

**OFFICIAL TRANSCRIPT OF PROCEEDINGS  
UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**Title:** PUBLIC MEETING:  
10 CFR 2.206 PETITION

**Case No.:**

**Work Order No.:** NRC 1219

**LOCATION:** Rockville, MD

**DATE:** Friday, April 7, 2000

**PAGES:** 1 - 92

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING: 10 CFR 2.206 PETITION

Nuclear Regulatory Commission  
One White Flint North  
Building 1, Room 08-B4  
11555 Rockville Pike  
Rockville, Maryland  
Friday, April 7, 2000

The above-entitled meeting commenced, pursuant to  
notice, at 1:00 p.m.

PARTICIPANTS:

- LEN WIENS, NRC/NRR/PDII
- RAM SUBBARATNAM, NRC/NRR/PDII
- MARSHA GAMBERONI, NRC/NRR/PDI
- WARREN LYON, NRC/NRR/DSSA/SRXB
- HERB BERKOW, NRC/NRR/PDII
- JIM ANDERSEN, NRC/NRR
- STEPHEN MCGUIRE, NRC/IRO
- STEVE LONG, NRC/NRR/DSSA/SFSB
- TOM MADDEN, NRR/OCA
- JOSEPH SHEA, NRC/OEDO

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1 PARTICIPANTS: [Continued]  
2 LLNDINE SHOOP, NRC/OEDO  
3 E.G. ADENSAM, NRC/NRR/DLPM/LPDI  
4 FRANCINE GOLDBERG, NRC/OCID/IMO  
5 BILL McDOWELL, NRC/OIG  
6 VICTOR DRICKS, NRC/OPA  
7 MARK SATORIUS, NRC/OEDO  
8 JEFFEREY HAROLD, NRC/DLPM  
9 DAVID LOCHBAUM, Reactor Engineer, Union of Concerned  
10 Scientists  
11 PAUL GUNTER, NIRS  
12 ED SMELOFF, Pace Energy Project  
13 BRENT BRANDENBERG, Con Edison  
14 JOHN McCANN, Con Edison  
15 PETER CRANE  
16 HERB FONTECILLA, Virginia Power  
17 TOM POINDEXTER, Winston & Strawn for Con Edison  
18 DAVID STELLFOX, McGraw-Hill  
19 DEB KATZ, Citizens Awareness Network  
20 TIM JUDSON, CNY-CAN  
21 JOOP BOER, Wise  
22 JIM RICCIO, Public Citizen  
23 ROBERT AUGUSTINE  
24 BRIAN WALSH, Representative Benjamin A. Gilman  
25 NICK CURRAN, Representative Sue Kelly

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1 PARTICIPANTS: [CONTINUED]

2 DAVID MODEEN, NEI

3 KARA MURPHY, Representative Nita Lowey

4 SERGIO BUSTOS, Gannett News Service

5

6 PHONE ATTENDEES:

7 PETE ESELGROTH, Regional NRC

8 NEIL SHEEHAN, Regional NRC

9 DIANE SERENTI, Regional NRC

10 A. RANDY BLOUGH, Regional NRC

11 PETER RULAND, Region I

12 WAYNE LANNING, Regional NRC

13 PETER JAMES ATHERTON, Nuclear Safety Consultant

14 MARC JACOBS, WEPAC

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

[1:00 p.m.]

1  
2  
3 MR. WIENS: I am Len Wiens, the petition manager  
4 for the Indian Point 2 petition that was submitted on March  
5 14th. Just a couple of little things, one is for those of  
6 you who are not familiar with our facilities here, there is  
7 restrooms out in the lobby, men's and women's, and water  
8 fountains if anybody needs to get a drink of water or  
9 anything.

10 There is a sign-up sheet that is going around.  
11 Marsha has it over in the corner now. I would appreciate it  
12 if everybody would sign up before the end of the meeting.  
13 If you don't get an opportunity during the meeting, it will  
14 still be here at the end, so if you would all make sure you  
15 enter your names. I would ask that you try and print as  
16 clearly as you can, because that makes it easier for our  
17 secretary accurately produce it for the meeting summary, and  
18 it will be included in the meeting summary, which will be  
19 issued shortly after the meeting.

20 There are handouts available that have been  
21 provided for this meeting. If people don't have them, we  
22 will start passing them around.

23 MR. GUNTER: Yes, you are saying that there is  
24 going to be a meeting summary, but I notice that there is a  
25 reporter here, and I am curious about the transcript.

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1 MR. WIENS: The meeting summary will include the  
2 transcript.

3 MR. GUNTER: Thank you.

4 MR. WIENS: This meeting -- actually, I am going  
5 to turn it over to Suzy here in just second, but that will  
6 go over that some items also. But the transcript will be  
7 included, and, actually, will probably be the majority part  
8 of the meeting summary.

9 MS. BLACK: Would the transcriber like us to try  
10 to remember to identify ourselves each time we speak, or are  
11 you going to be able to keep track of us?

12 THE REPORTER: Initially.

13 MS. BLACK: Initially, okay.

14 MR. WIENS: Okay. I see a few hands. I was going  
15 to ask if anybody has questions for me. It is kind of the  
16 nuts and bolts part of it before I turn it over to Suzy.

17 MR. FONTECILLA: Will be ale to get a copy of the  
18 attendees list of the meeting?

19 MR. WIENS: The attendees list? Yes. You can get  
20 it after the meeting. I will make copies for anyone who  
21 wants it, and it will also be an attachment to the meeting  
22 summary.

23 Anybody else have any like administrative  
24 questions?

25 [No response.]

1 MR. WIENS: Okay. I would like to introduce  
2 Suzanne Black, she is the Deputy Division Director for the  
3 Division of Licensing Project Management and the chairperson  
4 for this petition.

5 MS. BLACK: Okay. Good afternoon. My name is  
6 Suzanne Black, and I the Deputy Director, Division of  
7 Licensing Project Management in the Office of Nuclear  
8 Reactor Regulation, and I am also the chairperson of the  
9 Petition Review Board.

10 The 2.206 petition process permits any person to  
11 file a written request for the staff to take enforcement  
12 action against a licensee. The request must provide  
13 sufficient grounds for taking the enforcement action. The  
14 NRC assigns the request to the appropriate office, which  
15 forms a Petition Review Board, which determines whether the  
16 petition meets the criteria for review under 10 CFR 2.206.

17 The petitioners were sent a letter acknowledging  
18 receipt of the petition following this decision. For this  
19 petition, the acknowledgement letter was issued on April  
20 5th, 2000.

21 If deemed appropriate, a public meeting may be  
22 held with the petitioners and the licensee at any time  
23 during the course of this status review. Such a meeting  
24 affords the petitioners and the licensee an opportunity for  
25 enhanced involvement in the Commission's decision-making

1 process.

2           The NRC will evaluate the petitioners' requests,  
3 including information provided in any public meetings, and  
4 develop a Director's decision which will either grant,  
5 partially grant or deny the petitioners' request.

6           The petition is kept informed by the petition  
7 manager, usually the project manager for the facility  
8 identified in the petition. Up-to-date status of pending  
9 2.206 petitions is available on the NRC home page.

10           Before we get started, I would like to take a few  
11 minutes to share with the meeting attendees the status of  
12 some initiatives being taken to further improve the 10 CFR  
13 2.206 process. Last year we made some improvements to the  
14 petition review process, which are described in the  
15 Management Directive.

