply to Turkey  
13 Point based on its design. What we do and what's  
14 required under the Generic Environmental Impact  
15 Statement is to identify whether there are new and  
16 significant information, where there is new and  
17 significant information, relative to those issues.  
18 New information consists of information that was not  
19 considered at the time that the GEIS was prepared.  
20 Significant information is information that produces  
21 a different conclusion than what was produced in the  
22 GEIS.

23 The public scoping process is a key  
24 component of that analysis, in that part of the public  
25 scoping process generates information that the NRC or

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1 the applicant may not have been aware of at the time  
2 of the GEIS. And that actually happened in this case.

3 In all the cases we do perform that  
4 evaluation regarding new and significant. If we  
5 determine that the information is not significant then  
6 we adopt the conclusions of impact that were presented  
7 in the Generic Environmental Impact Statement.

8 If the information was potentially  
9 significant, we notify the Commission and conduct a  
10 full evaluation.

11 The other aspect of the scoping process  
12 that's of key importance is the scoping process  
13 identifies or has the opportunity to identify issues  
14 that were not addressed at all in the Generic  
15 Environmental Impact Statement. Like I mentioned, the  
16 GEIS was intended to be a catalogue of all the issues,  
17 but no catalogue is complete, and part of the function  
18 of the scoping process is to identify what other  
19 issues are out there that have not been evaluated in  
20 the Generic Environmental Impact Statement.

21 All of this is captured in the Scoping  
22 Summary Report. Our analysis does a full scale  
23 evaluation on site specific issues that are considered  
24 Category II. We evaluate potentially new and

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1 significant information and otherwise consider the  
2 conclusions that were presented in the GEIS.

3 Our process relies essentially on three  
4 different types of information or scale, if you will.  
5 One of which is a variety of data sources. Those data  
6 sources include the environmental report that the  
7 applicant submits along with its application for a  
8 renewed license. They include site visits. They  
9 include requests for additional information, open  
10 literature reports or NRC reports, for example, and we  
11 also conduct interviews with local, State and Federal  
12 agencies.

13 We also rely on independent analysis.  
14 Independent meaning agencies that have nothing to do  
15 with either the applicant or the NRC. These include,  
16 for example, consultations with the National Marine  
17 Fishery Service and the U.S. Fish and Wildlife Service  
18 regarding present endangered species, the Florida  
19 Coastal Commission that's actually administered by the  
20 Florida Department of Community Affairs with regard to  
21 coastal zone management issues, and the State  
22 discharge permitting agencies, for example.

23 In the case of Turkey Point we also  
24 consulted with the U.S. Army Corps of Engineers, and

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1 again that was based on a comment that was raised  
2 during the scoping period.

3 And thirdly, we rely on putting together  
4 an evaluation team with broad expertise. As Chip  
5 mentioned, my degree is in zoology, and I'm not going  
6 to be the one who's going to be evaluating  
7 radiological impacts on human health. We have  
8 individuals who that is their education and their  
9 practice and they do that sort of work.

10 An impact is quantified using three  
11 levels, small, medium and large, small, moderate and  
12 large. These levels are set by the Council of  
13 Environmental Quality. The interpretation that NRC  
14 has used has been consistent for all of the license  
15 renewal supplements, as well as the Generic  
16 Environmental Impact Statement. You can read them up  
17 there.

18 Small, the effects are either not  
19 detectable or so small it's not to de-stabilize  
20 important aspects of the resource.

21 Large, is the effect is clearly noticeable  
22 and sufficiently large to de-stabilize important  
23 attributes of the resource.

24 Again, these have been used consistently  
25 throughout the process and we are now on Supplement 5.

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1           Now, with regard to the specific impact  
2 areas. The first impact area is with regard to the  
3 cooling system. Because Turkey Point has a closed  
4 cycle cooling system with no discharges to surface  
5 waters, other than those contained on the site, the  
6 aquatic ecology issues related to entrainment,  
7 impingement and heat shock on fish and shell fish.  
8 The system being closed has no commercially  
9 exploitable fish stocks or sports fish present. The  
10 one fish that is present in the site is small, is  
11 associated with benthic environments and is not prone  
12 to entrainment or impingement.

13           Human health considerations are with  
14 regard to microbiological organisms that might be  
15 present in the cooling system itself. The applicant  
16 conducted a discussion with the Florida Department of  
17 Health with regard to the potential for impacts in  
18 this area to human health and the Florida Department  
19 of Health found that there were minimal health  
20 impacts.

21           Transmission lines, again this applies to  
22 all plants. Turkey Point in specific has 92  
23 kilometers of corridor that cover about 930 hectares.  
24 If you want to translate that into acres, that's about  
25 twenty-one, twenty-two hundred acres. The issues are

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1 related to electric shock from electromagnetic fields.  
2 This was evaluated with a computer code to determine  
3 whether they complied with standards set by the  
4 National Electric Safety Code, and all induced  
5 currents were found to be below the Code limits.

6 Health effects chronic exposure to  
7 electromagnetic fields remains an open issue. This is  
8 monitored by, among other agencies, the National  
9 Institute of Environmental Health Sciences. Their  
10 latest review identified that there is currently --  
11 health studies do not show that there is a significant  
12 relationship between electromagnetic fields and health  
13 affects, but they do -- they did recommend that this  
14 be brought to and maintained in front of people's  
15 attention. So as far as the Turkey Point impact  
16 assessment goes, this impact is not further  
17 characterized beyond that.

18 Radiological impacts are Category I  
19 issues. By that I mean that according to the Generic  
20 Environmental Impact Statement the impacts are the  
21 same at all plants. However, we know they are of  
22 significant concern to the public at all plants.

23 What was evaluated in the Generic  
24 Environmental Impact Statement was not a sample of the  
25 plants, but included all the plants, it included

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1 Turkey Point Units 3 and 4. The areas evaluated were  
2 radiation exposures to the public and occupational  
3 exposures. At the time of the GEIS, all impacts were  
4 below regulatory limits.

5 Since that time we did do an evaluation on  
6 new and significant information. We specifically  
7 evaluated things like the dose estimates that the  
8 plant produces annually, the annual monitoring data,  
9 including the monitoring data produced by the Florida  
10 Department of Health and radiological release reports,  
11 and those continue to show that radiological doses to  
12 the public are below regulatory standard.

13 A number of issues with regard to  
14 socioeconomics are considered Category II; that is,  
15 they require site specific information because the  
16 impact levels vary between plants.

17 Housing and public utility impacts, Turkey  
18 Point Units 3 and 4 all occur in high population area  
19 with adequate capacity for water supply and sewage  
20 treatment and that sort of thing. All increases that  
21 might be associated with any additional personnel at  
22 the plant can be easily absorbed by the existing  
23 capacity.

24 Off site land use and transportation may  
25 be affected either by effects on tax payments

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1 associated with the plant or employment, changing land  
2 use patterns around the plant. Both of these were  
3 found to be small and within the capacity of the  
4 existing system.

5 The presence of -- no known historic or  
6 archeological resources have been found on the site.  
7 Discussions with the State Historic Preservation  
8 officer also identified no archeological sites present  
9 at Turkey Point Plant.

10 Ground disturbances within the  
11 transmission corridors will be preceded by on the  
12 ground surveys to insure that any artifacts that may  
13 be present are documented and dealt with accordingly.  
14 Impacts in that area are considered to be small.

15 Environmental justice is an executive  
16 order requiring that Federal actions should not unduly  
17 affect minority or low income populations. We did  
18 analysis of the distribution of minority and low  
19 income populations in the Turkey Point vicinity and  
20 identified that there are no disproportionate impacts  
21 occurring to those groups.

22 Impacts on ground use, ground water use  
23 and quality is next area of consideration. Turkey  
24 Point does not withdraw from the aquifer directly but  
25 receives approximately one hundred gallons a minute

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1 from the Newton Treatment Plant which does pull from  
2 the Biscayne aquifer. This is, as you can imagine, a  
3 fairly small amount withdrawal from the plant and well  
4 within the plant's capacity. However, operations do  
5 not contribute to salt water intrusion into the site.  
6 The ground water flow is out towards Biscayne Bay  
7 during the majority of the year, and during the rest  
8 of the year the interceptor canal keeps brackish water  
9 from -- any brackish water from the cooling canal  
10 system from entering the ground water -- the less  
11 brackish ground water outside of the plant.

12 Threatened and endangered species,  
13 Category II issue. There are a very large number of  
14 Federal and State listed species associated with the  
15 plant site and with the transmission corridors  
16 themselves. There are two agencies, like I mentioned  
17 before, that are responsible for endangered species  
18 compliance. National Marine Fishery Service deals  
19 with most of finned organisms, and on this coast all  
20 of the finned organisms. The marine mammals and the  
21 crocodile are U.S. Fish and Wildlife. The National  
22 Marine Fishery Service determined the continued  
23 operation of Units 3 and 4 would not adversely impact  
24 any species under their purview. The NRC is still in  
25 consultation process with the U.S. Fish and Wildlife

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1 Service regarding the species within their purview.  
2 And the preliminary conclusion from NRC's point of  
3 view is that impacts to these species would be small.

4 The environmental impacts of the uranium  
5 fuel cycle, these issues were all completely addressed  
6 in the Generic Environmental Impact Statement and  
7 found to be small at all plants. There were no new  
8 and significant information issues that were brought  
9 up during the scoping process, Florida Power and  
10 Light's review process, or the NRC's process.

11 The environment impacts of decommissioning  
12 is the same theme that these were addressed in the  
13 Generic Environmental Impact Statement and found to be  
14 small at all plants. The review process that we  
15 conducted and Florida Power and Light's own process  
16 and the scoping process did not identify any new and  
17 significant information in this regard.

18 There were three concerns raised during  
19 the scoping process that were considered to be  
20 potentially new and significant. In general  
21 categorization, these include radiological impacts on  
22 human health, noise and visual impacts on the Biscayne  
23 National Park and the plant's ability to cope with  
24 severe weather.

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1           Taking these in order. Radiological  
2 impacts on human health, there were two primary  
3 issues, one related to strontium 90 concentration, the  
4 other related to cancer incidents rates.

5           Strontium 90 monitoring data and doses to  
6 the public from Turkey Point Units 3 and 4 have been  
7 monitored both by the plant and by the State and have  
8 been found to be within the regulatory limits and  
9 international standard.

10           With regard to strontium concentrations in  
11 teeth themselves, our analysis identified that strontium  
12 90 concentrations are within those expected from the  
13 continued presence of strontium 90 in the soil  
14 throughout the world due to above ground nuclear  
15 weapons testing that actually ceased in the '80's.

16           The National Cancer Institute did note  
17 that there has been an increase in cancer incidents  
18 rates in the last decade of the last century, and they  
19 attribute that entirely to the increase in the  
20 longevity of the population. When the National Cancer  
21 Institute corrects those incidents rates relative to  
22 age, they find that for all cancers the cancer  
23 incidents rates are either stable or declining.

24           The National Cancer Institute was also  
25 requested by Congress to examine cancer mortality

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1 rates around fifty-two nuclear plants, and that  
2 included Turkey Point Units 3 and 4. The National  
3 Cancer Institute did not find any causal link between  
4 death due to leukemia or any other cancer form with  
5 the operations of the plant.

6 The next potentially new and significant  
7 issue was with regard to noise and visual impacts on  
8 the Biscayne National Park. It was obvious from both  
9 the scoping comments that we received and the site  
10 visit that Turkey Point is visible from the park.  
11 However, Turkey Point consists of two fossil plants as  
12 well as two nuclear plants. The fossil plants predate  
13 the nuclear plants. They include a four hundred foot  
14 stack and oil storage tanks as well as an extensive  
15 lighting system around the plants themselves.

16 Based on this evaluation, the NRC reviewed  
17 essentially what would be the incremental impacts of  
18 the nuclear unit on top of what's already present in  
19 the fossil units and identified that those impacts are  
20 small, and also identified that any mitigation that  
21 might be done on the nuclear plants themselves would  
22 not have a detectible impact on noise and the visual  
23 environment from the Biscayne National Park. However,  
24 the NRC recognizes that this is an important issue for  
25 discussion on a site-wide basis, this includes the

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1 fossil plants that the NRC has no jurisdiction over  
2 whatsoever, but has encouraged Florida Power and Light  
3 to meet with the Park Service and basically see if  
4 there's some way to accommodate the Park Service's  
5 concern. But with regard to environmental impacts of  
6 licensing, this is not a departure from the impact  
7 that was identified in the Generic Environmental  
8 Impact Statement.

9 The third area, was plant designed for  
10 severe weather. A particular concern was weather  
11 events more severe than what was considered in the  
12 design basis. The NRC conducted an evaluation along  
13 with Florida Power and Light of the plant's ability to  
14 withstand severe weather or storm surge in excess of  
15 the design basis for the plant, and have assured  
16 themselves that there is sufficient margin capacity  
17 for withstanding the severe weather, any severe  
18 weather event that would be expected at Turkey Point  
19 Units 3 and 4.

20 Essentially the heart of the Environmental  
21 Impact Statement is an analysis of alternatives to the  
22 proposed action. We analyzed a set of alternatives in  
23 great details. These are the alternatives that are  
24 considered most appropriate for Turkey Point.

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1           These included the no action alternative,  
2           which is no license renewal and decommissioning after  
3           the current term expires. It includes four  
4           alternative energy sources that are appropriate for  
5           Turkey Point. Those include coal, natural gas, oil  
6           and construction of a new nuclear plant.

7           We also considered purchased power, which  
8           is power imported from outside the State, and a  
9           combination of alternatives in detail. We also  
10          considered a number of other alternatives, but in less  
11          detail, because they were less appropriate for this  
12          particular site.

13          These include alternative sources such as  
14          wind and solar power, delayed retirement and utility  
15          sponsored conservation.

16          In all of these impacts, including the  
17          impact alternatives, including the no action  
18          alternative, the impacts ranged from small to large,  
19          depending upon the specific impact area. The four  
20          impact areas where the impacts were generally not  
21          small but were moderate to large included  
22          socioeconomic impact, land disturbance, impact on  
23          Biscayne National Park and impacts resulting from  
24          atmospheric conditions.

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1 MR. CAMERON: The next presentation is on  
2 the mitigation analysis.

3 MR. SNODDERLY: Thank you. Good  
4 afternoon. My name is Mike Snodderly. I appreciate  
5 your interest in Draft Environmental Impact Statement.

6 I'm a reactor systems engineer in the  
7 Probablistic Safety Assessment Branch of the Office of  
8 Nuclear Reactor Regulation at NRC. I'll be describing  
9 our review of the environmental impact of the  
10 possibility of accidents during the license renewal  
11 period.

12 As you can see from slide 29, during our  
13 review we considered two classes of events, design  
14 basis and severe. Both of these classes of events  
15 have been shown to pose no undue risk to the public  
16 health and safety because the core damage is either  
17 prevented or the probability of such event has been  
18 shown to be small.

19 Let's first discuss design basis events  
20 which are postulated events that a plant is designed  
21 and built to withstand without allowing core damage.  
22 For example, the plant has been designed with core  
23 cooling systems to accommodate an instantaneous break  
24 of the largest reactor coolant pipe along with the  
25 loss of one power train.

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1           The accident at Three Mile Island  
2 reaffirmed that core damage is possible. We refer to  
3 postulated events of core damage as severe accident.  
4 These events are primarily due to a failure of core  
5 cooling systems and generally involve a combination of  
6 multiple hardware failures and human error.

7           The Nuclear Regulatory Commission set out  
8 to verify that the risk from this class of events was  
9 a small fraction when compared to risks that we are  
10 generally exposed to, such as driving, swimming,  
11 flying or generating electricity from coal. Small  
12 fraction has been defined as one-tenth of one percent  
13 by the Commission.

14           To accomplish this goal the NRC requested  
15 that each existing plant perform an individual plant  
16 examination. This examination has evolved into a  
17 probabilistic safety assessment. The results of these  
18 examinations have confirmed that U.S. nuclear power  
19 plants, including Turkey Point, are consistent with  
20 the Commission's safety goals and that the frequency  
21 of core damage events are extremely unlikely.

22           Design basis events were not shown to be  
23 significant contributors to risk. This is expected  
24 because the plant has been designed to withstand the  
25 consequences of these events. The Nuclear Regulatory

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1 Commission has concluded on a generic basis that the  
2 existing design basis events are appropriate for the  
3 period of extended operation. Because this was  
4 concluded on a generic basis, it is concluded a  
5 Category I issue.

6 Severe events in the Generic Environmental  
7 Impact Statement for license renewal of nuclear power  
8 plants. A study concluded that the risk from  
9 individual nuclear power plants was small and  
10 represents only a small fraction of the risk to which  
11 the public is exposed from other sources.

12 We do evaluate whether there are any cost  
13 beneficial safety improvements that need to be  
14 implemented as part of license renewal. We refer to  
15 these potential improvements as severe accident  
16 mitigation alternatives or SAMAS. The following  
17 analogy may help to understand this evaluation.

18 Most homes have smoke detectors installed  
19 to warn the family if there is a fire. Still greater  
20 protection for the family could be achieved by  
21 installing an automatic sprinkler system. A system of  
22 this type would probably cost thousands of dollars and  
23 few homeowners install these systems. Those  
24 homeowners have judged that the overall risk from fire

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1 is not so high as to warrant spending the additional  
2 funds it would take to install sprinklers.

3 The purpose of the SAMAS evaluation is to  
4 insure that plant changes that reduce the risks  
5 associated with severe events are identified. We  
6 consider alternatives that either reduce the  
7 likelihood that an event will occur or that reduce the  
8 consequences of an event. The alternatives can be in  
9 the form of hardware changes, procedural improvements,  
10 training and so on. So it's a very broad search that  
11 we undergo.

12 This is not the first time plant changes  
13 that reduce the risks associated with severe events  
14 have been considered. As for the accident at Three  
15 Mile Island, licensees were requested to perform  
16 systematic examinations to identify plant specific  
17 vulnerabilities to severe events that could be fixed  
18 with low cost improvements.

19 As a result of this examination Turkey  
20 Point has made many improvements to the plant. So the  
21 evaluation we have performed in support of this  
22 Environmental Impact Statement is a reaffirmation that  
23 previous examinations are still sufficient when one  
24 considers the period of extended operation.

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1           For example, when Turkey Point completed  
2 the first examination in response to the staff's  
3 request after the Three Mile Island accident, they had  
4 a certain estimate for core damage frequency. In 1997  
5 they did a subsequent evaluation, and due to  
6 improvements, procedural improvements, hardware  
7 improvements, that frequency has reduced by about a  
8 factor of twenty. So those are the kind of  
9 improvements that we've seen since the accident.

10           I saw in the Miami Herald an article that  
11 was written by Curtis Morgan, that someone referred to  
12 the Draft Environmental Impact Statement as an Alice  
13 in Wonderland report. First the verdict and then the  
14 trial.

15           I want to emphasize that this is a  
16 reaffirmation of previous examinations and if we found  
17 many cost beneficial safety improvements we would have  
18 to question how sufficient those previous examinations  
19 were. So I want to make sure that we have done  
20 previous evaluations and that this is really a  
21 reaffirmation that previous examinations are still  
22 sufficient when one considers the period of extended  
23 operation.

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1           So let's go to the next slide. Now let's  
2 look at this approach as it was applied to Turkey  
3 Point.

4           Candidate improvements that either did not  
5 apply to Turkey Point or had already been implements  
6 were eliminated. Then each remaining improvement was  
7 assessed and assigned a level of risk reduction and  
8 estimated cost. The risk reduction was converted into  
9 a dollar value to allow a comparison between the  
10 benefits of the risk reduction and the cost. The  
11 final criterion considered was whether the risk  
12 reduction was associated with aging effects during the  
13 period of extended plant operations.

14           This environmental assessment was looking  
15 at the impacts of extending the plant operation for  
16 another twenty years.

17           167 candidates were identified for  
18 subsequent evaluation. Of these, 64 were already  
19 implemented as part of the individual plant  
20 examination process, all on the licensees own  
21 initiative. And that's what caused that factor of  
22 twenty reduction that I spoke of earlier. 27 were not  
23 applicable to Turkey Point.

24           In the United States we have two types of  
25 designs, the pressurized water reactor and boiling

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1 water reactor. Some of the improvements that may  
2 improve performance at boiling water reactors are not  
3 applicable to pressurized water reactor such as Turkey  
4 Point, and that's where most of those 27 were a result  
5 of.

6 So that leaves 76 remaining improvements,  
7 and more detailed evaluations were performed for those  
8 76 remaining improvements. The more detailed  
9 evaluations resulted in a determination that none of  
10 the potential improvements were cost benefit ratio.

11 To sum up the results then, our overall  
12 conclusion is that the additional plant changes  
13 mitigates that actions are not required as part of  
14 license renewal.

15 Thank you for your attention.

16 MR. CAMERON: We're going to have one real  
17 brief conclusion here from Jim Wilson and then we're  
18 going to go to you for questions.

19 Thank you, Mike.

20 MR. WILSON: To summarize, the impacts of  
21 license renewal at Turkey Point are small for all  
22 impact areas, but the impacts of alternatives range  
23 from small to large. Therefore, the staff preliminary  
24 conclusion is that the adverse impacts of license  
25 renewal at Turkey Point are not so great that

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1 preserving the option of license renewal for energy  
2 planning decision makers would be unreasonable.

3 Quick re-cap of current status. We issued  
4 the Draft Environmental Impact Statement for Turkey  
5 Point license renewal last month. We're in the middle  
6 of a public comment period that lasts until September  
7 6th, and we expect to address the public comments,  
8 including any necessary revisions to a Draft  
9 Environmental Impact Statement and issue that Final  
10 Environmental Impact Statement before the end of  
11 January, 2002.

12 This slide presents information on how to  
13 access the Turkey Point Environmental Impact  
14 Statement. You can contact me directly at the phone  
15 number provided. I'll mail you a copy. The document  
16 is available at the Homestead Public Library and it's  
17 available on the web.

18 This last slide gives details on how to  
19 submit comments on the Draft Environmental Impact  
20 Statement. You can submit them in writing at the  
21 address provided. You can submit them in writing at  
22 the E-mail address provided, or you can present them  
23 in person at the Commission's offices in Rockville.

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1           MR. CAMERON: And Jim, just to emphasize  
2 for everybody, the written comments on the Draft  
3 Environmental Impact Statement are due when?

4           MR. WILSON: September 6th.

5           MR. CAMERON: Okay, September 6th.

6           Let's go out to all of you for questions  
7 on the findings. I know that many of you who are  
8 going to speak are going to be making statements that  
9 may agree, disagree or whatever, with the findings.  
10 And again, the NRC is here to listen to that, to  
11 evaluate those comments in preparing the Final  
12 Environmental Impact Statement.

13           But just to make sure that the information  
14 presented was clear, do we have questions on the last  
15 presentation that you heard?

16           Let's go back here. Dr. Brown, could you  
17 just give us your name and affiliation?

18           MR. BROWN: I'm Dr. Brown, Jerry Brown,  
19 with the Radiation and Public Health Project. Mike,  
20 I have a question for you. I'm sorry, I didn't get  
21 your last name.

22           In relationship to the very detailed  
23 accident analysis that you've done and your conclusion  
24 that things are in a safety zone, if that is so, does  
25 the NRC take a position on the renewal of the Price

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1 Anderson Act, which is up for renewal in Congress?  
2 The Price Anderson Act passed in 1957 at the  
3 insistence of the utilities, place a limit of  
4 liability on any pro-reactor accident and the limit of  
5 dollar liability that the utility would face.

6 If the reactors are in your analysis safe,  
7 do you feel there is a need for the Price Anderson Act  
8 and does the NRC Commission or staff take any position  
9 on the Price Anderson Act?

10 MR. SNODDERLY: The Price Anderson Act  
11 assumes that there is an accident. So in response to  
12 your question I say yes, there is a need for Price  
13 Anderson, because what we're doing is, we're trying to  
14 assess that the probability of such accident is low.  
15 What Price Anderson's trying to address is, given an  
16 accident, you need some type of insurance to cover the  
17 cost associated with such an accident.

18 So I think that's a key distinction. One  
19 is trying to show that the probability or likelihood  
20 of such an accident is low; that's what I was looking  
21 at and I want to put that over here. Now given an  
22 accident, do we need some type of an insurance fund to  
23 address the consequences associated with the given  
24 accident.

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1           So I think that's an important  
2 distinction. Does that answer your question?

3           MR. BROWN: (Inaudible.)

4           MR. CAMERON: I'm going to repeat that for  
5 the record. Does the NRC take a position on renewing  
6 the Price Anderson Act?

7           Let's go to Chris Grimes. You heard from  
8 Mike on one aspect of it. Chris, answer to that?

9           MR. GRIMES: I'm going to say that I think  
10 that we look to Congress to make some decisions about  
11 liabilities and we've established a fairly detailed  
12 evaluation of the risks of power plant accidents and  
13 their probability. And just like any other insurance  
14 fund, you can establish  
15 -- you can use those to establish financial risk  
16 factors, but I don't think the NRC staff has a  
17 particular position on the need for such insurance or  
18 that fund. And that I do know that that matter is  
19 pending before Congress, and if we were to ask for an  
20 opinion -- quite frankly, I don't know that we would  
21 express an opinion.

22           MR. CAMERON: I think we'll need to go on  
23 here, but some information that may be helpful is that  
24 there was a hearing, Congressional hearing, about two  
25 weeks ago on Price Anderson that not only the NRC but

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1 some non-governmental organizations and others  
2 testified at. Now I don't know if there's an answer  
3 in the NRC testimony to your question, Dr. Brown, but  
4 can we make and note, and I'll make a note that we can  
5 get Dr. Brown the copy of the NRC's public testimony  
6 in that.

7 All right, other questions?

8 MR. ONCAVAGE: Mark Oncavage, Petitioner  
9 for Safety Hearings, pro se.

10 The question is, the published date of the  
11 GEIS is 1996, correct? How much time prior to 1996  
12 were you collecting data and studies?

13 MR. GRIMES: I'm going to defer to Mr.  
14 Wilson.

15 MR. WILSON: I believe that they were  
16 working on the Generic Environmental Impact Statement  
17 in the late 1980's. We had a working draft that we  
18 were working with in early 1990's. I believe we  
19 issued it for comment in 1992, and it took four years  
20 to resolve the comments and issue a final document.

21 MR. ONCAVAGE: So to re-cap, the earliest  
22 portion of the data collection goes back to the late  
23 '80's?

24 MR. WILSON: That's my understanding.

25 MR. CAMERON: Okay, other questions?

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1                   Yes, sir, and please just state your name  
2 and affiliation for the record.

3                   MR. DAN: My name is Steve Dan. I live in  
4 Miami. I've lived here my whole life.

5                   Dr. Brown's article from the other day,  
6 I'm sure you've all had a chance to review it, about  
7 the Tooth Fairy Project. And it's a national study of  
8 baby teeth in Miami-Dade, where they found that the  
9 teeth have the highest concentrations of strontium 90  
10 found anywhere in the nation.

11                   I was just wondering, because according to  
12 this we're within regulatory limits. I was concerned  
13 with what are those limits, how much is being emitted  
14 now, how much has been emitted over time? You say you  
15 are within limits now. Have you always been within  
16 those limits?

17                   You also mentioned that the soil is within  
18 range of soils found around nuclear weapons testing  
19 fall-out. How does that compare to the rest of the  
20 nation now?

21                   And you say that cancer rates are stable  
22 or declining, and I was wondering if that's true here,  
23 because according to Dr. Brown's article, that  
24 information seems to be contradictory.

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1                   So I was wondering if you could comment on  
2 those things.

3                   MR. CAMERON: Okay, there was a whole list  
4 of questions there. Do we want to go to Trish  
5 Milligan to try to address some of those?

6                   Keep in mind that we are considering  
7 questions, comments, on the record. Hopefully we'll  
8 give you some of the information you need and see if  
9 we can perhaps provide other information later.

10                  This is Patricia Milligan from the NRC  
11 staff. She's with the Office of Nuclear Reactor  
12 Regulation and she is a health physicist, correct?

13                  MS. MILLIGAN: Yes. I'm a certified  
14 health physicist and also a pharmacist and licensed to  
15 practice in a bunch of different states and I've done  
16 a lot of work in nuclear pharmacy as well. So my  
17 background has been fairly extensive and I've only  
18 been with the NRC about three years.

19                  So I'm going to have to ask you to repeat  
20 all of your questions. I didn't read the article by  
21 Dr. Brown in the Miami paper. I think it was  
22 yesterday's paper. I didn't get a chance to see that.

23                  So if you could ask me again, one at a  
24 time, and then I'll answer your questions one at a  
25 time.

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1 MR. DAN: Are you aware of the Tooth Fairy  
2 Project?

3 MS. MILLIGAN: Yes, I am.

4 MR. CAMERON: Why don't you go up to the  
5 front? That's a good idea.

6 MR. DAN: The Tooth Fairy Project. Are  
7 you aware of the Tooth Fairy Project?

8 MS. MILLIGAN: Yes, I am.

9 MR. DAN: Okay. The conclusions there  
10 look pretty grave for both sets, grown-ups who have  
11 lived down here our whole lives. Could you comment on  
12 that?

13 MS. MILLIGAN: Well, the Florida  
14 Department of Health just released from the Department  
15 of Epidemiology, a review of that study and their  
16 conclusions were very different looking at the very  
17 same data that Dr. Brown and his group looked at.

18 The report is available and I could read  
19 you sections of it, but the summary says in essence  
20 that they were unable to replicate any of the results  
21 from Dr. Brown's study using Dr. Brown's data and that  
22 they found in fact the cancer rates in this area to be  
23 at or below State and National averages and they did  
24 not find the instance of cancers and strontium to be  
25 what Dr. Brown's study has been suggesting. That was

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1 just released today and there is copies available  
2 here, sir, for you.

3 MR. CAMERON: Okay, second question?

4 MR. DAN: We were talking about that the  
5 strontium 90 concentrations are in the soil,  
6 concentrations that you'd expect near nuclear weapons  
7 testing facilities. Is that what we believe is going  
8 on, that we're at around where the rest of the nation  
9 is? I mean does the rest of the nation have the same,  
10 you know, fall-out problem as if they were right next  
11 to a nuclear weapons test facility?

12 MS. MILLIGAN: As I understand the  
13 question, you are interested in what the strontium 90  
14 concentration in the soil is in this area?

15 MR. DAN: Correct.

16 MS. MILLIGAN: Okay. When you have fall-  
17 out from atmospheric testing, what you see is you have  
18 different fall-out patterns depending on such things  
19 as rainfall. Rain will scrub particulates from the  
20 atmosphere and they'll deposit. Areas of higher  
21 rainfall will have higher particulate matter such as  
22 strontium 90 and other things in atmosphere testing.

23 Coincidentally or interestingly enough,  
24 some of the sites out west where the atmospheric  
25 testing occurred have in fact, because of low

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1       rainfall, actually less fall-out than some of their  
2       neighbors that have more rainfall.

3               So rainfall patterns, if you look at it  
4       globally, not just in this country but around the  
5       world, they all vary depending on regional factors.  
6       We do not see any one particular area to be alarmingly  
7       high in terms of fall-out if you look at it on a  
8       national and global average.

9               MR. DAN: So again, you're saying that the  
10       soil here in Miami-Dade County is no higher than the  
11       national average?

12              MS. MILLIGAN: Yes, that's correct. It's  
13       all within the bounds of background that we expect  
14       from strontium 90 fall-out from atmospheric testing.

15              I will say though that certain states,  
16       because of precipitation patterns and because of  
17       composition of soil, may have less strontium 90 and  
18       other states may have a little more, but if you look  
19       at it as an average, we're all right in the average  
20       that's expected from atmospheric fall-out.

21              MR. CAMERON: Another question, Mr. Dan?

22              MR. DAN: We're saying here that the  
23       National Cancer Institute attributes cancer rates to  
24       longer life and that the cancer rates have been stable  
25       or declining. I'm sure that's nationally. But here,

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1 according again to Dr. Brown's article, that's not  
2 true. In fact, cancer rates are increasing in this  
3 part of the area.

4 MS. MILLIGAN: Well again, if you take a  
5 look at what the Department of Health just released  
6 today and they reviewed the cancer statistics, they do  
7 not find the increase in cancer that Dr. Brown's study  
8 has said. And they used the same data that Dr. Brown  
9 used.

10 If you look at the National Cancer  
11 Institute national data, you find that Florida, as to  
12 these counties down here, tend to have a lower than a  
13 national average cancer rate for some of -- for breast  
14 cancer and for leukemia.

15 MR. DAN: Finally, just curious about, is  
16 there a way for the public to be able to find  
17 strontium 90 level in their house, like some sort of  
18 little test kit or something along these lines so that  
19 we could know when you guys --

20 MS. MILLIGAN: That's an interesting  
21 marketing idea. Maybe that's my next career.

22 But no, at this point, you could I suppose  
23 find a lab that could do the analysis for you, and a  
24 great many of our labs are able to do those analyses.

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1 I don't know of anything commercially that's  
2 available.

3 What we do know when we look at  
4 environmental samples, is that the amount of strontium  
5 90 we've learned is very, very, very low in terms of  
6 picocuries quantities and picocuries -- would be one  
7 -- so we're looking at extraordinary small quantities,  
8 oftentimes are too small to even be detected.

9 MR. CAMERON: Okay. Mr. Dan, I think  
10 we're going to move on, and I thank you for your  
11 questions. I would point out that Dr. Brown and Dr.  
12 Sternglass are going to be making some comments later  
13 on. We also have Mr. Keaton here from the State of  
14 Florida who might provide us a little bit more  
15 information on the recent Florida study, although I  
16 would emphasize in fairness to him that that is not  
17 his particular group and for Mr. Dan or others who  
18 want to talk to Ms. Milligan later after the meeting,  
19 please take the opportunity to do that.

20 Do we have other questions before we go  
21 on? Yes, ma'am?

22 MS. GILBERT: Cathy Gilbert. Just to  
23 repeat one question that was just now asked and wasn't  
24 answered, was what is the emission rate here? What  
25 kind of emissions do we have from the plant?