16           We put the revised Management Directive out for  
17 public comment last fall, and we had two meetings with the  
18 stakeholders. At those meetings we discussed stakeholder  
19 comments and potential improvements to the process. The  
20 staff is preparing a Commission memorandum which proposes  
21 that all the suggested improvements discussed at those  
22 meetings be incorporated into the Management Directive.

23           There is a Commission meeting scheduled for May  
24 25th to discuss these proposals. We are attempting to be  
25 responsive to our stakeholders and make this process more

1 effective.

2 Now, in the March 14th, 2000 petition, the  
3 petitioners requested that the NRC order Indian Point 2 to  
4 remain shut down until all four steam generators are  
5 replaced, an NRC Differing Professional Opinion on steam  
6 generators, and a related Generic Safety Issue are resolved,  
7 and potassium iodide tablets are distributed or stockpiled  
8 near Indian Point 2.

9 As I said, the acknowledgement letter for Indian  
10 Point 2 was issued two days ago on April 5th. This letter  
11 documented that the request for NRC to issue an order to  
12 prevent restart of Indian Point 2 until all four steam  
13 generators are replaced satisfies the criteria for  
14 acceptance and processing as a 2.206 petition.

15 The additional requests that this restart be  
16 prevented until the resolution of the Differing Professional  
17 Opinion and related Generic Safety Issue, and until the  
18 potassium iodide tablets are distributed or stockpiled in  
19 the vicinity of Indian Point 2 were determined to not meet  
20 the criteria for review under 10 CFR 2.206 because they  
21 raised generic issues for which sufficient information was  
22 not provided specific to the Indian Point 2 restart. These  
23 issues are being handled under separate NRC processes.

24 In a letter dated March 22nd, 2000, the  
25 petitioners requested that Dr. Hopenfeld, an NRC employee,

1 participate in this meeting to discuss his concerns  
2 regarding steam generator tube integrity that he has  
3 documented in a Differing Professional Opinion. Dr.  
4 Hopenfeld met yesterday with staff from our Division of  
5 Engineering to discuss how his concerns may relate to Indian  
6 Point 2 event.

7           However, a government-wide law permits federal  
8 employees from representing any non-government person before  
9 a federal agency on a particular government matter.

10 Therefore, because Dr. Hopenfeld is subject to this law, he  
11 cannot participate in today's meeting as a representative of  
12 the petitioners. However, he was offered the opportunity to  
13 attend this meeting.

14           Although the request concerning potassium iodide  
15 was determined not to meet the criteria for review under  
16 2.206, this issue is being considered by the Commission in a  
17 rulemaking, and a final rule is scheduled to be issued  
18 mid-year.

19           Now, the purpose of today's meeting is to receive  
20 additional information or clarification that the petitioners  
21 may provide relevant to Indian Point 2 concerning their  
22 petition. Today's meeting participants are the petitioners,  
23 the licensee and the NRC. Members of the public are welcome  
24 as observers.

25           In accordance with staff procedure, a conference

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1 call was held with the petitioners and the licensee on March  
2 16th to clarify the petitioners' request and obtain  
3 additional information. During the March 16th conference  
4 call, the petitioners stated they have information which  
5 they believe indicates that the auxiliary feedwater heat  
6 transfer calculations applicable to transients and accidents  
7 are invalid due to the percentage of steam generator tubes  
8 currently plugged.

9 By letter dated March 24th, we asked the  
10 petitioner to provide this information in writing and we are  
11 still waiting for that information. The staff will listen  
12 to the presentations of the two participants today, but will  
13 not debate the technical merits or make any comments or  
14 decisions today other than to ask questions for  
15 clarification if necessary.

16 To ensure this information is accurately received,  
17 the meeting is being transcribed, and the technical staff  
18 will review the transcript and provide their inputs to the  
19 Petition Review Board and the Director's decision.

20 Following this meeting, the Petition Review Board  
21 will reconvene to reconsider its determination on whether  
22 the Differing Professional Opinion and the potassium iodide  
23 issues meet the criteria to be reviewed under 10 CFR 2.206.

24 Now, I would like to introduce the NRC staff, ask  
25 the petitioners to introduce themselves and anyone who will

1 represent them on the record today, and, finally, the  
2 licensee. I understand that there are some Congressional  
3 staff who would like to provide statements in support of the  
4 petition, and I would like the petitioners to decide whether  
5 they wanted the Congressional staff to read their statements  
6 into the record before or after your presentation.

7 So, with that, I have already introduced myself.  
8 Len has already introduced himself. Marsha.

9 MR. GAMBERONI: I am Marsha Gamberoni in DLPM,  
10 Division of Licensing Project Management.

11 MS. BLACK: And the NRC staff.

12 MS. ADENSAM: Elinor Adensam, Project Director for  
13 the Division of Licensing Project Management.

14 MS. GOLDBERG: Fran Goldberg, Office of the Chief  
15 Information Officer.

16 MS. KATZ: Deb Katz, Citizens Awareness Network.

17 MS. BLACK: We are only asking for NRC. Sorry.  
18 Okay.

19 MS. SHOOP: I am Dina Shoop, Office of the  
20 Executive Director.

21 MR. SHEA: Joe Shea, Office of the Executive  
22 Director.

23 MR. MADDEN: Tom Madden with Congressional  
24 Affairs.

25 MR. LONG: Steve Long, Applications.

1 MS. BLACK: Okay. And then the Region, do we have  
2 somebody on the phone from the Region? I'm sorry.

3 MR. BERKOW: Herb Berkow, Project Director, NRR.

4 MR. SUBBARATNAM: Ram Subbaratnam, Agency  
5 Coordinator for 2.206 Petitions.

6 MR. LYON: Warren Lyon, Reactor Systems.

7 MR. HAROLD: Jeff Harold, I am the Project Manager  
8 for Indian Point 2.

9 MR. SATORIUS: Mark Satorius, Executive Director's  
10 Office.

11 MR. DRICKS: Victor Dricks in the Office of Public  
12 Affairs.

13 MS. BLACK: And is there anyone in the Region on  
14 the telephone?

15 MR. BLOUGH: Randy Blough, Region I.

16 MS. BLACK: Okay.

17 MR. RULAND: This is Peter Ruland, Region I.

18 MR. LANNING: Wayne Lanning, Region I

19 MR. ESELGROTH: And Pete Eselgroth, Region I.

20 MR. SHEEHAN: Neil Sheehan, Region I.

21 MS. BLACK: Okay. Thank you. David.

22 MR. LOCHBAUM: My name is David Lochbaum with the  
23 Union of Concerned Scientists, and I am pleased to be joined  
24 here today by Ed Smeloff from Pace Law School Energy  
25 Project, Paul Gunter from the Nuclear Information Resource

1 Service, Jim Riccio from Public Citizen's Critical Mass  
2 Energy Project, Deb Katz who is -- that is still Deb Katz  
3 from the Citizens Awareness Network, Tim Judson from Central  
4 New York Citizens Awareness Network, and also Kara Murphy  
5 from Congresswoman's Nita Lowey's Office. And we would like  
6 to give Kara Murphy the opportunity to make her statement at  
7 the beginning before we get started.

8 MS. BLACK: And could I have the licensee  
9 introduce themself first and then we will go into that.

10 MR. McCANN: My name is John McCann, I am the  
11 Licensing Manager for Con Edison at Indian Point 2.

12 MR. BRANDENBERG: Brent Brandenburg, counsel for  
13 Con Edison.

14 MS. MURPHY: Again, my name is Kara Murphy, I am  
15 District Representative for Congresswoman Nita Lowey. I am  
16 just going to read a statement, a statement of Congresswoman  
17 Nita Lowey on April 7th, 2000, the NRC hearing.