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1 MR. CAMERON: I think that that's a broad  
2 question in terms of different types of emissions.  
3 Who's the best person to answer that? Trish?

4 MS. MILLIGAN: Every year our licensee is  
5 required to file an annual report that details what's  
6 released, the quantities of all the isotopes that are  
7 released. And when I went back and took a look  
8 specifically at Turkey Point in preparation for coming  
9 down here so I could answer these kind of questions,  
10 all the releases from Turkey Point were within minimum  
11 ranges typically for the strontium isotope which were  
12 well within the regulatory limits for releases. Some  
13 years they were below concentrations. But the folks  
14 from Turkey Point probably have that data more readily  
15 available. We also have it available. I think it's  
16 on our website.

17 MR. CAMERON: So that if people did want  
18 to take a look at that information we could give them  
19 a reference on our website so they could take a look  
20 at that and I'll put that up there as another issue  
21 and we'll try to get that where you can access that.

22 Yes?

23 MS. RUDISCH: Mary Rudisch, Sierra Club.  
24 So the information that the NRC reviews is information  
25 that Florida Power and Lights gives you?

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1           MR. CAMERON: Can we talk -- I think put  
2 this in context and talk about how the monitoring  
3 program works, where it starts, whose responsibility  
4 it is? Can you do that for us, Chris?

5           MR. GRIMES: I'm going to try and do that  
6 on a very broad scale.

7           The power reactor license requires that  
8 the applicant have a monitoring program. And so they  
9 actually conduct the monitoring. In this case I  
10 understand, and I'll be corrected if I'm wrong, I'm  
11 sure, I believe that the State of Florida actually  
12 does the monitoring for them and then they in turn  
13 take those results and give them back to the NRC as  
14 the results of the monitoring program they're required  
15 to have.

16           But there are also other monitoring that's  
17 done beyond the NRC requirements, simply for the  
18 utility to have a better understanding about what's  
19 going on in the environment around them. But they  
20 provide a required set of results on environmental  
21 monitoring from in the plant to the immediate  
22 environment and then to the extreme environment.  
23 There are three ranges of monitoring. And then they  
24 provide those results to us.

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1           But as I mentioned before, we have  
2 resident inspectors that are checking the monitoring  
3 results almost on a daily basis depending on where the  
4 monitoring results might occur during their plant  
5 tours. And then we also have region based and  
6 headquarters based staff that come out and  
7 periodically sample the monitoring reports relative to  
8 actual in plant conditions.

9           MR. CAMERON: Thank you very much. Let's  
10 go to this gentleman here.

11           MR. DANEK: My name is Joe Danek with  
12 Florida Power and Light, and as the NRC just said, we  
13 do have a monitoring program that's conducted by the  
14 plant. It is closely followed by the resident  
15 inspector, but also the regional radiation protection  
16 inspector from the Nuclear Regulatory Commission and  
17 monitor releases. We also have a cross-check sampling  
18 program associated with that.

19           One thing very unique with the State of  
20 Florida is that the State Department of Health does  
21 the entire radiological environmental monitoring  
22 program around Turkey Point and St. Lucie site.  
23 That's very unique for the State of Florida. Many  
24 states, power plants do their own radiological  
25 environmental monitoring program, but in our case the

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1 State does that and I think they -- the radiological  
2 environment around Turkey Point and their measurements  
3 continue to be very, very low level to within  
4 comparable levels within the State.

5 MR. CAMERON: Okay, thank you very much.  
6 Maybe Mr. Keaton can tell us a little bit more about  
7 that when we hear from him later.

8 Are there other questions before we move  
9 on to the -- to hearing more from our review? Yes?

10 MS. JACOBS: I don't know exactly who to  
11 direct this to. Diane Jacobs, Sierra Club. But do  
12 you think that there's any evidence or any reason to  
13 suspect that the current acceptable level of strontium  
14 90 in emission from these nuclear power plants might  
15 be too high?

16 MS. MILLIGAN: One of the things that I  
17 looked at when I was evaluating a lot of this data is,  
18 I took a look at what's happening in America and then  
19 I looked at what's happening outside in other  
20 countries. Other countries have nuclear power plants.  
21 For example, just about eighty-five percent of  
22 electricity is from nuclear power in France, and I  
23 looked at Japan as well. And when I went and looked  
24 at their incidents rates of cancer and looked at  
25 strontium 90 and looked at those things, what I found

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1 was logically -- I expected that okay, if there's a  
2 strontium 90 issue than France should have very high  
3 instances of these diseases. And what we found --  
4 what I found when I looked at the disease rate, cancer  
5 rates in France, taking away from lung cancer because  
6 they smoke -- but if you look at breast cancer and  
7 blood cancer is what you find is that they are in par  
8 or actually less than in America. If you go to Japan  
9 you find that breast cancer and blood cancers are up  
10 to one-third less than what they are in America. So  
11 if strontium 90 were the smoking gun that's causing  
12 all these things, then you should expect to see it  
13 globally in those countries similar to U.S., you  
14 should expect to see comparable factors, and you just  
15 don't see that.

16 MS. JACOBS: (Inaudible.)

17 MS. MILLIGAN: I think our levels are  
18 similar to international levels, yes. Their levels  
19 are not higher than ours, in answer to your question.  
20 They're actually at our level, or in fact in some  
21 instances, lower.

22 MR. CAMERON: Thank you very much. Chris  
23 just wants to add something.

24 MR. GRIMES: I'd like to add that during  
25 the course of some of the comments that we're going to

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1 hear tonight, we're going to hear from views on  
2 radiation health effects, we're going to hear some  
3 questions about the adequacy of radiation health  
4 standards. Our purpose in this meeting is to hear  
5 from you, to hear about those concerns and to get as  
6 much in the way of specifics about these concerns as  
7 possible so that we can go back and address them.  
8 There are numerous studies that we could refer to and  
9 there are some conferences that are held just for the  
10 purpose of discussing radiation health effects and low  
11 levels of radiation and separation of variables and  
12 things like that. But we do have a fairly detailed  
13 account of what the radiation safety standards are in  
14 Title 10, refer to Federal regulations and where they  
15 come from and how they're founded and what they mean.  
16 And then we have a variety of these different studies.

17 And so as part of what we're going to do  
18 tonight, today or whatever. I have already lost where  
19 we are in the day. We're in Florida, I know that.  
20 But we do want to hear about these comments and  
21 concerns and then we're going to try and gel those  
22 into some issues that we can address specifically in  
23 response to the comments in the preliminary report.

24 MR. CAMERON: Okay. Thank you very much,  
25 Chris.

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1                   Yes, sir, and could you tell us who you  
2                   are?

3                   MR. VELAZQUEZ:       My name is Arnold  
4                   Velazquez.    I'm a consulting engineer.    And the  
5                   question I'd like to ask, are there any steps in the  
6                   process to verify or validate the test results  
7                   obtained at the plant?

8                   MR. CAMERON:    When you say test results,  
9                   I have a feeling -- okay.    The question is, is there  
10                  any way to validate the monitoring results?

11                  MR. GRIMES:    I'm going to give a very  
12                  simplistic answer to that.

13                  The normal process consists of looking at  
14                  the standards that are used to calibrate the  
15                  instruments that are relied upon to make a  
16                  measurement, and so part of the inspection process is  
17                  to check the validity of the inspection standard.  
18                  Most of them go back to National Institute of  
19                  Standards and Technologies reference point that are  
20                  used in order to calibrate the instrument.    And so we  
21                  normally look at that process that's used to calibrate  
22                  the instruments that are relied upon.        But  
23                  periodically there will be independent samples that  
24                  are taken and tested separately as a means of also  
25                  validating the process that is used, and those are

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1 done randomly. They're normally done on an  
2 unannounced basis so that the process -- there's a  
3 confidence in the process level by checking it in an  
4 unannounced way.

5 MR. CAMERON: Okay, thank you very much.

6 Let's take one more question and then  
7 let's move on to public comment. As I said and  
8 several have said, if you have time after the meeting  
9 to talk individually with the NRC staff they'll be  
10 available for you.

11 Yes, ma'am?

12 MS. ROBERTS: My name is Maria Roberts and  
13 what I would like to hear right now is a summary of  
14 the Tooth Fairy report and a summary of the Florida  
15 Department of Health report and thereafter continued  
16 public comment. That's what I would like, please.

17 MR. CAMERON: Well, I understand why you  
18 would like to hear that now, but I think that what  
19 we're going to have to do is to hear that during the  
20 course of the public comment, and we do have Dr. Brown  
21 and Dr. Sternglass who is going to talk about the  
22 Tooth Fairy Report. What we'll do is we'll follow  
23 that up with the State personnel who can at least tell  
24 us a little bit about it.

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1 Well, hopefully we should be there around  
2 3:30, okay. All right.

3 Before we go into public comment, there is  
4 a NRC evaluation form for the meeting, okay. It's  
5 called NRC Public Meeting Feedback. We try to use  
6 this to get a feel if we're doing an effective job, at  
7 least on the public meeting part. So if you could  
8 fill that out for us before you leave. There's copies  
9 out there on the desk.

10 And right now what I'd like to do is, we  
11 do have Yolanda Marsh with us. I believe she probably  
12 is still with us, from Commissioner Denis Moss'  
13 office, and I was going to ask her to come up first.

14 I just would ask you to try to keep it to  
15 five minutes. We may have some people who go over a  
16 minute or so. Some may be under.

17 Yolanda, you can be there or you can be up  
18 here, wherever you feel most comfortable.

19 MS. MARSH: I don't even have five  
20 minutes.

21 MR. CAMERON: Good. I don't mean good,  
22 but -- (Laughter).

23 Yolanda, our stenographer said that this  
24 one isn't picking up as much, so maybe you could go --

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1 did you fix this? Why don't you go ahead and try it?  
2 I'm sorry.

3 MS. MARSH: Hello. My name is Yolanda  
4 Marsh. I am with Commissioner Moss' office. I am  
5 just here today to represent Commissioner Moss because  
6 he couldn't be here due to another engagement.

7 And I'm just basically here to say that  
8 Commissioner Moss is in support of the Turkey Point  
9 Power Plant renewal. And that's basically it, and if  
10 you all have any questions for him, you can feel free  
11 to contact our office or write letters to comment on  
12 whatever you feel that you would like to comment on.

13 And I do have my business cards here if  
14 you all want them. I will place them up front and you  
15 can get them later.

16 MR. CAMERON: Okay. Thank you very much,  
17 Yolanda, and thank Commissioner Moss for us.

18 Let's go to Mr. Curt Ivy who's the City  
19 Manager for the City of Homestead. Mr. Ivy?

20 We're going to go through some local  
21 emergency planning officials next. We're going to  
22 hear from Florida Power and Light and then we're going  
23 to get to Dr. Brown, Dr. Sternglass, and State of  
24 Florida and others.

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1                   Mr. Ivy?       Wherever you feel most  
2 comfortable.

3                   MR. IVY: Let me go up here.

4                   Thank you. Good afternoon. I'm Curt Ivy,  
5 City Manager for the City of Homestead.

6                   I'm here today to speak in favor of Turkey  
7 Point. I'm not going to speak on the need for future  
8 power. I'm not going to speak on their safety record.  
9 I'm not going to speak on their environmental record.  
10 All that I'm sure will come out.

11                   I'm going to speak to you as a community  
12 manager in the City of Homestead. I'd rather talk  
13 about the impact that Turkey Point has on our  
14 community. Again, there's a lot more experts out  
15 there that can deal with the other issues in regards  
16 to Turkey Point. But myself, I'm interested in the  
17 impact to our community.

18                   The impact to our community for the  
19 presence of Turkey Point being in our community is  
20 very significant. We're talking 800 employees, one of  
21 our largest employers in the area. I'm talking about  
22 another 500 seasonal, I will use the term seasonal  
23 workers, that come in and use the services of the  
24 surrounding community, including Homestead. I'd like  
25 to talk about spouses of employees being our teachers,

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1 our nurses, other members in the work force for our  
2 community. I mention that only because we had one  
3 other organization here that's no longer here and that  
4 was Homestead Air Force Base.

5 We know what the loss of economic  
6 generator is to this community because we've had that  
7 happen to us, and that's in the form I can relate it  
8 to, Homestead Air Force Base.

9 We lost not only the economics of the  
10 business there, but we also lost things such as I just  
11 mentioned, school teachers, nurses, the kids in our  
12 honors programs. It just diluted the quality of our  
13 community, the quality of life in our community,  
14 considerably, and I would relate that if we didn't  
15 have a Turkey Point, for example, here and an employer  
16 of the magnitude of that, we would again experience  
17 that kind of negative impact to our community.

18 So I did want to be very specific about  
19 that and speak about the impact on the surrounding  
20 community. We're talking about salaries with  
21 disposable income. If a community is going to grow  
22 and enrich itself, we don't just have to have jobs, we  
23 have to have jobs that bring in salaries that are  
24 above the norm, or else we'll just stay level. We  
25 have to have salaries that keep above the norm to

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1 bring in disposable income into our community if we  
2 expect to grow economically in our community. It's  
3 not always the quantity of jobs. Sometimes it's the  
4 quality. Here we have both, quantity and quality in  
5 our jobs.

6 I also -- again, I read some of the data  
7 on this particular issue in terms of their average  
8 salaries. The \$62,000.00 a year is what was the  
9 average salary mentioned for Turkey Point employees.  
10 This is significant in our community. Our average  
11 salary in our community does not reach \$62,000.00, I  
12 assure you.

13 We are again, as a community leader in the  
14 City of Homestead and someone who manages the day to  
15 day business, or tries to, and if you've been reading  
16 the paper lately you might say that there might be a  
17 new manager, but at any rate, we have our problems and  
18 we certainly do not want to take the chance on losing  
19 a partner that we have. And I didn't mention the  
20 community activities they get involved in, the  
21 volunteerism, the donations, the United Way, over  
22 \$150,000.00 going to the United Way, among a whole  
23 host of other types of activities that we can count on  
24 from the employees and the company of FP&L.

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1           So from the prospective as a community  
2 leader, this is an important issue for us, one of many  
3 we face. And I will reiterate we have lost economic  
4 engine. We do know what that means to a community.  
5 Until you lose it, sometimes you take it for granted.  
6 And we certainly don't want to do that. One thing, we  
7 learn lessons from history. At least we try to  
8 remember those and learn lessons from history.

9           So for our prospective from the City of  
10 Homestead, we totally support FP&L and their  
11 relicensing. Thank you.

12           MR. CAMERON: Thank you, Mr. Ivy.

13           Next we're going to go to Chuck Lanza who  
14 is from the Miami-Dade County Emergency Planning. And  
15 Chuck, please tell us your title and everything else,  
16 okay.

17           MR. LANZA: Thank you very much. I'd like  
18 to welcome the NRC and thank you for being here today.  
19 My name is Chuck Lanza. I'm the director of the  
20 Miami-Dade County Office of Emergency Management. I  
21 was present and had the opportunity to speak at the  
22 last public hearing. I've also had the good fortune  
23 to be able to read into the record a letter from Mayor  
24 Alex Penelas, which I will do again tonight.

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1 Both the Mayor and I have read the Draft  
2 Supplemental Environmental Impact Statement and we are  
3 very comfortable. He's comfortable with presenting  
4 this letter and I am comfortable with supporting him  
5 in that presentation.

6 The quotes in the letter, Turkey Point  
7 nuclear is one of the safest and best run nuclear  
8 plants. As the emergency manager for Dade County I  
9 can attest to that. We work very closely with the  
10 company and with all the employees of the company and  
11 I can reaffirm the fact that I do attest to their  
12 safety and their willingness to work very closely with  
13 the community to make their operation a safe  
14 operation.

15 At this time I'd like to read into the  
16 record a letter from the Honorable Alex Penelas. The  
17 letter is from the Office of the Mayor, Miami-Dade  
18 County, Florida, Alex Penelas, Mayor.

19 "Good evening. I would like to welcome  
20 the members of the Nuclear Regulatory Commission to  
21 Miami-Dade County and thank them again for the  
22 professionalism and commitment on this very important  
23 endeavor. I received and reviewed a copy of the Draft  
24 Supplemental Environmental Impact Statement which was  
25 prepared after much careful analysis by the NRC. I am

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1 pleased with their assessment and agree that renewing  
2 the operating license of the Turkey Point Nuclear  
3 Plant is the most positive environmental option to  
4 help meet the growing energy needs of South Florida.  
5 I would like to explain why I support the license  
6 renewal of the Turkey Point Nuclear Plant."

7 "Miami-Dade County is a growing community  
8 with increasing demands for electricity. By approving  
9 the license Turkey Point Nuclear Plant will be able to  
10 provide South Florida with safe, clean, reliable and  
11 economical electricity well into the twenty-first  
12 century."

13 "Turkey Point Nuclear Plant is one of the  
14 safest and best run nuclear plants in the country as  
15 judged by the regulators and its peers. It has  
16 consistently received top ratings from the Nuclear  
17 Regulatory Commission and by the Institute of Nuclear  
18 Power Operation."

19 "Miami-Dade County has a very strong  
20 record of its commitment to protect its natural  
21 environment. The Turkey Point employees have  
22 developed a unique stewardship of the environment in  
23 the region surrounding the plant by preserving the  
24 natural habitat which provides homes to many  
25 endangered species including the American crocodile."

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1 "Miami-Dade County is a diverse community  
2 with many needs. The Turkey Point employees are  
3 caring neighbors to communities surrounding the plant.  
4 Its employees make significant contributions to the  
5 community and to civic organizations."

6 "Turkey Point Nuclear Plant is the largest  
7 private employer in the region with over 800 employees  
8 and its purchase of local services help sustain  
9 economy of South Miami-Dade County."

10 "I appreciate being allowed to enter these  
11 comments into the record which enables me to  
12 demonstrate why I support Turkey Point Nuclear Plant  
13 license renewal application. I am always available  
14 for questions. Thank you."

15 "Sincerely, Alex Penelas, Mayor, Miami-  
16 Dade County."

17 MR. CAMERON: Thank you very much.

18 Another emergency management official,  
19 Irene Toner from Monroe County. Irene?

20 MS. TONER: Good afternoon. My name is  
21 Irene Toner. I'm the Director of Emergency Management  
22 from Monroe County.

23 The history of nuclear power plants in the  
24 United States has shown public support in a general  
25 decline and now a recent renewal of interest. The

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1 renewal of interest in nuclear power plants has been  
2 due in part to their improvement for producing  
3 electricity. It would be of no use without their  
4 ability to maintain and improve their safety records.

5 The safety of the citizens of Monroe  
6 County is my primary reason for renewing this support.  
7 The Draft Environmental Impact Statement for the  
8 Turkey Point Plant, the impact of renewing the  
9 operating license for Units 3 and 4 and the  
10 alternatives available if the license is not renewed.

11 The conclusion of the report is that there  
12 is no significant change to the present environmental  
13 impact and minimal change to the potential  
14 environmental risks from continuous operation of the  
15 plant.

16 The alternatives to continued operation of  
17 the plant and the reports do not appear to be  
18 economically or environmentally effective. The plant,  
19 although located in Miami-Dade County, has the  
20 potential to have a large impact on Monroe County and  
21 its citizens. If the plants are maintained in  
22 accordance with the NRC issued license and problems  
23 associated with extended operational life and continue  
24 to support the emergency plan, it is reasonable to

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1 conclude that it will continue to be good neighbors to  
2 Monroe County.

3 Thank you.

4 MR. CAMERON: Thank you very much, Irene.

5 Next we're going to hear from the  
6 representatives of the licensed applicant, Mr. Robert  
7 Hovey from Florida Power and Light. He's the Vice  
8 President, Turkey Point Plant, and then we'll hear  
9 from Ms. Thompson and then we're going to go to Dr.  
10 Brown.

11 MR. HOVEY: Good afternoon and thank you,  
12 Mr. Cameron. My name is Bob Hovey and I am the Vice  
13 President of Florida Power and Light's Turkey Point  
14 Nuclear Power Plant. I appreciate this opportunity to  
15 speak to you today about FPL's application for the  
16 renewal of the Turkey Point operating licenses.  
17 Assisting me is Liz Thompson, our license renewal  
18 project manager who will address more specifically the  
19 findings contained in the Draft Supplemental  
20 Environmental Impact Statement next.

21 I'd like to thank the Nuclear Regulatory  
22 Commission for arranging and holding the meeting  
23 today. FPL strongly supports the openness of this  
24 process. During the last two years we have been  
25 involved in dialogue with the communities surrounding

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1 Turkey Point. We've met with more than one thousand  
2 homeowner, community groups and Governmental  
3 officials. Our purpose was to share the information  
4 about license renewal and plant operations, and we  
5 believe that the community interests and priorities  
6 should be incorporated into not only our license  
7 renewal at Turkey Point but overall operations.

8 Community in-put is an integral part of  
9 the license renewal process. The application we  
10 prepared consisted of two parts, a safety analysis and  
11 an environmental report. Our application has been  
12 open to public review for some time and the NRC has  
13 requested comments from interested parties.

14 Just as the process has been open in  
15 reviewing the environmental aspects of the license  
16 renewal, the safety analysis is following a parallel  
17 path. There are open public meetings and the NRC is  
18 currently going through an intensive review of plant  
19 systems to insure the safe operation for an additional  
20 twenty years. A public meeting on the scoping of  
21 NRC's environmental review of our license renewal  
22 application was held here at the Homestead YMCA in  
23 December of last year.

24 Today's meeting continues the open process  
25 of seeking public in-put on license renewal. We

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1 welcome the opportunity to gain additional community  
2 in-put on the environmental aspects of our license  
3 renewal.

4 I'd like to thank the members of the  
5 community represented here today for taking time out  
6 of your busy schedules to share your views and ideas  
7 on the Draft Report with the Nuclear Regulatory  
8 Commission. We appreciate the support provided to us  
9 by the South Dade community, but I'd also like to  
10 thank the NRC staff and members of the National  
11 Laboratories Review Team for their work in preparing  
12 the Supplemental Environmental Impact Statement for  
13 Turkey Point license renewal.

14 I believe the report reflects a  
15 comprehensive assessment of the environmental impact  
16 of license renewal.

17 With that said, let me provide a little  
18 bit about my background. I came to Florida Power and  
19 Light in 1995 as the site Vice President at Turkey  
20 Point with a Master's Degree in Business  
21 Administration, a Bachelor's Degree, a Bachelor's of  
22 Science Degree in Nuclear Engineering and a Bachelor  
23 of Arts Degree in Business Administration. I also  
24 have spent time at other utilities in the nuclear

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1 field and I did time in the United States Navy in the  
2 Submarine Service.

3 On a personal level, my wife and I have  
4 six children and we live here in the South Dade area.  
5 As Vice President of Turkey Point my first job and my  
6 primary focus is the health and safety of my family,  
7 the Turkey Point employees, my friends and this  
8 community. Their well being comes before all else.

9 When I look at the evidence presented in  
10 the Supplemental Environmental Impact Statement and  
11 other license renewal documents, I'm assured of the  
12 plant's safety and positive impact on our environment.  
13 I believe the case for continued operation for Turkey  
14 Point is strong.

15 Let me address four areas. First, our  
16 performance, the economics of Turkey Point's  
17 electricity, the environmental stewardship and the  
18 community presence.

19 First, the performance of our plant is top  
20 notch, thanks to our employees. Their time, effort  
21 and dedication have resulted in Turkey Point  
22 consistently being recognized as safe and one of the  
23 most reliable and efficient plants in the industry.  
24 Our employees have also worked diligently through  
25 effective maintenance programs to sustain the option

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1 for continued plant operations well beyond the initial  
2 forty year license.

3 Not only does the NRC monitor our  
4 performance, other independent agencies also agree  
5 that our operations are safe and have no adverse  
6 impact on the surrounding community. This includes  
7 the State of Florida Department of Health which  
8 conducts monitoring and sampling of the South Dade  
9 area around Turkey Point.

10 Today you may hear claims by an activist  
11 group opposed to nuclear power called the Tooth Fairy  
12 Project that Turkey Point is harming people in Miami-  
13 Dade County. Let me assure you that their claims are  
14 just not true. As a parent I understand that we all  
15 want to protect our children's health and we want  
16 answers when any child is suffering from cancer or any  
17 type of illness. The group organized against Turkey  
18 Point claims the answers for some types of cancer are  
19 found in the plant's operations. That is not the  
20 case.

21 I could not in good conscience work at a  
22 facility that could be harmful to any child. Having  
23 worked at Turkey Point for many years, I am convinced  
24 that the environment around our plant is safe for your  
25 children and mine. The group's claims have been

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1 repeatedly rejected by Federal and Safe Health  
2 Agencies as well as by leading scientists in the  
3 radiation protection field, some of which are in the  
4 audience here today.

5 For example, in 1990 the National Cancer  
6 Institute conducted an independent study of 62  
7 communities around the United States nuclear  
8 facilities that were in operation for at least ten  
9 years. The agency confirmed that there was no  
10 increased health risk of living in proximity to  
11 nuclear power plants.

12 The NRC has also appropriately addressed  
13 these claims in the Draft Supplemental Environmental  
14 Impact Statement and concluded the Tooth Fairy study  
15 shows no link to adverse health affects.

16 So bottom line, forget the fairy tale;  
17 Turkey Point is safe.

18 Another factor to consider is our ability  
19 to help meet Florida's energy needs. Turkey Point  
20 power can help sustain our economic growth and  
21 maintain our quality of life. Our plant is  
22 strategically located in the FPL generating system and  
23 Turkey Point is among the lowest cost producers of  
24 electricity in the FPL system, so it will help us keep

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1 our electric bills low. And that's good news for our  
2 customers.

3 From an environmental standpoint, Turkey  
4 Point remains a guardian of our natural resources. We  
5 use only about a tenth of the property for power  
6 production and most of our land providing a home to  
7 about seventeen threatened or endangered species. The  
8 endangered American crocodile has found a safe haven  
9 and a nesting ground in the plant cooling canals.  
10 This is one of the three areas in the country where  
11 the crocodile is living and indeed thriving.

12 We also placed over 14,000 acres of  
13 sensitive wetlands with permanent conservation where  
14 the lands there were stored and preserved in its  
15 natural condition. In addition, we can continue to  
16 produce clean electricity without air pollution or  
17 greenhouse gases.

18 Finally, what does Turkey Point mean to  
19 our community? We asked the neighbors and they told  
20 us that we're an important economic factor in this  
21 community, one that they want to see remain as a  
22 viable contributor. The payroll for around 800  
23 employees tax dollars, purchases and contributions to  
24 local United Way agencies help in this area.

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1           But perhaps more importantly is the role  
2           our people play in the community. Our employees are  
3           active in their churches, in scout organizations, PTA,  
4           little leagues and even local Government. As a  
5           testimony to our community role, many members of the  
6           local community spoke in support of Turkey Point  
7           during the December, 2000 public meetings here in this  
8           room.

9           In summary, I believe reviewing the  
10          licenses of Turkey Point Nuclear Power Plant is in the  
11          best interest of our community and in continuing to  
12          provide safe, clean, reliable and low cost electricity  
13          to our customers.

14          That's my professional opinion as Vice  
15          President of Turkey Point Nuclear Plant and my  
16          personal conviction as a parent and an active member  
17          of the community.

18          Now I'd like to turn it over to our  
19          license renewal project manager, Liz Thompson, to  
20          provide some additional details on FPL's license  
21          renewal efforts and the comments on the Draft  
22          Environmental Impact Statement.

23          MR. CAMERON: Okay. I think that the  
24          public are speaking and we're going to other people  
25          who signed up to speak and following on after Liz is

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1 done and after other people in the community. So  
2 everybody will get a chance to speak. I would just  
3 ask everybody to try to keep it to five minutes and we  
4 are going to hear from Dr. Brown and Dr. Sternglass,  
5 Mr. Oncavage, other members of the Sierra Club.

6 Liz, please.

7 MS. THOMPSON: Thank you. Good afternoon  
8 everyone. I would also like to thank the Nuclear  
9 Regulatory Commission and each of you here today for  
10 your time and involvement in the license renewal  
11 process. It's a pleasure to be here today to share  
12 some thoughts with you about the Supplemental  
13 Environmental Impact Statement for Turkey Point.

14 As Bob said, my name is Liz Thompson and  
15 I'm the project manager for the Turkey Point license  
16 renewal effort. I've worked at the site for about  
17 fourteen years and am personally involved in not only  
18 license renewal, but operations, maintenance,  
19 engineering. I have first-hand experience of the team  
20 work that has enabled the plant to become a top  
21 performer in its class and a viable candidate for  
22 license renewal.

23 License renewal was not a process that we  
24 entered into lightly. We realize we have a  
25 responsibility to the community in which we're

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1 located. In preparing our license renewal application  
2 we were extremely careful to insure that programs and  
3 procedures are in place to assure safe operations and  
4 that the plant is having a positive impact on the  
5 environment. That process is not something new. It's  
6 how we run our business every day.

7 The NRC has now evaluated the  
8 environmental aspects associated with our license  
9 renewal application. The Supplemental Environmental  
10 Impact Statement for the Turkey Point license renewal  
11 provides a thorough examination of the 92  
12 environmental issues addressed in the regulations.  
13 This is a very broad approach and it has been  
14 thoughtfully designed and is intended to cover a wide  
15 spectrum of considerations that need to be evaluated  
16 in renewing our licenses.

17 The Supplemental Environmental Impact  
18 Statement concludes that the environmental impact from  
19 operating Turkey Point for an additional twenty years  
20 will be small and less than the impacts of other  
21 energy sources. This conclusion is based on the  
22 detailed analysis of the impact areas. The analysis  
23 in the Supplemental Environmental Impact Statement  
24 also looked at replacing the two reactors with  
25 equivalent electricity producers, new nuclear

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1 reactors, oil or gas burning generators, even solar  
2 panels, and concluded these options would produce  
3 greater pollution and ecological impacts.

4 We have been told by our neighbors that  
5 clean energy is important to them and we believe  
6 Turkey Point provides that benefit.

7 But another reason I believe that Turkey  
8 Point should operate for an additional twenty years is  
9 to be able to continue the award winning conservation  
10 work that was initiated almost thirty years ago. I'm  
11 proud of the work we do to preserve and protect the  
12 environment. We believe in our responsibility to  
13 operate in harmony with the environment.

14 Turkey Point's unique location  
15 successfully combines modern technology with a strong  
16 environmental commitment. In recognition of our  
17 efforts in land preservation, FPL was presented the  
18 Edison Electric Institute Environmental Award for  
19 Turkey Point's land management work earlier this year,  
20 and the Greater Miami Chamber of Commerce  
21 Environmental Award in 2000, both recognizing FPL's  
22 efforts for preservation and education on the  
23 endangered American crocodile. These efforts have  
24 attracted world wide attention, being featured in  
25 National Geographic Magazine and on television CNN and

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1 the Discovery Channel. The preservation of the site  
2 and the species present there will continue during the  
3 renewed operating license period.

4           Aside from the very important  
5 environmental benefits of continued Turkey Point  
6 operations, license renewal is also important to  
7 meeting the energy needs of South Florida. Florida is  
8 growing approximately two percent per year and the  
9 electricity consumed per customer is also increasing.  
10 FPL must provide power plants to keep up with this  
11 growing demand and insure an ample supply of  
12 electricity. This means keeping solid performers like  
13 Turkey Point as a viable part of FPL's generation  
14 network, one that uses a diverse energy mix to insure  
15 that our customers, when they flip that switch, the  
16 electricity is there.

17           As Bob Hovey mentioned, there are many  
18 additional benefits Turkey Point provides to the  
19 community. Our neighbors have told us that taking  
20 away Turkey Point would have a big impact on the  
21 community, and we agree with that conclusion.

22           The Turkey Point employees want to remain  
23 a part of this community and they want to remain your  
24 neighbors. I believe extending the operations is more  
25 than renewing the license, it's about renewing our

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1 future in South Florida. We are committed to safely  
2 and reliably operate in the Turkey Point Power Plant  
3 long into the future to meet the energy needs of this  
4 area while protecting the environment.

5 Thank you.

6 MR. CAMERON: Okay, thank you, Liz. We're  
7 next going to hear from Dr. Jerry Brown and Dr. Ernest  
8 Sternglass. Can we get the view graph machine set up  
9 for them?

10 After Dr. Brown and Dr. -- well, Dr. Brown  
11 first and then we're going to have Dr. Sternglass.  
12 We'll then want to hear from Mr. Keaton of the State  
13 and we're going to try to fit someone in quickly if we  
14 can but we'll -- okay, we don't have to worry about  
15 that.

16 All right. This is Dr. Jerry Brown and  
17 he'll provide further information on what he's doing.

18 DR. BROWN: Good afternoon. We have an  
19 executive summary of our presentation here today and  
20 we'll pass it out to anyone who would like it.

21 My name is Dr. Jerry Brown. I'm a  
22 research associate with the Radiation and Public  
23 Health Project. I teach anthropology at the Florida  
24 International University. I've been there since it

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1 opened in 1972. I received my Ph.D. Degree from  
2 Cornell University.

3 In the mid '80's I served as an executive  
4 director for Business Executives for National  
5 Security, which was an organization formed by Fortune  
6 1000 executives including Ted Turner, Peter Grace of  
7 the Grace Company, Tom Watson of IBM, President of  
8 IBM. The purpose of that organization was several  
9 fold; to put the Pentagon on a business like basis, to  
10 reduce the risk of nuclear war and to change the  
11 relationship with the Soviet Union.

12 So I've been involved around radiation  
13 issues for some time.

14 The report that we have here today, of  
15 which there is an executive summary being circulated,  
16 we also have the full report. For anyone that would  
17 like it, please see us at the end of the presentation.

18 This report will also be shared with  
19 Florida Power and Light, with the Florida Department  
20 of Health, with the EPA and with other members of  
21 Congress who have responsibility both in the  
22 environmental and in the health area.

23 The principal author as you see here is  
24 Joseph Mangano, a epidemiologist and public health  
25 researcher. Jay Gould is a director of the project.