18 I share the concerns of the many environmental  
19 groups and residents regarding the status of Indian Point 2  
20 nuclear power facility. I believe the owners and regulators  
21 of the facility have a responsibility to prevent the  
22 reopening of Indian Point 2 until several conditions are met  
23 to protect the health and safety of the residents of the  
24 surrounding communities.

25 As you know, the following conditions have been

1 raised by several scientific and community advocacy  
2 organizations including the Pace Law School Energy Project,  
3 the Public Citizen's Critical Mass Energy Project, and the  
4 Union of Concerned Scientists. I expressed these concerns  
5 in a letter to Chairman Richard A. Meserve on March 22nd,  
6 2000. Again, I join these organizations in urging that the  
7 plant remain closed until:

8 All four steam generators are replaced;

9 Dr. Joram Hopenfeld's ongoing safety concerns  
10 regarding the NRC's policies and procedures to a.) permit  
11 plants to operate with damaged steam generator tubes; b.)  
12 use the Westinghouse methodology to test the tubes; and c.)  
13 appoint a panel of NRC experts, instead of an independent  
14 panel, to evaluate his objections, are fully addressed and  
15 resolved; and

16 Potassium iodide (KI) tablets are distributed to  
17 residents and businesses within the 10-mile emergency  
18 planning zone and are stockpiled in the vicinity of the  
19 Indian Point 2 facility.

20 I believe that implementation of these  
21 recommendations before Indian Point 2 is reopened will help  
22 maintain public health and safety while reviewing the  
23 efficiency and effectiveness of the facility.

24 MS. BLACK: Thank you. I think I would like to  
25 ask our Petition Manager to make copies for everybody.

1 MS. MURPHY: Sure. Actually, I do have quite a  
2 few copies. Yes. I have about 20. I don't know if you  
3 want to make some more.

4 MR. LOCHBAUM: Thank you. I was also remiss, I  
5 missed a person, unintentionally. Peter Crane, he is also  
6 -- we are very pleased to have Peter Crane here today to  
7 talk about potassium iodide, although he is not representing  
8 us. He is here today to talk about his concerns. We are  
9 going to make the link between the concerns and Indian Point  
10 2.

11 MS. BLACK: He has to be associated with you to  
12 make a statement today. I mean do you have an objection to  
13 being associated with the petitioners? Because members of  
14 the public aren't permitted to speak at these meetings.

15 MR. CRANE: They have asked me to speak in the  
16 capacity as knowing something about the subject of both  
17 potassium iodide and the DPO process at the NRC. I made it  
18 clear that I was coming here to speak, to offer my  
19 information and my insights on this. I am not a member of  
20 any of the petitioner groups, I am not associated with them.  
21 I do not care to alter that for the sake of being able to  
22 speak.

23 If you don't want to hear me, you don't have to  
24 hear me. Just as in 1997, at the Commission meeting on  
25 potassium iodide, when the American Thyroid Association

1 asked for 15 minutes to hear Jacob Robbins, Scientist  
2 Emeritus at NIH, the Commission, in its wisdom, said, no, we  
3 are not going to hear it, we will rely on the staff for our  
4 medical expertise. If you want it, so be it. I am not  
5 speaking under those circumstances.

6 MS. BLACK: Okay. So, can I clarify, you are not  
7 associated with them, but you would represent -- or not even  
8 represent --

9 MR. CRANE: I am not representing them, I thought  
10 I made that clear.

11 MR. GUNTER: Mrs. Black, --

12 MR. CRANE: I am providing information that is  
13 useful to a resolution of the issues they have raised. I  
14 could be considered their witness, but I am not representing  
15 them and they are not representing me.

16 MS. BLACK: Okay.

17 MR. CRANE: And if that is not good enough, so be  
18 it.

19 MR. GUNTER: Mrs. Black, Paul Gunter, Nuclear  
20 Information Resources. Just so that it is absolutely clear,  
21 Mr. Crane is here at the invitation of the petitioners. And  
22 that invitation is extended because of his extensive  
23 knowledge in the potassium iodide issue and the DPO process.  
24 So while there is no membership representation or no  
25 necessary representation, he is here at our request and our

1 invitation.

2 MS. BLACK: Yes, he doesn't have to be a member of  
3 your association to speak on your behalf today, but he will  
4 be speaking on your behalf, as opposed to as a public  
5 citizen.

6 MR. GUNTER: Yes, he is here at our invitation.

7 MS. BLACK: Okay. As long as you make that clear.  
8 And witness, I don't think that is the right word, because  
9 this isn't a hearing.

10 MR. RICCIO: It is not a hearing. There we go.

11 MS. BLACK: Okay.

12 MR. ESELGROTH: Hey, Suzy.

13 MS. BLACK: Yes.

14 MR. ESELGROTH: There may be other folks on the  
15 conference call that haven't introduced themselves yet.

16 MS. BLACK: That represent the NRC or the  
17 petitioners?

18 MR. ESELGROTH: Consultants or the public. There  
19 is Peter Atherton.

20 MS. BLACK: Oh, is Peter Atherton with your group?  
21 I understand that Peter James Atherton is not with the  
22 petitioner group and we are not introducing the public, only  
23 the participants in the meeting.

24 MR. ESELGROTH: All right. Just so you are aware  
25 that there are some on the conference call who may not have

1       been introduced. All right.

2               MS. BLACK: Okay. Now, how do we get their names  
3       into the attendee sheet, though? I guess we might as well  
4       say your name and then we can write you down on the  
5       attendees as observers.

6               Okay. Is there anybody other than Peter James  
7       Atherton listening in, and the Regional people?

8               MR. JACOBS: Yeah, there is myself, Marc Jacobs,  
9       Director of WEPAC.

10              MS. BLACK: Okay. You got that? All right.  
11       Thank you.

12              SPEAKER: Who was the one who brought it up? He  
13       didn't say.

14              MS. BLACK: He was somebody from Region I. Who  
15       was it that brought that up?

16              MR. ESELGROTH: Pete Eselgroth, Region I.

17              MS. BLACK: Pete Eselgroth. Okay. Go ahead.

18              MR. LOCHBAUM: Thank you. I am Dave Lochbaum.  
19       The central issue in our petition pits usable life versus  
20       loseable life. Con Ed has acquired replacement steam  
21       generators many years ago. The company doesn't want to swap  
22       them out for the existing steam generators until the useful  
23       life of the existing steam generators is completely  
24       exhausted. That is a business decision based primarily on  
25       economics.

1           There is a larger issue involved. Steam  
2 generators are the final barrier between highly radioactive  
3 material and the environment. When that barrier is  
4 breached, concerns about useable life are superseded by  
5 concerns about loseable life, the health and well being of  
6 plant workers and the public.

7           The petitioners will show today that efforts by  
8 Con Ed and the NRC to control steam generator tube  
9 degradation at Indian Point 2 have failed, and there is no  
10 reason to believe that these efforts will be any more  
11 successful in the future.

12           Because Con Ed and the NRC are not infallible and  
13 because the people working at and living around the plant  
14 are not immortal, the petitioners request the NRC to require  
15 the following three actions to be taken before the plant is  
16 restarted. And these three actions are to replace all four  
17 steam generators, to resolve Dr. Hopenfeld's formal concerns  
18 about steam generator tube ruptures and to provide potassium  
19 iodide tablets for the surrounding population.

20           Dr. Hopenfeld's concerns are over eight years old,  
21 but, unfortunately, those are the youngest of the three  
22 items on our list. Con Ed required the replacement steam  
23 generators over 10 years ago and has not yet put them in.  
24 Nearly two decades ago, following the Three Mile Island  
25 accident, most of the post-event inquiries recommended KI

1 tablets be provided as a prudent public health measure.

2 Thus, our petition deals with public health and  
3 safety issues that are eight, 10 and 20 years old. The NRC  
4 and the nuclear industry are fond of saying that safety is  
5 their top priority. Actions may speak louder than words,  
6 but in this case, inactions speak the loudest. Dr.  
7 Hopenfled's concerns have not yet been resolved. The  
8 replacement steam generators have not yet been installed and  
9 KI tablets have not yet been provided.

10 The NRC must put the loseable lives of plant  
11 workers and members of the public ahead of the useable life  
12 of four big pieces of metal and grant all three items  
13 requested in our petition.

14 I would like to briefly move to Item Number 1, and  
15 that is replace the IP2 steam generators. We request that  
16 the NRC not permit IP2 to be restarted with the existing  
17 steam generators. While the NRC cannot directly order Con  
18 Ed to replace the steam generators, the NRC can and should  
19 prevent this facility from restarting with the existing  
20 degraded steam generators.

21 Eight nuclear power plants in the United States  
22 had operated with steam generators like the ones at Indian  
23 Point 2. Seven of those reactors have replaced the steam  
24 generators with new and improved steam generators. The only  
25 nuclear power plant and the reactor still operating with

1 Model 44 steam generators is Indian Point 2.

2 Unless common sense prevails, in August of this  
3 year Indian Point 2 will set a dubious record, it will be  
4 the nuclear power plant in the United States with the most  
5 aged Model 44 steam generators.

6 The issue with the existing steam generators is  
7 steam generator tube degradation. What happens when  
8 degraded tubes are found? According to EPRI, the Electric  
9 Power Research Institute, "Once tube degradation has  
10 occurred, the goal is defect management, that is to ensure  
11 that damaged tubes that could leak or rupture during the  
12 next operating cycle are identified and then either repaired  
13 or removed from service."

14 Why is defect management important? The Idaho  
15 National Engineering Laboratory says, "Steam generator tube  
16 degradation needs to be controlled to prevent a significant  
17 increase in the risk profile of a pressurized water  
18 reactor."

19 Thus, the danger to the public is significantly  
20 increased when steam generator tube degradation is not  
21 properly controlled.

22 Have Consolidated Edison's efforts to control  
23 steam generator tube degradation at Indian Point 2 been  
24 successful? We will use the success criteria as defined by  
25 Con Ed and the Nuclear Regulatory Commission, and they

1 appear on page 4 of my presentation.

2 Con Ed says that their inspection program meets  
3 with the guidance of Regulatory Guide 1.83 and say that "the  
4 purpose of the surveillance is to provide assurance of  
5 equipment integrity necessary to operate without  
6 experiencing tube rupture or tube leakage in excess of  
7 specified limits."

8 They also say that they conform with Reg. Guide  
9 1.121 where operational leakage rate limits require a plant  
10 shutdown based on a leak-before-break consideration to  
11 detect a free span crack before a potential tube rupture.

12 The NRC says that Con Ed is required to monitor  
13 primary-to-secondary leakage to ensure that, in the event  
14 that steam generator tubes begin to leak, operators will be  
15 able to bring the plant to a depressurized conditions before  
16 a tube ruptures.

17 Finally, the NRC last year said that it was okay  
18 to continue operating Indian Point 2 because should a leak  
19 develop, it would be quickly detected allowing immediate  
20 mitigating actions to be taken before tube rupture occurs.

21 Thus, this steam -- this criteria, success  
22 criteria, means that successful control of steam generator  
23 tube degradation will not result in tube rupture. On  
24 February 15th of this year, a tube ruptured at Indian Point  
25 Unit 2.

1           This event occurred many years after Con Ed sued  
2 Westinghouse, who was the manufacturer and supplier of the  
3 Model 44 steam generators. Why did Con Ed sue Westinghouse?  
4 Quote, and this is Con Ed's words as to why they sued  
5 Westinghouse, "Despite identification and continuing  
6 acknowledgement by Westinghouse of the degradation of the  
7 steam generators caused by corrosion and other factors and  
8 requests by Con Edison that Westinghouse correct these  
9 defects in the steam generators by stopping the process of  
10 deterioration, corrosion, denting, closing and cracking,  
11 which by the terms of the IP2 Agreement Westinghouse was  
12 required to do so at no cost to Con Edison, Westinghouse has  
13 failed to do so or has been unable to do so."

14           If you substitute the word "Con Edison" for  
15 "Westinghouse" and either "NRC" or "the public" for "Con  
16 Edison" in this indictment, it is as valid today as it was  
17 years ago. Con Ed knows that the steam generators in Unit 2  
18 are degraded but has failed to or has been unable to replace  
19 them with the non-deformed, non-degraded steam generators in  
20 the warehouse.

21           We have identified six reasons why we think the  
22 steam generators at Unit 2 must be replaced prior to  
23 restart.

24           First is the nuclear industry and the NRC have a  
25 poor track record of controlling steam generator tube

1 degradation.

2 Second, the radiation exposures to workers IP2  
3 will be reduced if the steam generators are replaced.

4 Third, safety margins will be significantly  
5 increased by improved heat transfer capabilities.

6 Fourth, safety margins will be significantly  
7 increased by reducing the dependence on operator actions.

8 Fifth, safety margins will be significantly  
9 increased by clarifying whether Con Ed conforms with  
10 accepted industry practice.

11 And, sixth, a financial analysis concluded that  
12 the company lost money by not replacing the steam generators  
13 during the last opportunity in 1997.

14 We feel that any one of the six reasons provides  
15 amply justification for replacing the steam generators.  
16 Combined, they provide irrefutable, overwhelming evidence of  
17 the absolute need for the replacements.

18 We would like to now go through each of the six  
19 items in a little more detail, and Jim Riccio from Public  
20 Citizen will be addressing the first item.

21 MR. RICCIO: Good afternoon, my name is James  
22 Riccio, I am with Public Citizen's Critical Mass Energy  
23 Project. My task this afternoon is to brief you on the  
24 history of steam generator tube failures here in the United  
25 States and to demonstrate why we believe this history

1 indicates that the NRC should not allow Indian Point 2 to  
2 restart unless and until it replaces the steam generators.

3 While the economics of steam generator replacement  
4 are questionable and may place the future operation of  
5 Indian Point 2 in jeopardy, this is not a concern of this  
6 panel, nor should it be a concern of this agency. Steam  
7 generator tube degradation has already contributed to early  
8 retirement of several nuclear power plants, including Trojan  
9 in Oregon, Maine Yankee and the Zion reactors in Illinois.

10 Although originally designed to last the life of  
11 the plant, steam generators have been replaced at nearly two  
12 dozen nuclear power plants since 1980. Steam generator tube  
13 degradation is not only a financial risk to the utility,  
14 but, more importantly, a safety risk to the surrounding  
15 communities.

16 When degraded steam generator tubes go undetected,  
17 they may break, initiating a potentially disastrous sequence  
18 of events. The rupture of as few as 10 steam generator  
19 tubes can result in the meltdown of the reactor fuel rods,  
20 potentially releasing catastrophic amounts of radiation into  
21 the surrounding communities.