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1 He's a former Ph.D. economist and statistician from  
2 Chicago, University of Chicago, a former science  
3 advisor to the EPA under the Carter Administration.  
4 Dr. Ernest Sternglass who will be speaking soon is  
5 Professor of Radiation Physics at the University of  
6 Pittsburgh School of Medicine. Janet Sherman, M.D.,  
7 internist, toxicologist, former -- worked many years  
8 ago with the Atomic Energy Commission assessing health  
9 impacts of radiation.

10 The reason I take some time to point this  
11 out, and I've just met Mr. Hovey today in person and  
12 I've met him through the press, was just to maybe  
13 correct some mis-impressions that he may have had from  
14 our article.

15 Number one, we are not an activist group.  
16 We do not get involved in lobbying or policy. We are  
17 a research and public education group.

18 Number two, we are not an anti-nuclear  
19 group. We are an anti-cancer group and we want to get  
20 to the root of the increased levels of cancer and why  
21 we have this cancer epidemic in the United States that  
22 will strike forty percent of all Americans in their  
23 lifetime and why we have elevated levels of cancer  
24 here in South Florida.

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1           Number three, he indicated that there were  
2           -- this was a non-medical group, and there are a  
3           variety of medical as well as scientific professionals  
4           involved with our research.

5           I want to submit a report to the Nuclear  
6           Regulatory Commission as both a comment on the Turkey  
7           Point GEIS and also we believe that the data we're  
8           presenting is new and significant and has implications  
9           for all 43 of the utilities who have indicated  
10          specific reactors that they have an interest in re-  
11          licensing throughout the United States.

12          We understand, and I will go rather  
13          quickly now through the bullet points of the executive  
14          summary given the time limitation.

15          I'm on Page 3. The NRC requires that  
16          electric utilities measure emissions of radioactive  
17          chemical from nuclear reactors and levels of those  
18          chemicals in the air, water, soil and food. If these  
19          levels fall below Federal permissible levels, the NRC  
20          presumes there is no detectible health risk to  
21          residents living near reactors. That is what we see  
22          to be the serious flaw in the entire methodology of  
23          the Supplement Report. The NRC is not requiring nor  
24          has it successfully and thoroughly reviewed the -- not  
25          only our research, but the numerous references, the 60

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1 references that are in the report we're submitting.  
2 The issue here is that of looking at in-body levels of  
3 radiation as the true indicator of the state of health  
4 of the population.

5 The NRC electric utilities, including the  
6 Florida Department of Health, have not measured levels  
7 of strontium 90 in the bodies -- or other radioactive  
8 chemicals -- in the bodies of persons living near  
9 nuclear reactors. This includes the Florida  
10 Department of Health, which is currently looking into  
11 the serious cancer levels that exist in St. Lucie  
12 area. In their research protocol which we've  
13 reviewed, they've reviewed over 300 chemicals, but  
14 they have not reviewed a known carcinogen, radioactive  
15 strontium 90.

16 So this is the aspect of the research that  
17 we are trying to address here.

18 The NRC electrical utilities and Public  
19 Health Department have made no independent study of  
20 cancer in persons living near nuclear reactors from  
21 1957 to 1990. The study that was cited by the  
22 National Cancer Institute made a controversial  
23 conclusion that nuclear reactors did not affect local  
24 cancer rates, a result that would be expected based on  
25 the methodology used. What was the methodology? In

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1 virtually all of the control counties, there were  
2 counties that were right next to counties that had  
3 nuclear power plants, as if radiation stopped at the  
4 county border. This is a flawed study and it must be  
5 re-looked at and re-evaluated.

6 The Radiation and Public Health Project,  
7 known as the Tooth Fairy Project in the community,  
8 measures strontium 90 levels in baby teeth and effects  
9 on their bones. It is the first study to do in-body  
10 radioactivity of levels of persons living near nuclear  
11 power reactors and in more remote locations. One of  
12 the comments that the NRC made is that we do not have  
13 controls in the study. That is not true. There are  
14 several controls that go into the study. Proximity  
15 and distance from nuclear reactors is one control.  
16 The teeth of people who were born before and after a  
17 nuclear reactor opened is another control. And the  
18 opening and closing of nuclear reactors and the teeth  
19 of children that was collected around that is another  
20 control.

21 During the 1950's and 1960's, concern  
22 about increased strontium 90 levels in St. Louis baby  
23 teeth which corresponded to increased childhood cancer  
24 and leukemia rates were factors in President John F.  
25 Kennedy's decision, and Congress' decision, to ratify

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1 the 1963 Partial Test Ban Treaty, which ended not  
2 some, not a permissible level, but all atmospheric and  
3 all under water nuclear testing. And what we have  
4 found in our baby teeth study, both nationally and  
5 here in South Florida, is that the levels of strontium  
6 90 from the St. Louis study -- from practically non-  
7 detectable since strontium 90 is a man-made element  
8 only produced by nuclear weapons and nuclear reactors,  
9 to this level in 1963 when President Kennedy and  
10 Premier Khrushchev in the UK decided to stop bomb  
11 testing.

12 Various studies have indicated a projected  
13 decline of strontium 90 again to practically  
14 undetectable. This is the level of radioactive  
15 strontium 90 above the projected value that we have  
16 found in the teeth tested in Dade County to date.  
17 These are the average levels and these are the highest  
18 levels.

19 As a reference point, the baby teeth  
20 methodology is not a new one. It replicates a very  
21 significant earlier study that played an important  
22 role in American history and Dr. Sternglass was  
23 invited by the Kennedy White House to testify on the  
24 impact of those findings before the Joint Committee on  
25 Atomic Energy at that time.

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1           What is the reference base when we say the  
2 levels are equal to the 1950's or 1956? This was a  
3 time and a period in which the United States and the  
4 former Soviet Union tested the equivalent of 40,000  
5 Hiroshima bombs in the atmosphere according to data  
6 provided by the Natural Resources Defense Council.

7           The data on cancer rates in Southeast  
8 Florida. This is not our data. This is public health  
9 data from the data base of the SER Group, the  
10 Surveillance Epidemiological Report that was set into  
11 process by Richard Nixon when he launched the war on  
12 cancer. And so this data is not data that we have  
13 generated, but data that we have analyzed.

14           We have found that the childhood cancer  
15 rate in the five Southeastern Florida counties have  
16 risen to become one of the highest in the United  
17 States and suggests a link with the areas high  
18 strontium 90 levels.

19           We also found in this report that annual  
20 rises and decline in cancer incidents in Miami-Dade  
21 children under age five matched those in radiation  
22 detected in the local precipitation -- this is data  
23 emissions -- measured in rain by the EPA, and that  
24 chart is attached to our study.

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1                   Cancer in children under ten in Miami-Dade  
2                   and four other Southeastern Florida counties rose 35  
3                   percent from the early '80's to the late '90's, but it  
4                   declined by eight percent in all of the rest of the  
5                   State. This we think is significant. We argue and we  
6                   assert and we respectfully submit to the Nuclear  
7                   Regulatory Commission that the Generic Impact  
8                   Statement is flawed. There are no -- it says that the  
9                   baby teeth study does not present new information.  
10                  This is new and significant information and the first  
11                  study on the measure of in-body radioactivity,  
12                  specifically near nuclear power plants.

13                  The main thing, and again I'm trying to be  
14                  sensitive to the time here, is that the GEIS asserts  
15                  that the doubling in cancer in the past half century  
16                  is not due to any environmental cause other than  
17                  cigarette smoking, failing to cite the consideration  
18                  research which we've documented in this report that  
19                  links cancer and environmental toxins like radiation.

20                  The NRC in this report ignores the rise in  
21                  cancer rates among children, which also has doubled in  
22                  the period. The children do not smoke. The children  
23                  have not been exposed to long term medical X-rays, and  
24                  that is simply not addressed here.

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1           The larger GEIS does not mention the  
2 increased sensitivity of the fetus and the infant to  
3 radiation exposure, which was pointed out in the Beer  
4 5 Report through the National Academy of Sciences in  
5 1990, and that report concluded there is no safe, non-  
6 linear exposure to radiation.

7           How are we doing on time?

8           MR. CAMERON: Actually, we're pretty far  
9 over and I was going to ask you if you could just  
10 conclude and we could get Dr. Sternglass up. I think  
11 we had you for about ten minutes.

12          DR. BROWN: I'm very sorry.

13          MR. CAMERON: That's fine.

14          DR. BROWN: There are many issues raised  
15 in this report. I want to focus in conclusion on what  
16 we believe is the key one, and that is, do the NRC and  
17 Florida Power and Light make adequate measures of  
18 radiation dose to the public from Turkey Point  
19 emissions? The NRC says that they do and that the  
20 public is not affected.

21           Our view is that the NRC cannot and should  
22 not presume that Turkey Point emissions are harmless  
23 since it does not measure in-body levels of  
24 radioactive chemicals like strontium 90, which is also  
25 a market for other isotopes. In recent years

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1 strontium 90 measurements in milk near nuclear power  
2 plants were no longer required. These levels were  
3 significant. In 1976 milk from dairy farms near the  
4 Millstone Plant in Connecticut had the same strontium  
5 90 concentration as at the peak of atomic bomb  
6 testing.

7 We call for the postponement of a decision  
8 on this license application until the local health  
9 affects and studies impacting strontium 90 on local  
10 health affects are thoroughly evaluated.

11 Thank you for your time.

12 MR. CAMERON: Okay. Thank you, Dr. Brown.

13 Dr. Sternglass? And then we're going to  
14 go to Harlan Keaton from the State of Florida and then  
15 Dr. Dade Moeller. And we're going to continue on this  
16 issue and then we're going to go to Mark Oncavage.

17 Dr. Ernest Sternglass, University of  
18 Pittsburgh Medical School.

19 DR. STERNGLASS: Thank you very much.  
20 I'll be using some slides to give you some detail that  
21 you can see for yourself whether or not there has been  
22 any increase in strontium 90 in baby teeth  
23 or in cancer rates among children in the county and in  
24 the entire southeast part of Florida.

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1           The most important point that needs to be  
2           made is that the recognition that bomb fall-out  
3           produced childhood cancer is very old. This shows the  
4           -- can we get this focused? This shows a report by  
5           the Japanese Cancer Society from Dr. Sige (Phonetic),  
6           and you can see for yourself that the cancer rates  
7           jumped enormously during the time of nuclear testing,  
8           beginning shortly after 1945, typically a four to five  
9           year delay before these cancers showed, which is  
10          similar to what Dr. Ellis Stewart found in Oxford  
11          University in 1956-58, that children exposed during  
12          pregnancy generally develop tumors at twice the rate  
13          that other children did and it took only very small  
14          doses     of     radiation     to     do     that.

15  
16           I'm going to go through these slides very  
17          quickly in order just to have you see the nature of  
18          the data, and I have complete copies of these  
19          available for anyone who would like to see them in  
20          more detail.

21           This is what happened in this country. In  
22          Connecticut cancer rates were measured since 1935  
23          incidents, new cases, and that is shown by the dark  
24          line. And you can see the strontium 90 that was  
25          measured by the St. Louis group showed the same peak,

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1 and therefore this is a very strong relationship that  
2 was long ago established with regard to small levels  
3 of strontium 90 in the diet.

4 Now why did we go ahead and measure this  
5 in Long Island? That's because Long Island had a very  
6 large increase, 30 percent or so since 1950, in breast  
7 cancer. And so we got the teeth from 500 children by  
8 now, and this shows the relationship between the two;  
9 strontium 90 the dark line, cancer rates the other  
10 line. The cancer rates have been shifted three years  
11 because typically it takes three to five years for the  
12 childhood cancers to appear.

13 So in that sense, we are simply repeating  
14 what the St. Louis study did and now we can show you  
15 how close the relationship is. When we divided the  
16 St. Louis 500 -- I mean the teeth into 500 -- from 500  
17 children into components of four periods each, with  
18 close to 100 teeth in each one, we found a direct  
19 linear relationship for this range from only one pico-  
20 curies to one and a half picocuries strontium in the  
21 cancer increase rate of children under ten.

22 Now with this kind of data based on 500  
23 teeth, we repeated the story here in Dade County. And  
24 here we see the following interesting pattern. The  
25 last atmospheric test occurred in 1980 and there was

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1 a big peak, going from as low as one and a half to  
2 four and a half picocuries. Then there were large  
3 releases, both monitored and unmonitored, from the  
4 problems of the heat steam generator at Turkey Point  
5 and there was another peak. Then the steam generator  
6 was repaired, and what we have in effect found is that  
7 there was another peak when Chernobol arrived. And  
8 then when the Biscayne Aquifer was contaminated by all  
9 these build-up, we see a build-up in the base line.  
10 In other words, these peaks occurred on top of  
11 something else, and that's a very serious problem  
12 because when Hurricane Andrew came, even though the  
13 plant itself may have survived, what happened is  
14 apparently that much of the radioactivity in the  
15 canals and the stored area outside and the accumulated  
16 radioactive dust was blown up all over the county and  
17 in fact it reached other areas as well, because here  
18 we can take a look at -- these are by the way data  
19 obtained from the Dade County Cancer Incident Registry  
20 that registers cancer since 1982 -- and you see a  
21 striking similarity. Again, the cancers are not  
22 declining. They are growing among children and this  
23 is the zero to nine year group, and they come in  
24 spikes that are associated with known events that  
25 produce radioactivity into the environment.

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1           What we have found therefore is that we  
2 greatly underestimated the effect of strontium 90, and  
3 the reason is that we didn't know until 1968, some 25  
4 years after the beginning of the nuclear age, that a  
5 study done at the University of Oslo, a cancer  
6 hospital, that they took animals and gave them tiny  
7 amounts of strontium and they found a depression in  
8 the bone cellularity. That means the white cells, the  
9 policemen of the body were damaged. And that leads to  
10 increases in cancer of all types, infectious diseases  
11 and many other abnormalities related to the immune  
12 system.

13           But that was not known until many nuclear  
14 plants had already been designed, and believe me, I  
15 worked for fifteen years for the Westinghouse Electric  
16 Corporation as assistant, ended up as assistant to the  
17 vice president for research. We never would have  
18 imagined, could have imagined how serious the affect  
19 of tiny doses of strontium 90 could actually be.

20           But here we now see, here are two plants  
21 located in Florida, Palm Beach, Broward, Martin, St.  
22 Lucie, and they are all within 100 miles, so Palm  
23 Beach and Broward get it no matter which way the wind  
24 is blowing. And the tragedy is that when you let it

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1 go out towards the ocean, eventually it comes back  
2 with the ocean breeze.

3 And now let's take a look at a typical  
4 county, like for instance, Martin. And this by the  
5 way is five southeast Florida counties, Dade, Broward,  
6 Palm Beach, Martin, St. Lucie, and we see the same  
7 pattern that we see in Dade, with a big peak after the  
8 Hurricane Andrew which must have distributed  
9 radioactive debris all over the area. And we're  
10 talking about hundreds of children. We're talking  
11 about a total of about 1800 children that developed  
12 cancer during that period in the five county area, and  
13 the increase is 35 percent above what it should have  
14 been.

15 Now here is the Center for Disease  
16 Control, the wonder website, showed what happened in  
17 the nearby county, Martin. Often counties like this  
18 were used by the NIA as control counties. And you can  
19 see as compared to San Francisco, which declined, when  
20 in 1989 its reactor was shut down and there was an  
21 enormous improvement in cancer rates. But your  
22 county, and you can look it up on your internet,  
23 Martin increased like that from way below San  
24 Francisco to way above.

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1           If that is not a source for concern, then  
2 I wonder what the health department calls a reason for  
3 concern.

4           Now let's take a look at breast cancer.  
5 I think some of you in the audience may have relatives  
6 and friends who have developed it. This is again from  
7 the Center for Disease Control. You can download it  
8 on your computer, the wonder website. And you see  
9 that during the time of bomb testing in the 1980's,  
10 San Francisco exceeded the U.S. It was a hot bed for  
11 breast cancer that nobody understood. It went up to  
12 about 165 per hundred thousand in the age group over  
13 65 that developed most of the cancer. And you can see  
14 that an incredible decline took place by about half  
15 for which no other explanation has ever been advanced.

16           I would like to know what other cancer  
17 therapy there exists that we in our medical schools  
18 have failed to find.

19           MR. CAMERON: Dr. Sternglass, can you wrap  
20 for us, please?

21           DR. STERNGLOSS: This is it. This is the  
22 last graph, and I'm just in time.

23           This is again from the Center for Disease  
24 Control. Dade County white infant mortality --  
25 incidentally, black is almost twice as high. But you

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1 will see here that when the last of U.S. tests  
2 occurred there was a peak above the normal decline of  
3 46 percent per year that has been taking place since  
4 1935, except for the period of bomb testing.

5 Then the Chinese bomb test. Then the  
6 French bomb test. Then the start of Turkey Point  
7 which increased here 50 percent. But when it was  
8 repaired infant mortality declined. Then came the  
9 steam generator repair here, and then came Chernobol  
10 and it raised it again. And then Hurricane Andrew,  
11 still another small peak.