22 Unfortunately, the NRC staff continues to find  
23 that cracks in the steam generator tubes may go undetected  
24 40 to 60 percent of the time. In 1992 memo which had been  
25 withheld from public disclosure, NRC's former Director of

1 Nuclear Reactor Regulation reported that steam generator  
2 tube rupture events appear to be unavoidable.

3 According to the NRC, spontaneous tube ruptures  
4 have occurred at a rate of approximately one every two years  
5 for the last 20 years, while tube failures which were  
6 incipient, and, therefore, self-identifying through  
7 excessive steam generator tube leakage prior rupture have  
8 occurred at a rate of approximately one a year.

9 As Sam Collins pointed out in his last briefing to  
10 the Commissioners, the fact that you hadn't burst a steam  
11 generator tube since '93 was not a reason for confidence.  
12 And I think the event at Indian Point points that out.

13 Our review of the following history will show that  
14 NRC regulation has been unable to adequately address the  
15 issue of steam generator tube ruptures. The nuclear  
16 industry's efforts to detect potential tube ruptures have  
17 been ineffectual. The steam generator tube ruptures to-date  
18 have shown that the myriad causes of steam generator tube  
19 degradation have gone unchecked, that inspection methods are  
20 insufficient to preclude further ruptures, and that tube  
21 rupture is often accompanied with degradation to other  
22 tubes, raising the possibility of a multiple tube rupture.

23 And I will try to go through this quickly. In  
24 1975, the U.S. nuclear industry experienced its first steam  
25 generator tube rupture at Point Beach Unit 1 in Wisconsin.

1 That steam generator rupture with less than five years of  
2 operation. Subsequent inspection revealed that 127 tubes  
3 had degraded wall thicknesses greater than 60 percent. That  
4 is in violation of NRC standards. These are the same types  
5 of steam generators that are in Indian Point, made of the  
6 alloy-600.

7 In '76, the Surry reactor at Williamsburg,  
8 Virginia experienced the second steam generator tube  
9 rupture. The steam generator tube rupture occurred with  
10 less than four years of operation. Subsequent inspection  
11 revealed a 4.5 inch crack. Four of the other pulled tubes  
12 revealed cracking that was undetectable with inspection  
13 methods that were available at the time.

14 The NRC in 1978 finally designated steam generator  
15 tube integrity as an unresolved safety issue. The following  
16 year, Prairie Island, near Minneapolis, experienced a steam  
17 generator tube rupture.

18 And I am actually going to ask for a point of  
19 clarification. In the NRC's 1979 Information Notice 7927,  
20 they seem to indicate that the Doel reactor in Belgium had  
21 several tubes rupture. I have been unable to confirm that,  
22 but that is what your Information Notice says. So I would  
23 at least like the NRC to tell us whether there has been a  
24 multiple tube rupture at a reactor outside of the United  
25 States, because your Information Notice seems to indicate

1 that, although your other documents don't.

2 Basically, the event at Prairie Island released 30  
3 curies of radiation into the environment. It was caused by  
4 loose parts rattling around in the steam generator.

5 In '82, the reactor near Rochester experienced a  
6 spontaneous rupture, again because of loose parts. The  
7 rupture occurred with less than five years of operation.  
8 The inspection in April of 1981 revealed eddy current  
9 indications that were not interpreted as needing plugging.  
10 The accident released approximately 90 curies of radiation  
11 into the environment.

12 In 1982, Con Ed sued Westinghouse over its steam  
13 generators. Eventually, every utility, with the exception  
14 of the Tennessee Valley Authority, that has purchased a  
15 Westinghouse reactor has subsequently sued the corporation  
16 over problems with their steam generators.

17 In '84, Fort Calhoun, near Omaha, Nebraska,  
18 experienced another spontaneous rupture. Reevaluation of  
19 the data from the inspection revealed a 99 percent  
20 through-wall defect where the tube eventually ruptured.

21 In 1987, North Anna, near Fredericksburg,  
22 experience another spontaneous tube rupture. The plant  
23 technical specifications did not require much inspection of  
24 the area that eventually ruptured because it was on the cold  
25 leg side of the steam generator. Thus, in the previous

1 inspection, only 13 percent of the tubes in that area were  
2 inspected. The tube that eventually ruptured was not among  
3 that 13 percent.

4 In 1988, Commissioner Kenneth Rogers acknowledged  
5 that multiple tube ruptures can lead to the meltdown of the  
6 reactor. This is at the Regulatory Information Conference  
7 in 1988, and, basically, I have been tracking this ever  
8 since. Basically, he told us that the concern is with  
9 multiple tube failures, common mode failures. For example,  
10 such failures could come about by having essentially uniform  
11 degradation of the tubes, degradation that would decrease  
12 safety margins so that, in essence, we have a loaded gun, an  
13 accident waiting to happen.

14 I would submit that continuing to run IP2's aged  
15 steam generators is basically walking us into a scenario  
16 that the former Commission pointed out in 1988.

17 Also, in 1988, the NRC issued Notice 8831, steam  
18 generator tube rupture analysis deficiency, acknowledging  
19 that if a break in the location -- if the break location  
20 became uncovered, a direct pathway might exist for fission  
21 products to escape into the atmosphere.

22 The licensee concluded that the off-site dose  
23 consequences basically were in violation of their updated  
24 Final Safety Analysis Report.

25 In 1988, Indian Point 3, located 35 miles from New

1 York City, experienced an incipient tube rupture. They had  
2 about a 120 gallon per hour leak that developed over a  
3 two-and-a-half hour period. The leakage basically was seven  
4 times the technical specifications required by NRC.

5 In '89, McGuire Unit 1, near Charlotte, North  
6 Carolina, also experienced a steam generator tube rupture  
7 after only eight years of operation. This was caused by a  
8 different aging mechanism known as stress corrosion  
9 cracking. It also involved multiple sites along the steam  
10 generator tube.

11 Prior to the rupture, primary-to-secondary leak  
12 rate had been low and the rupture released approximately 30  
13 curies of radiation into the environment.

14 The following year, Beaver Valley Unit 2, near  
15 Pittsburgh, experienced incipient tube rupture due to wear  
16 by loose parts, again, loose parts. The subsequent  
17 inspection revealed that the loose parts had removed 97  
18 percent of the tube wall, and that three adjacent tubes were  
19 also damaged with wear between 62 and 97 percent  
20 through-wall. Okay. That is where we are looking at a  
21 multiple tube rupture. You have got one tube that went and  
22 you have others that were degraded as much as 97 percent.

23 And I will just mention that in 1990 Duke also  
24 sued Westinghouse. And the reason I bring this up is  
25 because it also shows that Westinghouse, since 1964, had

1 been hiding steam generator tube defects, and I just won't  
2 go into that at this point.

3 Also, in '90, Maine Yankee, near Bath, Maine,  
4 experienced an incipient tube rupture. The licensee's staff  
5 reanalyzed their steam generator data in 1988 and found that  
6 indications that were the precursor of the tube had been  
7 overlooked.

8 In 1991, the ACRS wrote a letter to Chairman  
9 Sellin stating that the sudden rupture of steam generator  
10 tubes due to a transient, such as a steam line break or a  
11 seismic event, needed to be precluded. That was in 1991, it  
12 still has not been accomplished.

13 In 1992, McGuire and Arkansas 1 both experienced  
14 incipient ruptures. In both instances, inspections in the  
15 previous year missed the indications of tube wear that  
16 exceeded 40 percent through-wall threshold. Again, that is  
17 in excess of NRC's tech specs.

18 I would also point out that at one point Mr.  
19 Russell, former -- I believe it was EDO, stated that these  
20 all constituted violations of NRC regulations, but they just  
21 hadn't taken enforcement against the utilities.

22 In 1992, precipitating that Portland Oregon's --  
23 Portland General Electric's decision to close Trojan, Mr.  
24 Hopenfeld filed a Differing Professional Opinion regarding  
25 NRC's decision to allow nuclear reactors to operate with

1 seriously degraded steam generator tubes. The issue was  
2 that a main steam line break outside containment could  
3 trigger a multiple steam generator tube failure, which would  
4 then result in a core melt because of depletion of the  
5 coolant inventory.

6 NRC documents leaked to the Union of Concerned  
7 Scientists at that time revealed that the risk of meltdown  
8 at Trojan was 300 times greater than NRC safety goals  
9 permit. Trojan was eventually shut down and PG&E sued  
10 Westinghouse rather than replace the steam generators.

11 In 1992, in a memo which had been withheld from  
12 public disclosure, NRC's Director of Nuclear Reactor  
13 Regulation reported that steam generator tube events appear  
14 to be unavoidable. The memo also points out that NRC  
15 regulation is less stringent than other countries. Quote,  
16 "Regarding steam generator tube inspection programs, it is  
17 clear that the U.S. lags behind major European countries in  
18 terms of scope of inspection. Further, the leak rates  
19 allowed were reported to be consistently much lower than  
20 those allowed by U.S. technical specifications."

21 Basically, we are not protecting our people as  
22 well as the Europeans are protecting theirs.

23 In 1993, Palo Verde Unit 2, near Phoenix,  
24 experienced a spontaneous tube rupture after only seven  
25 years of operation. A month prior to the tube rupture, the

1 licensee had observed an increase trend in the radiation  
2 monitoring activity. NRC's augmented inspection team later  
3 determined that the licensee's monitoring method had been  
4 inaccurate and had caused the leak rate to be underestimated  
5 by a factor of 10. Again, the indicator that you are moving  
6 towards tube rupture was missed.

7 In 1994, the ACRS this time wrote to the Executive  
8 Director of Operations, Mr. James Taylor, noting that Mr.  
9 Hopenfeld's Different Professional Opinion appears to  
10 warrant further consideration. This issue has not yet been  
11 resolved. Again, that was '94. It still has not been  
12 resolved.

13 Again, in '94, Maine Yankee was shut down in July  
14 due to steam generator tube cracks that had been present  
15 since 1990 but had gone undetected. Maine Yankee Atomic  
16 Power Company claimed that even with the circumferential  
17 cracks, the steam generator tubes could have withstood a  
18 worst case accident. Whether Maine Yankee's assertions were  
19 true, or, in fact, Maine Yankee had violated NRC  
20 requirements for steam generator tube integrity has never  
21 been determined by this agency.

22 After attempting to unsuccessfully find a buyer  
23 for Maine Yankee, the utility eventually retired the  
24 reactor.

25 In 1995, NRC issued another Generic Letter

1 basically based on their findings at Maine Yankee. Later  
2 than year the NRC issued a following Generic Letter that  
3 allowed for an alternative repair criteria. This  
4 alternative repair, based on voltage based repair, basically  
5 allows a greater number of tubes with crack indications to  
6 remain in service.

7 So, let's get this straight. We are finding that  
8 NRC and the industry are unable to basically manage, detect  
9 or prevention steam generator tube ruptures, yet we are  
10 going to allow a greater percentage of the cracks to stay in  
11 service. That is unconscionable.

12 In 1995, Ms. Connie Hogarth filed a 2.206 petition  
13 with the Commission requesting that the operating license  
14 for Indian Point 2 and 3 be suspended until they completed  
15 the questions requested in the Generic Letter 95-03.

16 The following year, NRC denied Ms. Hogarth's  
17 petition stating that the steam generator inspections  
18 required by their technical specifications at both Indian  
19 Point 2 and 3 are required to monitor primary-to-secondary  
20 leakage to ensure that in the event of a steam generator  
21 tube beginning to leak, operators will be able to bring the  
22 plant to a depressurization condition before the tubes  
23 rupture.

24 I would submit that, and I believe this was Mr.  
25 Russell's conclusion, that his conclusion was wrong and that

1 the event of February 15th proves that it was wrong. And I  
2 would suggest that if the agency intends to us this same  
3 rationale for allowing Indian Point 2 not to replace their  
4 steam generators, that they at least go a little bit further  
5 and provide some ample justification.

6 The NRC acknowledges that stress corrosion  
7 cracking at Indian Point 2 had been first detected in the  
8 '93 refueling outage, however, Indian Point 2 steam  
9 generators showed signs that circumferential cracking had --  
10 those puts had supposedly been removed from service. Well,  
11 three years later -- or four years later, you burst one of  
12 those tubes.

13 Basically, in '97, NRC issued an Information  
14 Notice on the potential inconsistency in the assessment of  
15 radiological consequences from main steam line break. It  
16 seems that Braidwood had found that they hadn't been  
17 accurately characterizing the off-site consequences for  
18 multiple tube rupture.

19 The notice also acknowledged that other licensees  
20 had made the same mistake in their license amendment  
21 requests.

22 The following year the NRC killed plans for a  
23 steam generator rulemaking and a proposed Generic Letter,  
24 instead deferring to the nuclear industry and NEI's document  
25 97-06. The staff had been leaning toward rulemaking and the

1 Generic Issue because reactor technical specifications were  
2 not adequate to ensure the safety of the public from new and  
3 more severe forms of steam generator tube degradation.

4 In 1999, NRC staff granted Indian Point 2 a  
5 license amendment that allowed Consolidated Edison to forego  
6 steam generator tube inspections required by their technical  
7 specifications. This is supposed to allow a one time  
8 exemption for a 20 month period interval, and, basically,  
9 that was just a one shot deal.

10 I would submit that that wasn't the wisest thing  
11 this Commission has ever done. What happened in the  
12 following year is that Indian Point 2 was forced to shut  
13 down on February 15th due to the steam generator tube  
14 rupture. NRC later acknowledged that both Con Ed and the  
15 NRC staff had mishandled the '97 steam generator tube  
16 inspection and that the 1999 license amendment had been  
17 based on faulty analysis.

18 How this agency can allow 80 nuclear power plants  
19 to forego steam generator tube inspection is beyond me.  
20 Indian Point 2 is not alone in this regard. The NRC has  
21 allowed many other reactors to skip inspections through  
22 several regulatory loopholes.

23 Does the NRC really want to gamble with the  
24 prospect of the first multiple tube rupture in the United  
25 States occurring only 35 miles from Manhattan? And just to

1 give you an idea of where that is, I brought a little prop  
2 for you. There is a picture of Indian Point. Those are the  
3 concentric rings around there representing both the plume  
4 exposure pathway, the emergency planning zone and everything  
5 in between. I submit that if we are going to experiment  
6 with public health and safety, it shouldn't be done in a  
7 suburb of Manhattan.

8           Considering the steep cost of steam generator  
9 replacement and the uncertainty of recouping the investment  
10 in a competitive market, Con Ed may not decide to replace  
11 the steam generators and either attempt to sell or retire  
12 the reactor. However, the prospect of a nuclear reactor  
13 limping along with seriously degraded steam generators is  
14 neither in the nuclear utility's interest, nor in the  
15 interest of public health and safety.