12 But what this means is of great concern to  
13 all of us because for every child that develops cancer  
14 there are ten to a hundred that die of other causes in  
15 the first year of life and many are damaged who  
16 survive because of our ability to keep tiny babies  
17 alive. It means that we are endangering the welfare  
18 of the entire nation by ignoring this kind of data.

19 Thank you.

20 MR. CAMERON: Thank you very much, Dr.  
21 Sternglass. And Dr. Sternglass' graphs are available  
22 for people. Thank you. Thank you very much.

23 Can we go to Harlan Keaton and then we'll  
24 go to Dr. Dade Moeller. Harlan, would you like to  
25 join us up here?

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1           MR. KEATON: I'm going to make this as  
2 short as I can because I know everybody's ready to go  
3 get something to eat, or get something anyway.

4           Basically, I am the representative for the  
5 State that goes out and takes the samples and the  
6 analysis -- does the analysis for what we've been  
7 talking about around the nuclear power plant. We do  
8 analysis around -- Florida has five nuclear power  
9 plants at three sites other than this one.

10           In our testing program, our program is  
11 audited by the EPA. We have the NRC inspectors that  
12 go out with us. We have a tremendous quality  
13 assurance program that we go through to make sure that  
14 our testing is correct. All of our standards are  
15 traceable. All I'm trying to do is let you know that  
16 what we do out there, we feel is accurate.

17           From that standpoint, we have a tremendous  
18 surveillance program around the nuclear power plant  
19 where we pick up things like gamma radiation, air,  
20 water, raw leaf vegetation, fish and crustacean,  
21 sediment and food crops. We take these back to our  
22 lab and analyze them on a quarterly basis and then we  
23 do send a report, after the four quarters is done,  
24 into an annual report, and that goes to the NRC for  
25 their review.

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1           We have to date not found anything in the  
2 environment that would either increase or affect or  
3 harm the citizens of the State of Florida, at any one  
4 of the plants. We found no environmental levels of  
5 build-up and concentration of materials. I know  
6 you've heard about testing for strontium 90. Well,  
7 yes, everybody used to test for strontium 90 and it  
8 wasn't found very much, but just because you don't  
9 test for strontium 90 doesn't mean you can't identify  
10 it. Strontium 90 is a beta emitter and we check  
11 everything for beta emissions. If you don't see  
12 elevated levels, there's not going to be any strontium  
13 there.

14           The next point we do is, we have an  
15 environment epidemiology group that goes and looks at  
16 cancer throughout the State. Now I'm not a part of  
17 that group, but they just finished a report today  
18 which was presented to the NRC and I'm sure that the  
19 group of scientists, the Fairy group, they have it  
20 now, and I would like to read the summary of that, and  
21 I don't mean to demean -- you know, I'm not trying to  
22 make light of that. I didn't remember the name.

23           This report is available. It's out in the  
24 room that we have out there. Other copies will also

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1 be available later. If I can turn to the summary  
2 page. All right.

3 In summary, and this is the  
4 epidemiological group in Tallahassee, they've gone  
5 over the same data that Dr. Sternglass and his group  
6 have. This is their conclusion.

7 "In summary, we reconstructed the  
8 calculations made by the RPHP, using the same data for  
9 which they base their claim. RPHP claims that there  
10 are striking increases in cancer rates in Southeastern  
11 Florida counties and attributes to these increases to  
12 radiation exposure from nuclear reactors. Using this  
13 data to reconstruct calculations and graphing our  
14 findings, we have not been able to identify unusually  
15 high rates of cancers in these counties. As we would  
16 expect, just by chance some county rates appear higher  
17 than state and national trends and some appear lower.  
18 These rates fluctuate from year to year and in some  
19 situations large fluctuations occur with a small  
20 number of cases and small underlying county  
21 populations. One has to use careful scientific and  
22 objective evaluation of these fluctuations to avoid  
23 mis-interpretation. Careful analysis and observation  
24 of the data presented here does not support the  
25 alarming claims made by RPHP regarding cancer

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1 mortality rates and trends in Southeastern Florida  
2 counties when compared to the rest of the State of  
3 Florida and the nation."

4 In conclusion, I'd like to read the cover  
5 letter of this that came from Dr. David Johnson.

6 "Much concern has been related to us about  
7 statements made by Radiation and Public Health Project  
8 Incorporated on the March 28, 2001 announcement. RPHP  
9 has implied that there are large increases over time  
10 in cancer rates in Southeastern Florida counties and  
11 they attribute these increases to radiation exposure  
12 from the Turkey Point and St. Lucie power plants. The  
13 Florida Department and Health takes these assertions  
14 seriously and have reviewed the data used by RPHP  
15 regarding cancer rates of Southeast Florida. Using  
16 this data to reconstruct calculations and graphing the  
17 results, we have not been able to identify any  
18 unusually high rate of cancers in these counties.  
19 Attached is the Bureau of Environment Epidemiology  
20 report addressing the data and the RPHP findings.  
21 Should you need any further clarification, please feel  
22 free to contact me at 850-245-4299. David Johnson,  
23 M.D., Master of Science, Bureau of Environmental  
24 Epidemiology."

25 That's all I have to say.

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1 MR. CAMERON: Thank you very much. Next  
2 is Dade Moeller.

3 MR. MOELLER: My name is Dade Moeller.  
4 You may have heard the name Dade before. I was born  
5 and reared in the State of Florida. I went here to  
6 public schools for twelve years.

7 I'd like to begin though with an apology.  
8 Had I known or had any inkling of the fiasco of the  
9 counting of the ballots, you know, during the past  
10 Presidential Election, I never would have let them  
11 name this county after me.

12 Now you could say why am I here? Well,  
13 I've spent my entire career in the field of radiation  
14 protection and I was so incensed to learn of the Tooth  
15 Fairy Project and to be able to read that project and  
16 the information that was put out that I -- I'm a  
17 senior citizen, so I went to the airport and I bought  
18 myself a ticket and I came down here because I wanted  
19 to share some truth with you. And as I go along I  
20 will cite back some references to my own career so  
21 you'll understand who I am.

22 My time is limited. Let me get right to  
23 the bottom line.

24 The Tooth Fairy Project is exactly what  
25 the name implies; it's a fairy tale. The report is

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1 unadulterated gobbely-goop and it is one of the worst  
2 examples of junk science that I have ever read in my  
3 life. There are newspapers reporters here; please  
4 don't mis-quote me, because I meant exactly what I  
5 said.

6 Now what is the basis for my statement?  
7 Well first of all you've seen these curves and all  
8 that was just put up and they quote a number of  
9 picocuries in the teeth. Did you see any uncertainty,  
10 markings on those numbers? No, they're given to you  
11 as precise numbers. Well in many cases the  
12 uncertainty is far larger than the number itself and  
13 they do not provide that to you. What they need to do  
14 is go take Statistics 101 and in that they tell you  
15 how to calculate the uncertainty.

16 The second thing that they do is they only  
17 give you picocuries. Where's the dose? Any  
18 toxicologist will tell you that the dose makes the  
19 poison and if they had calculated the doses, which I  
20 did, that would result in one or two picocuries of  
21 strontium 90 per gram in the teeth, they'd find that  
22 the dose each year is about comparable, in fact it's  
23 less, than the dose that you would receive in flying  
24 from Florida to California due to cosmic radiation on  
25 the airplane.

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1           Now if they're really interested in  
2 reducing cancer and if they really believe these  
3 little small doses are causing it, go to Miami  
4 International Airport and every time a plane is listed  
5 as going to California, go up and warn the passengers,  
6 don't fly to California because it's going to cause  
7 cancer.

8           What's the third thing? He said we've  
9 analyzed 500 teeth. He said if we can get 1000 teeth  
10 in Dade County we'll have it made. That will provide  
11 clinical evidence that there's a relationship between  
12 the picocuries of strontium 90 and cancer.

13           Well, they need in this case to go take a  
14 course Epidemiology 101. Epidemiology does not tell  
15 you that this agent caused this affect. All that  
16 epidemiology can do is tell you a relationship, a  
17 possible correlation, between something in the  
18 environment and some ill affect. And furthermore, I  
19 went ahead and calculated it out and for the dose  
20 levels we're talking about you would have to follow  
21 more than a million people for more than a hundred  
22 years to determine if there was any correlation.

23           Now what are my credentials for having  
24 made these statements? Well, I worked for the U.S.  
25 Public Health Service for eighteen years. What did I

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1 do? I worked as a laboratory chemist at the Oak Ridge  
2 National Laboratory, the radio-chemistry lab, from  
3 1956 to 1957.

4 What else did I do? I directed the  
5 Northeast Radiological Health Laboratory in  
6 Massachusetts for five years. And what did we do? We  
7 monitored strontium 90 in children. We got bones from  
8 accident victims at hospitals and we did monitoring  
9 for those fourteen states.

10 In addition, I directed the Public Health  
11 Radiation Protection Training Program for five years,  
12 so I think perhaps I know just a little bit about the  
13 subject.

14 Furthermore, I went from there to Harvard.  
15 For twelve years I was chairman of the Department of  
16 Environmental Sciences. For my last ten years there  
17 I was Associate Dean of the Harvard School of Public  
18 Health. I think that shows something about my  
19 credentials.

20 Now let's just look at some of their  
21 claims. The compound all of this gobbely-goop with  
22 distortions. Let me give you a few.

23 They said years ago, increase in breast  
24 cancer and it's due to nuclear plants. Well, in  
25 Minnesota -- well, we just heard what the Florida

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1 Department of Public Health just said. The Minnesota  
2 Department of Public Health checked their information.  
3 What did they do? It said they distort the data.

4 If a county didn't have enough breast  
5 cancer, suddenly it was moved away from the nuclear  
6 power plant. If they found the county with a high  
7 breast cancer rate they moved it in closer to the  
8 nuclear power plant. I wondered which is easier, move  
9 the counties or move the plants? There must be some  
10 reason for doing it.

11 The Millstone Plant. At the Millstone  
12 Plant they charge that the strontium 90 in the milk  
13 nearby was due to releases from the Millstone Plant.  
14 Who went in there and proved them wrong? The  
15 administrator of the U.S. Environmental Protection  
16 Agency. He had his crew go in and sample the  
17 strontium 90 and determine its source. There's  
18 nothing complicated by this. And they would never do  
19 it here around Turkey Point. If you went into the  
20 environment here and determined the source of that  
21 strontium 90, and you can do it just like you do with  
22 DNA today, you know, to capture a person who murdered  
23 someone years ago, the same processes are available  
24 for strontium 90. And in Connecticut -- they  
25 mentioned Connecticut earlier today -- they tested it

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1 and strontium 90 was totally from fall-out. It was  
2 not at all from those nuclear plants.

3 And then he mentioned the National Cancer  
4 Institute. And in that they challenge the Sternglass  
5 conclusion that breast cancer was caused by nuclear  
6 power plants, and in this book, if you read their  
7 material, they're always telling you, read the book  
8 The Enemy Within, you know, come buy my book The Enemy  
9 Within. Well, if you read that book it says in there,  
10 in a secret memo the National Cancer Institute said  
11 all of their calculations were correct. And then they  
12 have an appendix in the book. So I flipped to the  
13 appendix. I want to find that wonderful memo. Well,  
14 it wasn't in the appendix. So why if it endorsed  
15 their work, it's the first time it ever happened, if  
16 it did, for a long time, finally it's been endorsed,  
17 why don't they show it?

18 Well, I know the man who wrote the memo,  
19 Charles Land, Dr. Charles Land. He's an  
20 epidemiologist. And I called Charles and I said,  
21 "What's the scoop here? Did you really endorse it."

22 And he said, "In that memo they can add  
23 one and one and get two, and they can multiply two  
24 times two and get four, but their conclusions were

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1 totally wrong because in-put data was wrong and  
2 everything about the analysis was wrong."

3 Now am I the only person in the world  
4 that's read this? In 1971, one of the first times I  
5 met Dr. Sternglass, and it was at the annual meeting  
6 of the Health Physics Society in New York City. And  
7 it had never happened in the history of the Society,  
8 every ex-president, every living ex-president of that  
9 Society, signed a statement saying that Sternglass and  
10 his crew did not know what they were talking about.  
11 How do I know that? I was present in the Society and  
12 I appeared before the T.V. cameras and I presented the  
13 statement.

14 If you or I had said a statement, if you  
15 said to me, "Dade, you're wrong on your study," I  
16 would go correct it. Not them. They have no shame  
17 whatsoever. No shame whatsoever.

18 The National Academy of Sciences. I was  
19 on the committee that reviewed the relationship  
20 between the doses from radiation and health affects.  
21 Well, we thought out of courtesy, let's have Dr.  
22 Sternglass appear. He appeared and he made all the  
23 claims. He hadn't changed one iota. They're the same  
24 old claims he's always made. And he made those claims  
25 and we said, "Well, sir, where are the data?"

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1                   And he said, "Well, I'll give you the  
2 data."

3                   Well, twenty years later we've never  
4 gotten the data. And in their report they stated that  
5 again, he did not know what he was talking about.

6                   Let me wrap it up by saying he violates  
7 every principal of good science in his work. Don't be  
8 taken in by his comments. Check his credentials. If  
9 you have a leak in your kitchen faucet do you call an  
10 anthropologist or physicist to come repair it? No,  
11 you get a licensed plumber. If your spouse is sick or  
12 you're sick or your children are sick, you go to a  
13 medical specialist, and what do you seek? If it's a  
14 real serious illness you seek a Board Certified  
15 medical doctor.

16                   Let's ask, are they certified? There are  
17 groups, there are boards that certify you for rad  
18 protection, there are boards that certify you in  
19 environmental health. I'm certified both in radiation  
20 protection and in environmental health. I can answer.  
21 I looked just before I came down at the American Board  
22 of Health and none of their names are in there.

23                   Thank you for your time. It's been a  
24 pleasure to return to my home state.

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1 MR. CAMERON: Thank you very much, Dr.  
2 Moeller, and --

3 DR. STERNGLOSS: I might have one minute  
4 to answer these terrible charges?

5 I would like to read --

6 MR. CAMERON: Dr. Sternglass, I'm going to  
7 give you -- in light of the nature of what was said,  
8 I'm going to give you one minute to do that, and  
9 please, we have to move on.

10 We're going to give him a chance to do it.  
11 Go ahead, Dr. Sternglass. Go ahead.

12 DR. STERNGLOSS: I'm reading from an  
13 article from Health Physics. It's Developments,  
14 Successes, Failures and Eccentricities by Dr. Carl D.  
15 Morgan, Ph.D., who founded the Health Physics Society  
16 of which Professor Moeller was at one time a  
17 president.

18 And this is what he says. I'll just read  
19 this paragraph.

20 "It was a great disappointment to me to  
21 see the change in Health Physics, an organization of  
22 which I have been a principal organizer. I was the  
23 first president of the Health Physics Society and I  
24 believed then and until about 1975 it to be a  
25 professional and scientific organization to protect

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1 people from exposure to ionizing radiation. Now it  
2 became clear that this was no longer the case. Health  
3 physicists, at least in the U.S., refuse to bite the  
4 hand that feeds them, the Department of Energy. It  
5 saddens me to say that this Society for whose growth  
6 and development I once worked so hard, now is  
7 demonstrating that its primary purpose is not to  
8 protect the employer or employee or the members of the  
9 neighboring public, but to protect the company that  
10 signs the paychecks. A few years earlier Dr. Dade W.  
11 Moeller, the president of the Health Physics Society,  
12 in its presidential message, urged health physicists,  
13 speak out and make known our position on such issues  
14 as nuclear power safety and radiation protection  
15 guides and let's put our mouth where our money is."

16 Thank you.

17 MR. CAMERON: All right. We took a little  
18 bit longer on this particular issue because of its  
19 importance. I think that the NRC has heard a lot of  
20 information on it, pro and con, and I apologize for  
21 our running late and thank you for your patience.  
22 We're going to put on a few people from the Sierra  
23 Club, beginning with Mark Oncavage, and we're going to  
24 go to some people from United Way and the Chamber of  
25 Commerce.

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1           Let's go to Mark Oncavage and then we'll  
2 go to Barbara -- is it Barbara Lang? And Frank Pitz  
3 and also Diane Jacobs who we heard from today.

4           Go ahead, Mark.

5           MR. ONCAVAGE: Thank you.

6           The Miami group of the Sierra Club is  
7 calling for safety hearings concerning the license  
8 renewal of Turkey Point nuclear reactors. The Miami  
9 group also calls for an Environmental Impact  
10 Statement that studies site specific health and safety  
11 issues.

12           This past October when Florida Power and  
13 Light applied for license renewal, I petitioned the  
14 United States, the Nuclear Regulatory Commission, for  
15 safety hearings. I quoted a study of spent fuel  
16 consequences by Brookhaven National Laboratories, this  
17 one right here, that was commissioned by the Nuclear  
18 Regulatory Commission. If there was an accident in  
19 the spent fuel pool and the cooling water was drained,  
20 the spent fuel would heat up and set itself on fire.

21           The study, I believe, only accounted for  
22 one decommissioned reactor with forty years of spent  
23 fuel on site. Turkey Point has a combined fifty-seven  
24 years of spent fuel with more on the way.

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1           The consequences for this accident of a  
2 generic reactor range from 53,800 latent fatalities to  
3 143,000 latent fatalities, and permanently  
4 contaminated land estimates range from 869 square  
5 miles to 2,790 square miles.

6           Eight months prior to Florida Power and  
7 Light's application for renewal, I asked the Nuclear  
8 Regulatory Commission for their safety studies  
9 relating to the development of the Homestead Air Base  
10 and the commercial airport five miles from Turkey  
11 Point. They sent me two studies written by Florida  
12 Power and Light. In June, 2000 the Nuclear Regulatory  
13 Commission issued a safety assessment saying  
14 commercial airport development was safe, but also  
15 said, quote, "it should be noted however that the  
16 margin between the estimated aircraft crash frequency  
17 and the acceptance guidelines of SRP 3.5.1.6 is  
18 relatively small."

19           I asked the NRC for a formula assumption  
20 data and line by line calculation so independent  
21 experts could verify the conclusions. The NRC denied  
22 my request.

23           Here's what I asked and here's what looked  
24 wrong. The NRC is responsible for public safety, but  
25 the NRC's formula wasn't used. It was done using

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1 Department of Energy calculations, but the Department  
2 of Energy has no responsibility for public safety as  
3 the NRC does.

4 Bird air strike rates were under-valued.  
5 State averages and national averages hardly compared  
6 to the birds flying around Biscayne National Park and  
7 Everglades National Park.

8 Caribbean, Central American and South  
9 American general aviation rates were totally ignored.

10 When the formula asked for the height of  
11 the structures to calculate crash probabilities, the  
12 400 foot tall smoke stacks mysteriously disappeared  
13 from the calculations.

14 All this air crash safety information  
15 should be in the Generic Environmental Impact  
16 Statement and the site specific Environmental Impact  
17 Statement, but it is not.

18 In January of this year an Atomic Safety  
19 and Licensing Board met to hear my petition arguments.  
20 Administrative Judge Thomas Moore, asked FP&L lawyer  
21 and the NRC lawyers to show him in the Generic EIS  
22 where air crashes into spent fuel pools have been  
23 studied. They had no answer. He asked them, "Where  
24 in this GEIS is the safety study for spent fuel pool

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1 damage caused by hurricanes?" They still had no  
2 answer.

3 These embarrassing moments did not help my  
4 cause because my safety -- my petition for safety  
5 hearings were still denied. My petition for these  
6 same hearings is on appeal to the NRC Commissioners.

7 Meanwhile, my Freedom of Information Act  
8 request finally got answered. I received a letter  
9 from Katherine Barber, counsel for the NRC staff, and  
10 I quote, "Ms. Reed states in her response that the  
11 calculation you referred to was performed by Florida  
12 Power and Light and consequently that the NRC does not  
13 possess the information you requested," end of quote.

14  
15 This means that the NRC told the Air Force  
16 it was safe, having never seen the data, assumptions  
17 or line by line calculations. I assume they have seen  
18 the formula.

19 This abandonment of responsibility by the  
20 NRC did not sit well with me. I wrote a letter to  
21 George Mulley, Jr. of the NRC's Inspector General  
22 Office. My complaints were: One, isn't there a legal  
23 requirement for the NRC, not the licensee, to provide  
24 a safety evaluation for a final EIS?

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1                   Two, how can the NRC ignore its own  
2 standard review plan?

3                   Three, how can the NRC insure public  
4 health and safety and approve airport development when  
5 it doesn't possess all the data and assumptions that  
6 were used in the calculations and cannot verify the  
7 licensee's conclusions?

8                   Four, how can a citizen concerned for its  
9 own safety get information that's exclusively held by  
10 the licensee?

11                   Five, shouldn't the lead agency, the Air  
12 Force, be told that there are major safety  
13 discrepancies with the NRC methodology concerning the  
14 closeness of the proposed commercial airport to the  
15 nuclear plant?

16                   Six, if the licensee, which is a large  
17 land holder in the area, is the only entity with all  
18 of the safety-related information, how can the NRC be  
19 sure there is no conflict of interest? Developing  
20 land near a new commercial airport could be an  
21 extremely lucrative enterprise.

22                   Seven, another conflict of interest may  
23 arise if the licensee thinks that a negative safety  
24 assessment would damage its chances of obtaining a  
25 license renewal.

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1 I have never received a response to this  
2 letter from the NRC's Inspector General. I do hope  
3 that the NRC officials and the Florida Power and Light  
4 officials will reconsider their opposition to holding  
5 safety hearings on the license renewal for Turkey  
6 Point.

7 Thank you.

8 MR. CAMERON: Thank you very much, Mark.

9 Let's go to Diane Jacobs and then to Frank  
10 Pitz and then we'll go to some other people and  
11 hopefully we'll get you all in.

12 MS. JACOBS: My name is Diane Jacobs. I  
13 am a member of the Sierra Club, but also I'm a  
14 resident of Miami-Dade County for over fifty years.

15 In the GEIS Supplement filed, specifically  
16 Section 4.7.1, the statement for Turkey Point  
17 criticizes the baby teeth study for not performing  
18 environmental testing for strontium 89. We must  
19 realize how inconclusive such testing would be. With  
20 a half life of 60.5 days, much of this radioactivity  
21 would decay while this chemical sits in the rad-waste  
22 hold-up tank.

23 More of the activity would decay as it  
24 gets released, deposited and absorbed in the  
25 environment. More activity would be lost as it is

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1 collected and transported to an independent  
2 laboratory. And even more of the activity would be  
3 lost as it sits in the lab awaiting testing.

4 Much more reasonable and accurate would be  
5 for the NRC to, number one, monitor all gasses and  
6 liquid effluent for strontium 90; two, put monitors in  
7 the places where the unplanned, unmeasured  
8 radioactivity gets released to the environment; three,  
9 have random samples of food sources measured for  
10 strontium 90, such as local vegetables, fish, blue  
11 claw crab, Florida lobster, local milk and local  
12 drinking water; four, publish the NRC's own  
13 measurements and strontium 90 levels in baby teeth;  
14 five, correlate all the listed monitoring procedures  
15 and cancer statistics to accurately find out if or if  
16 not there's a significant relation between nuclear  
17 plant operations enhancer.

18 The methodology presently used by the NRC  
19 is to calculate cancers only by using what comes out  
20 of the stack, and this appears to be the weakest  
21 method you can possibly use. Whereas the correlation  
22 between strontium 90 levels actually found in human  
23 bodies and cancer rates seems to be the most reliable  
24 method.

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1                   The     Generic     Environmental     Impact  
2     Statement published in 1996 is obsolete in light of  
3     much more recent study. I believe the NRC should  
4     postpone its decision on extending the license of  
5     Turkey Point and all other reactors until it has  
6     thoroughly evaluated all available information,  
7     including recent reports and significant research in  
8     progress on nuclear reactor emissions and public  
9     health.

10                   Thank you.

11                   MR. CAMERON: Thank you very much, Diane.

12                   Next, let's go to Frank Pitz.

13                   MR. PITZ: Frank Pitz with the Broward  
14     County Sierra Club. And I want to join Mark in that  
15     request to call for safety hearings.

16                   Upon the global environment in health we  
17     have a monster waiting to be unleashed and I'm talking  
18     about 400 million metric tons of spent nuclear fuel,  
19     which is festering like a boil on the face of  
20     humanity.

21                   This poses a danger for over a half a  
22     million years and no one knows what to do with it or  
23     how to contain it. It is certainly not out of sight  
24     out of mind, so we cannot ignore it and there's not  
25     something tucked away in the depths of the closet so

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1 that we forget it. It is here. It is real and it is  
2 extremely dangerous to humanity.

3 In addition to the day to day adverse  
4 health affects posed by nuclear power, we also have  
5 this gargoyle hanging over our heads waiting to be  
6 unleashed.

7 We are here today to talk about  
8 relicensing a twenty-nine year old nuclear power  
9 plant, a renewal that isn't even up for another ten to  
10 twelve years. When the current renewal is up for  
11 review this plant will be forty years old. Longevity  
12 in humans is admirable, longevity in nuclear power  
13 plants is hazardous.

14 Add this increase in plant life span to  
15 the present day to day perils associated with  
16 radioactivity release from it and we have a ticking  
17 time bomb right here in South Florida.

18 Why the rush to relicense? Why not safety  
19 hearings?

20 The current operating permit does not  
21 expire for ten to twelve years. Why can't we wait  
22 until then? There certainly is not a pressing need to  
23 go through this process at this time unless of course  
24 it is political expediency.

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1           These aging reactors pose more of a threat  
2 to civilization than all of the supposed missiles that  
3 President Bush envisions while he lies sleeping in his  
4 bed.

5           The change of billions of dollars to  
6 expend to build a missile defense system would best be  
7 spent on sustainable energy programs which would wean  
8 us from causal fuel, nuclear fuel and consumption as  
9 well as the radioactive nightmare of nuclear power.

10           Leave this license in place until its  
11 original expiration date and then come back to the  
12 people and talk about renewal. For the sake of  
13 political opportunism you would further endanger the  
14 health of residents of South Florida. I say no to  
15 relicensing at this time.

16           Thank you.

17           MR. CAMERON: Thank you, Frank.

18           Let's go next to Mary Finland and then  
19 Mary Donworth and then Dave Friedrichs. Mary Finland  
20 from the Homestead Chamber of Commerce, is she still  
21 with us in the room?

22           Okay, how about Mary Donworth?

23           MS. DONWORTH: Good afternoon. My name is  
24 Mary Donworth. I am the vice president of Agency  
25 Relations and Fund Distributions at United Way of

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1 Miami-Dade and I have worked at United Way for eleven  
2 years.

3 I'm here obviously not to talk about  
4 environmental issues or safety, but to talk about the  
5 partnership between United Way and FPL's Turkey Point  
6 in meeting community needs.

7 In addition to meeting the energy needs in  
8 our community, Florida Power and Light, the IBEW and  
9 its employees raise over a million dollars for  
10 community needs in Miami-Dade County. Turkey Point  
11 itself employees contribute over \$150,000.00.

12 What does that mean in terms of services?  
13 It means quality care and education programs, through  
14 programs like the YMCA right here, the Bretherens  
15 Christian Association. It means food for the hungry  
16 at the Homestead food kitchen. It means therapeutic  
17 programs for developmentally disabled children and at  
18 the Association for Retarded Citizens.

19 In addition, United Way also encourages  
20 people in the community to step up to what we call the  
21 leadership circle. Those are people who give  
22 \$1,000.00 or more to United Way for health and human  
23 services. Turkey Point itself has 62 leadership  
24 givers which is a tremendous commitment.

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1           In addition to the very, very significant  
2 report, the financial contributions, FPL, the IBEW and  
3 its employees contribute thousands of hours of  
4 volunteer services in the community, which is  
5 tremendous.

6           In conclusion, I just want to say that  
7 United Way is extremely proud of its partnership with  
8 FPL in providing services for those in need in our  
9 community.

10           Thank you.

11           MR. CAMERON: Thank you very much, Mary.

12           Let's go to Dave Friedrichs from the Dade  
13 County Farm Bureau.

14           MR. FRIEDRICHS: Good evening. My name is  
15 David Friedrichs. I'm executive director of the Dade  
16 County Farm Bureau, representing a membership of 3,064  
17 members in Dade County.

18           The Dade County Farm Bureau stands  
19 unanimously in support of Florida Power and Light's  
20 relicensing efforts for their Turkey Point Plant.

21           In addition to the many other  
22 organizations and individuals here this afternoon who  
23 have cited to you many different ways in which they  
24 actively support the community and are a part of the  
25 community, which they are, they also actively support

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1 and help and aid and assist in every way possible  
2 agriculture in Dade County.

3           Despite our loss of revenue sources from  
4 other areas and loss of the airport and the Air Force  
5 and all that sort of stuff, agriculture still is the  
6 main engine of Dade County, Florida, and we find no  
7 reason not to support, after due consideration of  
8 presentations both from FPL and from other people not  
9 in favor of FPL's relicensing, we find no reason not  
10 to support them.

11           On a personal note, I have listened to,  
12 this afternoon, a lot of various presentations from  
13 the scientific community, obviously pros and cons.  
14 These are naive, average American individuals. I have  
15 a barometer that I go by. I'm not attempting to be  
16 funny, but I'm very serious.

17           When I tell you that I don't wake up every  
18 morning to see the Miami Herald screaming in the  
19 biggest headlines it's possible that I'm going to die  
20 most any minute from Florida Power and Light's  
21 presence in Turkey Point, I have a little problem  
22 believing that if that were true they would be letting  
23 me know it on a daily basis.

24           Thank you.

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1 MR. CAMERON: Okay, thank you, Mr.  
2 Friedrichs.

3 Let's go to Mr. Velazquez.

4 MR. VELAZQUEZ: Thank you for the  
5 opportunity. My name is Arnold Velazquez. I'm a  
6 resident of Miami-Dade County since 1960.

7 I'd like to start by thanking Mr. Brown  
8 because he woke me up yesterday morning when I read  
9 the article in the paper. That was the catalyst that  
10 made me come here today and spend five hours listening  
11 so I could speak my mind.

12 Just aside, I was looking at a  
13 presentation of Dr. Sternglass, and I just came to the  
14 realization that the Cuban immigration and the Haitian  
15 immigration have a strong relationship to the peak  
16 that he shows in there. So I have a hunch that we  
17 could infer that the Cubans and the Haitians are  
18 contributors to whatever things were happening.  
19 That's statistics for you.

20 I'm a graduate, electro-mechanical  
21 engineer from the University of Miami. I have a  
22 Master's in Industrial Engineering, and I'm a navy  
23 veteran, electrician, ship electrician. I worked  
24 twenty-one years for Florida Power and Light. In 1991  
25 we decide to part company. Still, it's a good

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1 company. Still a good neighbor. I'm proud to my  
2 association with the company, and today I have no  
3 restraints to speak my mind.

4 Before I was accused, well, you get your  
5 paycheck from Florida Power and Light. Today that's  
6 not the case. Today I can speak out my mind. And let  
7 me tell you, nuclear energy is one of the most  
8 reliable source of energy that we have today.

9 If we're going to look at coal with the  
10 same scrutiny that we hold nuclear power plants, we  
11 would have a long time ago shut down the coal mines in  
12 Kentucky and West Virginia. Black lung is real. We  
13 see people today, after all the improvements made in  
14 coal plants, and I'm not indicting the coal industry,  
15 please. I'm making a point.

16 Everything has a price. If we would look  
17 at the vaccine used for polio and we see that there is  
18 a small number of children that die from vaccinations  
19 every year. That mean are we going to stop  
20 vaccinating the rest of the population because  
21 unfortunately some children react adversely to the  
22 vaccination? No.

23 You could find a reason to shut down  
24 Turkey Point tomorrow. Would that serve the purpose?

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1 Would that be in the best interest of the community?

2 No.

3 If we look at the airline industry, we  
4 would still be looking. In the 1980's if the trains  
5 were to come by towns were received the way that we  
6 receive some of the power plants today, there would be  
7 no railroads in this country. People will be against  
8 the railroad, because of the pollution, because of the  
9 noise.

10 So you have to look and weigh what are the  
11 benefits and what are the cons against anything you do  
12 in life, and by far nuclear power is the most reliable  
13 source of energy that we have today. Doesn't  
14 contribute to the greenhouse effect. Doesn't pollute?

15 If anyone wants to go and see a nice  
16 family of manatees, you can go to any of the discharge  
17 canals in power plants and you're going to see the  
18 family of manatees, especially in the winter months.  
19 They go there because it's warm. Manatees know  
20 better.

21 So again, there are pros and cons, and I  
22 believe that nuclear power far out-weighs the benefits  
23 that we derive from it and the proffers of organizing  
24 a committee of private citizens, because I think there  
25 is a lot of mis-information being pumped into the

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1 public today. This article here is one example of  
2 that. This is a crying shame that people will lend  
3 themselves to these kind of mis-information and scare  
4 tactics. This is not fair to the public. It's not  
5 fair to our community and I would like to see them  
6 pack and go somewhere else and go ahead and poison  
7 somebody else's mind.

8 This article here only talks about Turkey  
9 Point and St. Lucie. How many of you know another  
10 nuclear power plant employer? Crystal River, how come  
11 it's not in that study? If you're going to be  
12 objective about your analysis, your study, you include  
13 all the variables. So take it for what it's worth.  
14 All the gentlemen that spoke, spoke very eloquently  
15 about it. I don't think I can match his wit and his  
16 years of experience, but I tell you one thing, he hit  
17 it right on the nail.

18 I want to thank you for the opportunity.  
19 I think it's worth it and you have the strong advocate  
20 in nuclear power. Today we are seventy percent  
21 dependent on foreign oil, and if you thought that in  
22 the 70's we had it bad, wait if we lose the power, the  
23 fuel coming from the Middle East. We would have to  
24 come up with alternatives for sources of energy, and  
25 not next week, not ten years from now. We need today.

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1 And in my mind, my professional opinion, nuclear power  
2 is the answer.