16           That is why I am asking that the NRC not allow Con  
17 Ed or any other owner to restart Indian Point 2 unless the  
18 steam generators have been replaced.

19           I thank you for your time and consideration of  
20 this most important issue. And I hope it revealed to you  
21 that, basically, this agency has been unable to manage steam  
22 generator tube degradation, that the efforts to identify the  
23 cracks in the tubes have not precluded ruptures, and that,  
24 basically, we can't rely upon the regulations that are in  
25 place to protect the public health and safety at this point.

1 Thank you.

2 MS. BLACK: Would you mind if I asked you a  
3 question?

4 MR. RICCIO: Shoot.

5 MS. BLACK: The point you made before the last  
6 one.

7 MR. WIENS: Identify yourself.

8 MS. BLACK: Suzanne Black. Thank you. Indian  
9 Point, when it was forced to shut down because of the steam  
10 generator tube rupture, NRC later acknowledged that both Con  
11 Ed and the NRC staff had mishandled the 1997 steam generator  
12 tube inspection and that the 1999 license amendment was  
13 based upon faulty analysis. Are you talking about the  
14 Research memo with that?

15 MR. RICCIO: Yes, I am talking -- basically, the  
16 things you guys put on your web site is what I am  
17 referencing, as well as the New York Times story.

18 MS. BLACK: And you believe that that Research  
19 memo said that the basis for the extension was unsound?

20 MR. RICCIO: That is what the New York Times came  
21 -- that is the conclusion the New York Times came to.

22 MS. BLACK: Okay. Thank you.

23 MR. LOCHBAUM: Moving on to the second reason we  
24 think the steam generators need to be replaced, and I will  
25 go pretty quickly here to make up some time.

1 MR. RICCIO: Sorry.

2 MR. LOCHBAUM: No problem. We think that  
3 radiation workers -- radiation exposures to workers will be  
4 reduced if the steam generators will be replaced. In the  
5 late '80s, New York Power Authority replaced its steam  
6 generators at the Indian Point 3 facility, which is close to  
7 the Indian Point 2 facility. Prior to that replacement,  
8 NYPA said that they were encountering radiation exposures of  
9 approximately 269 persons rems per year on steam generator  
10 related activities and the replacement allowed those  
11 exposures to drop.

12 Con Ed reports that they are experiencing  
13 approximately 40 person rems per steam generator inspection  
14 at Indian Point 2.

15 The contaminated steam generators are a source of  
16 the radiation. If you replace with radioactively clean  
17 steam generators, both the scope of the tube inspections and  
18 the dose rates should be reduced, resulting in lower  
19 exposures to plant workers.

20 The third reason for replacement is that safety  
21 margins will be significantly increased by improved heat  
22 transfer capabilities. Six years ago, Con Ed sought  
23 permission to sleeve degraded tubes instead of plugging  
24 them. They based that request, in part, on the fact that  
25 sleeving will not result in the loss of heat transfer area

1 that is associated with plugging a tube.

2 Well, if you replace the steam generators with  
3 brand new steam generators that don't have more than a  
4 thousand plugged tubes, you will recover all of the lost  
5 heat transfer area, and that is a far, far better thing than  
6 sleeving.

7 The fourth item is that safety margins will be  
8 significantly increased by reducing dependence on operator  
9 actions. Unlike all -- most other, not all other, most  
10 other design basis actions, the control room operators have  
11 actions they must take following a steam generator tube  
12 rupture. Following most design basis accidents, the  
13 operator's role is to monitor plant conditions and verify  
14 that automatic actions have been taken.

15 Following steam generator tube rupture, there are  
16 actions the operators must take because they are not going  
17 to be taken automatically. Therefore, the challenge -- the  
18 operator's performance plays a much greater role in  
19 protecting the public health and safety than during other  
20 accidents.

21 The Idaho National Engineering Laboratory looked  
22 at steam generator tube ruptures in the past, prior to the  
23 most recent one at Indian Point 2, and said, "The success of  
24 the reactor operators has been mixed, some were slow to  
25 understand what was occurring, slow to start reducing power,

1 and slow to isolate the defective steam generator." As a  
2 result, they said, "more radioactive material was released  
3 to the environment than necessary."

4 Indian Point 2, just last year, the NRC staff  
5 indicated was -- the operators were a little bit slow to  
6 respond to an event. The NRC said, "The inspectors reviewed  
7 Con Edison's response to a rod insertion event. The  
8 operators did not recognize the event for approximately two  
9 hours because of inadequate control board monitoring,  
10 incorrect record-keeping, and inadequate audible cues that  
11 automatic control rod motion was occurring."

12 Replacing the steam generators will reduce the  
13 degradation level of the tubes and, in turn, will reduce the  
14 likelihood of a tube rupture being encountered. By taking  
15 action to reduce the likely challenge to the operators, the  
16 public will be better protected.

17 The fifth reason for replacement is that safety  
18 margins will be increased by clarifying whether Con Ed  
19 conforms with accepted industry practice.

20 The NRC created a web site following the February  
21 15th event that listed a lot of information relevant to that  
22 event. On that they said that, "In 1997, the commercial  
23 nuclear industry committed to following NEI 97-06." Since  
24 that was an IP2 web page, we assume that Con Ed is one of  
25 the plants that is committed to following this guidance.

1           But I have a box in my office of stuff I obtained  
2 from the Public Document Room and I reviewed every piece of  
3 paper in that document. I didn't find one reference from  
4 Con Ed saying that they indeed comply with, conform with, or  
5 know about NEI 97-06. Instead, I found stuff like in the  
6 1999 response -- excuse me, the 1998 submittal that Con Ed  
7 made, they said, "The Indian Point Unit No. 2 steam  
8 generator inservice inspection program is based on the  
9 guidance contained within Regulatory Guide 1.83." That is a  
10 1975 document. There is no guidance or reference at all to  
11 the 1997 NEI document.

12           There is also some reference from Con Ed to Reg.  
13 Guide 1.121. Still no reference to 97-06. So the NRC seems  
14 to think that they are following 97-06. I don't see that  
15 Con Ed indicates that that is what they are following.

16           MS. BLACK: I would just to get a point of  
17 clarification here. I will check that date, because I don't  
18 think 1997 is the correct date, and I will look at the web  
19 site and make sure that it is corrected if it does say --

20           MR. LOCHBAUM: Which date are you referring to?

21           MS. BLACK: The date where the licensee committed,  
22 all the industry committed to 97-06. As I understand it, it  
23 was maybe early this year.

24           MR. LOCHBAUM: Okay. That is what the web site  
25 says.

1 MS. BLACK: So, but I -- it says '97, okay, I will  
2 check that.

3 MR. LOCHBAUM: So we thing that replacing the  
4 steam generators will provide Con Ed and the NRC the  
5 opportunity to get on the same page as to what is the  
6 appropriate guidance.

7 The sixth, and not the final, but the sixth reason  
8 for replacement is the financial analysis, and that is way  
9 over my head, so I will turn it over to Ed Smeloff to  
10 address that point.

11 MR. SMELOFF: I am Ed Smeloff, and I am the  
12 Executive Director at the Pace Law School Energy Project,  
13 which is based in White Plains, New York. The Energy  
14 Project is a non-profit research and advocacy organization  
15 supporting policies for sustainable energy solutions.

16 Before joining the Energy Project, I served for 11  
17 years on the Board of Directors of the Sacramento Municipal  
18 Utility District which owns a nuclear power plant. In that  
19 capacity, I testified twice before the Commission.