3 Thank you.

4 MR. CAMERON: Thank you, Mr. Velazquez.

5 Let's hear from Mr. Munns and Mr.  
6 Rothschild and then Elvira Williams and Kristy Doyle  
7 Bailey. Do we still have Mr. Munns here from Redlands  
8 Company?

9 UNKNOWN SPEAKER: (Inaudible.)

10 MR. CAMERON: Oh great. Thank you. Then  
11 give our apologies to him that we didn't get to him.

12 How about -- I know Mr. Rothschild is here  
13 and then we'll go to Elvira Williams and Kristy Doyle  
14 Bailey.

15 Mr. Rothschild.

16 MR. ROTHSCHILD: Good afternoon. My name  
17 is Rubert Rothschild. As you can see, I'm here in a  
18 dual purpose. I'm a scout leader and I'm an FPL  
19 employee.

20 In my employment with FPL I work in the  
21 materials manage department. I'm what they call a  
22 technical reviewer. I review purchase documents prior  
23 to them going to the agents to make sure that the --  
24 all the requirements are correct, all the engineering  
25 is correct, that it meets the current designs and all

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1 the regulations, local and State and Federal  
2 regulations are met, even before it gets to the buyer.

3 In my secondary capacity as a scout  
4 leader, or as a scouter, not a scout leader, I'm the  
5 training chairman for this District, from 152nd Street  
6 down to the Monroe County line. In that capacity I  
7 have the responsibility to train the leaders for  
8 approximately 75 units, Cub Scout, Boy Scout,  
9 Adventure Program leaders.

10 Because of the facilities at FPL, the  
11 Scout Camp that FPL makes available to us, this is the  
12 perfect facility to train leaders. Mr. Hovey, who for  
13 the past few years has been the chairman of the  
14 Friends of Scouting Campaign so that we raise money  
15 for our Scout Council, he's been very instrumental in  
16 that. He's also been instrumental in allowing the use  
17 of facilities to train Boy Scouts in the Atomic Energy  
18 Merit Badge. Over the last six years we've trained  
19 approximately 36 boys each year. We get to use the  
20 facilities of the control room simulator, the dress-  
21 out facility and also the survey meters and the boys  
22 come away with a very good merit badge that's a pretty  
23 tough one to get in most areas, except in areas like  
24 this.

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1           Let me step aside a little bit. I just  
2 came back from vacation and part of the vacation that  
3 I took was out west. I got to drive a little bit on  
4 Route 66 in a couple of areas. This morning on the  
5 radio they were talking about a Route 66 Association.  
6 You heard the report. But part of the report was  
7 saying that they were meeting out in California and  
8 there was an association of people that cared for  
9 Route 66, and there was also an association, when they  
10 came out there, they brought their old cars. There  
11 was cars from the 40's and 50's that were still  
12 running and people were talking about even older cars  
13 that they were going to fix up and bring out there.

14           Now it seemed to me there's a correlation  
15 between those old cars. If they're able to fix an old  
16 car and make it continue to work, we should be able to  
17 fix this nuclear plant and maintain it in a way that  
18 it can keep running safely and efficiently. And  
19 that's part of what I do. I make sure that the  
20 maintenance department and the haz-mat of spare parts  
21 and that the parts they need to maintain this place  
22 sufficiently and correctly.

23           Thank you.

24           MR. CAMERON: Thank you very much.

25           Is Elvira Williams still here?

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1 How about Kristy Doyle Bailey?

2 Okay, let's go to Mr. Luis Dilan.

3 MR. DILAN: Good afternoon. My name is  
4 Luis Dilan. I'm with the Vision Council and I'm also  
5 a Homestead resident here for twenty years.

6 This is a letter for record.

7 "On behalf of the Vision Council we wish  
8 to register our support for the relicensing of the  
9 Turkey Point Nuclear Power Plant. The Vision Council  
10 is an economic development agency here in Homestead,  
11 and the mission is to encourage the expansion of  
12 existing business and to recruit appropriate new  
13 businesses for the local area. We face a number of  
14 obstacles in our effort, including remoteness of major  
15 markets and a lack of a major technical base of raw  
16 materials."

17 "One of the things we do have is adequate  
18 power. We are fortunate not to be facing brown-outs  
19 and wondering each day whether we will have lights and  
20 cooling. Many of us remember the weeks after Andrew  
21 when the sound of generators was a consistent reminder  
22 of how much we have taken our normal power sources for  
23 granted."

24 "In addition to providing needed power to  
25 our locale, the Turkey Point facility is an important

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1 economic engine in itself. The number of people  
2 employed and their wage base is unparalleled in our  
3 area. Mr. William Fruth, a well known economic  
4 development planner, has stated that the best single  
5 industry a community can have is a nuclear power plant  
6 facility, because it generates capacity for business,  
7 it's non-polluting and a tremendous payroll capacity."

8 "Perhaps as in a community such as ours is  
9 the fact that the plants employees are our neighbors,  
10 our friends and important contributors to the life of  
11 our community. They are active in our little leagues,  
12 churches, civic and governmental organizations. FPL  
13 at Turkey Point is also a responsible citizen. Just  
14 one example is the remarkable job they have done in  
15 protecting and increasing the population of the  
16 endangered American crocodile."

17 "You're aware that much of Europe has  
18 directed its present and future power needs to nuclear  
19 energy to relieve dependency and import oil. We all  
20 should be aware of the proven security record of the  
21 nuclear power plant industry and the safeguards and  
22 security required at such installations. "

23 "Thousands upon thousands of South Florida  
24 residents are confident of the plant's safety, its  
25 management and security they provide every day,

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1 because they like us, live in close vicinity to the  
2 plant."

3 Thank you for your attention, Robert  
4 Dennison, Chairman."

5 Thank you.

6 MR. CAMERON: Thank you, Mr. Dilan, and  
7 we'll attach this to the record. Thank you very much.

8 Let's go to Brian Thompson and then to  
9 Steve Showen.

10 MR. THOMPSON: Good evening. My name is  
11 Brian Thompson. I'm the business manager for System  
12 Council U-4 for the International Brotherhood of  
13 Electrical Workers, which represents over 3000 unit  
14 employees on Florida Power and Light property  
15 throughout the State of Florida.

16 One of those local unions, Local 359, is  
17 located here in Dade County, which represents over 300  
18 of the union employees employed at the Turkey Point  
19 nuclear facility. Those employees include very highly  
20 skilled and professional craft workers in the  
21 operations, maintenance, electrical and instrument and  
22 control fields.

23 I'm here today to speak in favor of the  
24 twenty year license renewal and continued operation of  
25 the Turkey Point nuclear facility.

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1           As business manager for the union, three  
2 of my most important priorities are safety, the safety  
3 and well-being of employees, the safety and well-being  
4 of the public, training of our employees and the  
5 environment in which we all live.

6           On Florida Power and Light property we  
7 have what is known as a Joint Safety Program, which  
8 program through committees insures both the company  
9 and union have an equal say to provide for the safety  
10 of the employees, safe plan operation, safety to the  
11 public and environmental protection.

12           I am proud to say that as business manager  
13 I have actively participated on the Corporate Safety  
14 Committee for the past eight years in the Nuclear  
15 Joint Safety Program. This committee is responsible  
16 for studying and consistently reviewing the safety  
17 rules, policies and procedures for which the plant  
18 employees must adhere to and which the plant must  
19 operate under.

20           As a result of our efforts and the true  
21 dedication of these rules, policies and procedures by  
22 the employees of Turkey Point, the facility has  
23 consistently been recognized as being one of the  
24 safest and most reliable nuclear power plants both in  
25 the United States and in the world. The only nuclear

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1 power plant in the United States to receive three  
2 consecutive superior ratings from its regulator, the  
3 Nuclear Regulatory Commission, spanning the years of  
4 1994 through 1999.

5 Safety performance indicators,  
6 consistently in the top percentile of the nuclear  
7 plants throughout the United States. And a quest for  
8 excellence aware from an independent assessor in 1995,  
9 1998 and the year 2000 for excellence in nuclear plant  
10 operation.

11 In the area of training, both the company  
12 and union have developed and consistently oversee some  
13 of the most vigorous training programs within the  
14 company for its employees. Operators that operate the  
15 plant must undergo fourteen months of intense initial  
16 training to even qualify for their jobs, and must re-  
17 qualify for their position every six weeks through  
18 their careers in a one week training course to insure  
19 proper and safe plant operation.

20 Most of the skilled craft workers were  
21 trained through a four year apprentice program in  
22 which they were taught their skills and technical  
23 abilities and must undergo routine annual training to  
24 insure outstanding performance skills are maintained  
25 to keep the plant reliable and well maintained.

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1 All employees are also trained on a  
2 regular basis for even the unlikely event of an  
3 emergency. Quarterly the plant employees conduct  
4 drills and practice their skills in emergency response  
5 and readiness. They also conduct drills which include  
6 representatives from local, State and Federal agencies  
7 who coordinate activities for the public safety, as  
8 well as regular safety training each and every month.

9 Environmentally, the plant must meet very  
10 strict and stringent radiation safety standards  
11 designed to protect the employees and insure the  
12 community health and safety.

13 The company consistently monitors the air  
14 and water quality around the plants and surrounding  
15 communities to insure these standards are maintained.

16 Over the past 28 years since the plant has  
17 been operational, I believe the employees of the  
18 Turkey Point nuclear facility and the company have  
19 established themselves as good stewards of our  
20 environment. They have clearly demonstrated their  
21 commitment of managing and achieving a careful balance  
22 between the environment and producing a very cost  
23 effective, clean, safe and reliable source of  
24 electricity that is possible at all time.

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1           For these reasons and in closing, I'm  
2 asking that the license renewal for the Turkey Point  
3 nuclear facility be approved so that we can keep this  
4 very valuable source of energy for the community well  
5 into the future.

6           Thank you.

7           MR. CAMERON: Thank you very much, Mr.  
8 Thompson. Do you want us to attach that to the  
9 record? All right, thank you very much.

10           Mr. Showen, Mr. Rydholm and Mr. Cullen.  
11 Mr. Showen?

12           MR. SHOWEN: I am Steve Showen. I'm a  
13 concerned citizen having lived in Dade County for  
14 nineteen years.

15           The ultimate consequences of environmental  
16 health is human health. Before renewing the license  
17 at any nuclear power facility the first consideration  
18 should be public health and safety. Research by the  
19 Radiation and Public Health Project indicate a  
20 correlation between operation of nuclear power plants  
21 and childhood and adult cancer.

22           The Federal Government permits FP&L to  
23 release radioactive materials into the environment as  
24 a function of normal operations. The National  
25 Research Council Committee on the biological affects

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1 of ionizing radiation has found that there is no safe  
2 level of exposure to radiation.

3 Strontium 90 is a major component of  
4 permitted radioactive emissions. Never having existed  
5 in nature, created only in atomic bomb blasts, in  
6 nuclear reactors, it is a known carcinogen. There has  
7 been no above ground testing for decades. Strontium  
8 90 presence in the environment is increasing rather  
9 than declining, as one might expect.

10 Consider a moment the effects of ingesting  
11 and retaining in the body radioactive SR 90 over one's  
12 lifetime. The Tooth Fairy Project is a national study  
13 conducted by the Radiation and Public Health Project  
14 which has begun to tackle that very question, by  
15 tracking the levels of strontium 90 in the body, in  
16 the baby teeth of question. South Florida is proving  
17 to have the highest levels of strontium 90 in teeth  
18 nationwide, and according to RPHP, curiously, among  
19 the highest childhood cancer rates as well.

20 Extending the operation of the nuclear  
21 power plant for years beyond its design life raises a  
22 whole host of safety questions, not the least of which  
23 is the matter of accumulation of nuclear waste. But  
24 the question of the safety of normal operations  
25 emissions should have been answered a long time ago.

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1 We must determine the radiation cancer link before  
2 proceeding. Let's find the answer. Let's put public  
3 health first.

4 MR. CAMERON: Thank you very much, Steve,  
5 for those comments.

6 Mr. Rydholm?

7 MR. RYDHOLM: Good afternoon. My name is  
8 Derek Rydholm. I represent the Homestead Air Reserve  
9 Station.

10 We talked a little bit earlier about  
11 Hurricane Andrew and the loss of Homestead Air Force  
12 Base to the local community. What's left of that is  
13 an Air Reserve installation and I can echo the  
14 sentiments of the local community, being an active  
15 member of the Military First Committee, and the  
16 sentiments that we have shared throughout the base,  
17 that the impact of the employees and the partnership  
18 that we have with Turkey Point are both felt with us,  
19 and I can understand recognizing the City of Homestead  
20 and the problems they're having are the problems  
21 they've had as a result of the loss of the active duty  
22 population of Homestead have been very difficult.

23 We endorse Turkey Point. We have found  
24 nothing but strong support in what we've done with  
25 them. Prior to Hurricane Andrew we had an Air Force

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1 water survival training center that was based right  
2 there at the mouth of the cooling canals and I have  
3 utilized that. We've utilized the pavilion for  
4 functions in our wing and at our base and have been  
5 very happy with that.

6 As a community member, and I've lived in  
7 the local community for twelve years, I live in Key  
8 Largo right now, I have a number of friends that work  
9 out at the plant and they have nothing but good things  
10 to say. They're very content and very happy with  
11 their jobs.

12 Once again, from our prospective as a  
13 community partner with Florida Power and Light and  
14 with Turkey Point, Homestead Air Reserve Station  
15 endorses the renewal of their license.

16 Thank you very much.

17 MR. CAMERON: Thank you. Is Mr. Cullen  
18 still here from Monroe County? Sorry we kept you  
19 waiting.

20 MR. CULLEN: Good evening. I'm the  
21 radiological emergency planner for Monroe County  
22 Emergency Management. I'm also a former resident of  
23 New York City and I was curious to see why, with the  
24 slides that were up here, an analysis is being made  
25 between the radiation, particularly strontium 90, for

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1 Dade County in comparison to Suffolk County. As you  
2 all know, there was a nuclear power plant Shoreham up  
3 there and I would assume that was the reason for the  
4 analogy. I double checked my facts with my boss,  
5 Irene Toner, and Shoreham never went on line. So I  
6 would think that any of the results that we're showing  
7 for Suffolk County would be based on something other  
8 than a nuclear power plant.

9 Ms. Toner worked at that power plant in  
10 emergency planning up until the time it was  
11 deactivated or shortly before it was deactivated, and  
12 the plant never actually went on line. I don't even  
13 believe they loaded fuel up there.

14 It's strange though how the more things  
15 change, the more they stay the same. I've had an  
16 opportunity to read your Impact Statement, and I think  
17 you've hit the nail right on the head. I think you've  
18 done your homework. I read the report from the  
19 Florida Bureau of Health. I work with them on almost  
20 a daily basis in my job. I trust their methodology.  
21 I trust their analysis. I trust their findings.

22 I have a problem with some of the other  
23 reports that I've read. I think we've had enough on  
24 that today.

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1           Just a couple of questions for the group.  
2           The half life of strontium 90 I believe is almost 29  
3           years. By half life that means that half of what fell  
4           is still around and in another 29 years half of that  
5           will still be around. So if we're talking about  
6           atmospheric stopping in the 1980's, my calculation is  
7           that at least half of that is still around.

8           I'm also curious with Hurricane Andrew, if  
9           we had winds of 150 miles an hour, why the dust would  
10          fall in Dade County and wouldn't be blown out to  
11          Naples or some other place.

12          The other dichotomy -- I don't know if  
13          there was any planning in this -- today is the day  
14          before the release of Jurassic Park III and while some  
15          people may bemoan the loss of the dinosaurs, if I'm  
16          correct we still have some descendants on earth. We  
17          have crocodiles. We have alligators. We have  
18          manatees. I think it's significant that in the area  
19          around the three nuclear power plant locations in  
20          Florida, obviously here at Turkey Point, major ground,  
21          major habitat for the American crocodile. We  
22          certainly have alligators. I believe the State of  
23          Florida has a million alligators. They are not dying  
24          off.

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1           Manatees are at the Turkey Point plant.  
2           Crystal River is a habitat of the manatees. A number  
3           of other endangered species are thriving at the  
4           nuclear power plant at Turkey Point. And just to show  
5           you how you can twist things around and why you have  
6           to really analyze it, I think that if you were to  
7           listen to what was being said today, an argument could  
8           be made that the Sierra Club supports the use of  
9           fossil fuels in environmentally sensitive areas,  
10          because that is the only viable alternative to nuclear  
11          power. I'm not saying that that is what they're  
12          doing. I'm just saying that you can twist things  
13          around to make it appear that way.

14                 I hope that you will take your own  
15          reports, your own analysis and grant the license  
16          renewal here. I moved from the northeast because I'm  
17          sick and tired of the smog and pollution that's up  
18          there, and I know that that comes from fossil plants  
19          and I don't want to see any more fossil plants down  
20          here in South Florida.

21                         Thank you.

22                         MR. CAMERON: Thank you, Mr. Cullen.

23                         I'd like to thank everybody who is here,  
24          still on their feet so to speak, and thank you all for

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1 your comments today and your patience. I don't think  
2 that we missed anybody who signed up for the meeting.

3 We are going to be here again tonight.  
4 Thank you.

5 (Whereupon, a break was taken at 5:20  
6 p.m.)

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