20 I recently attended two public meetings that were  
21 organized by the NRC staff in Westchester County. And at  
22 those meetings, NRC staff have repeatedly stated that a  
23 decision to replace the steam generators at Indian Point 2  
24 is a business decision and it is up the licensee,  
25 Consolidated Edison, to make that decision based on its own

1 criteria.

2 I will demonstrate to you in the following  
3 testimony that the economic regulatory policies in New York  
4 are perverse and create incentives that encourage  
5 risk-taking in the operation of the nuclear facility. The  
6 structural perversity of economic regulatory policy in New  
7 York adds to the NRC's burden to assure that the licensee  
8 maintains the plant's structural integrity and operates the  
9 facility safely.

10 Now, given the recent incident at the plant, and  
11 clear indications of the initiation of stress corrosion  
12 cracking in the steam generator tubes at Indian Point, the  
13 NRC must not permit Con Ed to restart the plant unless the  
14 steam generators are replaced.

15 Ms. Black, you asked Mr. Riccio about his  
16 assertion about the unsoundness of the inspections that were  
17 conducted by Con Ed, and the Office of Nuclear Regulatory  
18 Research did put on the web page I think some clear evidence  
19 that that is true, and I just will quote just one, two  
20 sentences here.

21 It is from a memo that was sent entitled "Review  
22 of safety evaluations regarding steam generator tube  
23 inspection interval." And it says, "The licensee did not  
24 conduct a thorough operational assessment with respect to  
25 estimating the crack distribution at the beginning of Cycle

1 14. They did not determine the number of new cracks that  
2 would initiate during the cycle. This number would likely  
3 be greater than was experienced during the previous cycle.  
4 Since the phenomenon was still relatively new at IP2, they  
5 did not apply crack growth rates to the undetected cracks  
6 and the newly initiated cracks, so they could not -- they  
7 could -- so that they could estimate the crack distribution  
8 at the end of Cycle 14."

9 Therefore, there was no good basis for estimating  
10 the structural and leak integrity at the end of Cycle 14.

11 MS. BLACK: If I may, my question was about the  
12 amendment that gave them the extra year between -- I think  
13 the information you are referring to is --

14 MR. SMELOFF: This was the '97 inspection.

15 MS. BLACK: Right. Right.

16 MR. SMELOFF: But the basis for granting them the  
17 waiver and then inspecting in '99 is based, in part, on the  
18 inspections that occurred in 1997.

19 MS. BLACK: Okay. Well, I am not argue with you.  
20 I was just pointing out that I didn't think that was the  
21 basis for the amendment, but for the inspection, the  
22 original inspection. But I don't want to argue because I am  
23 not that familiar with the information.

24 MR. SMELOFF: Let me go on to some more  
25 information about the economics, and I think increased

1 burden that the Commission has, given the incentives, what I  
2 call the perverse incentives, in New York. In New York, Con  
3 Ed's electric rates are governed by a restructuring  
4 settlement agreement that was entered into by the utility,  
5 the state Public Service Commission and several other  
6 parties. That agreement freezes the portion of electric  
7 rates that are associated with the recovery of Con Ed's  
8 investments in Indian Point 2 and other facilities.

9           However, it does permit adjustments to Con Ed's  
10 rates based on the amounts and costs of power it purchases  
11 in the wholesale power market. This so-called fuel  
12 adjustment clause permits Con Ed to pass through to  
13 ratepayers almost all the costs of power purchased during  
14 forced outages at Indian Point 2.

15           This set of incentives encourages Con Ed to defer  
16 capital investments and places the risk of forced outages at  
17 the plant on Con Ed's ratepayers. This is what I call  
18 heads-I-win, tails-you-lose regulation.

19           It could be argued that Con Ed is still at risk if  
20 it can be proved that they acted imprudently in deferring  
21 the replacement of steam generators and that this decision  
22 resulted in the forced outage that caused the need to  
23 replace large quantities of replacement power. However, Con  
24 Ed can, and we expect will argue that its actions are  
25 prudent because it has always acted with NRC oversight and

1 that the NRC approved the decision not to replace the steam  
2 generators in 1997 and to waive an inspection on them in  
3 1999.

4 Now, let show you specifically and concretely why  
5 the decision to defer replacing the steam generators in 1997  
6 was in Con Ed's economic interests but not in the public's  
7 interest from an economic point of view. Con Ed has stated  
8 in its 1998 annual report that the cost of replacing Indian  
9 Point's steam generators with the ones that have been in  
10 storage since 1987 is approximate -- is \$100 million.

11 For the purpose of this analysis, I have assumed  
12 that that is capital cost that was deferred in 1997 when Con  
13 Ed decided not to replace the steam generators. To  
14 calculate the value of deferral to Con Ed, I have used an  
15 inflation rate of 2.75 percent and a discount rate of 10  
16 percent. Using those assumptions, the present value of a  
17 three-year deferral, that is assuming that the replacement  
18 would occur this year, in 2000, is \$21.5 million. The  
19 present value of a seven-year deferral, that is until 2004,  
20 is \$38 million. Please note that the benefits of deferring  
21 this investment accrue to Con Ed's shareholders.

22 The economic risk of the decision to defer the  
23 replacement of the steam generators in 1997 was that a steam  
24 generator tube would break and that Con Ed would have to buy  
25 replacement power to meet its customers' demand for

1 electricity. As we now know, that is indeed what happened.  
2 Con Ed has stated publicly that the cost of replacement  
3 power is \$600,000, approximately \$600,000 per day. For a  
4 90-day outage, that is one lasting until May 15, the cost  
5 will be \$54 million. Discounting that back to 1997 gives a  
6 present value of \$43.3 million. That is the amount of money  
7 that would have been invested in 1997 at a 10 percent  
8 interest rate to be able to purchase 90 days worth of  
9 electricity at the wholesale rate in 2000.

10 This analysis shows that, from a societal  
11 perspective, combining Con Ed's shareholder and ratepayers'  
12 interest, a loss of \$21.8 million resulted, assuming a  
13 three-year deferral in steam generator replacement, and even  
14 a loss, assuming a seven-year deferral, the loss of a  
15 seven-year deferral would be \$5.3 million.

16 What is perverse about this situation is that the  
17 benefits and losses associated with Con Ed's gamble are  
18 disproportionate. The shareholders reap the benefits of the  
19 deferral while the ratepayers are burdened with the loss  
20 associated with the cost of replacement power.

21 Another way of looking at this is that in 1997,  
22 Con Ed flipped a coin knowing that if it came up heads, they  
23 won, and if it came up tails, the ratepayers lost. With the  
24 game rigged in this way, Con Ed has a very strong incentive  
25 to defer replacing the steam generators for as long as it

1 can get away with it.

2 This perverse set of economic incentives places an  
3 enormous burden and duty on the Nuclear Regulatory  
4 Commission, because what we are talking about here is not  
5 just an economic game where tens of millions of dollars are  
6 at stake. It is not just a business decision whether the  
7 steam generators at Indian Point 2 are replaced. What is at  
8 stake here is the public health and safety of the citizens  
9 of Westchester, Putnam, Rockland and Orange counties in New  
10 York.

11 I am going to end my portion of the presentation  
12 to you by pointing out that the elected officials of these  
13 counties understand the importance of replacing the steam  
14 generators. I would like to enter into the record, and I  
15 have passed out to you, and if you don't have a copy, I will  
16 give you another one, the names and positions of 30 elected  
17 officials, Republicans, Democrats and independents who have  
18 called upon the NRC to assure that Indian Point 2 does not  
19 restart until the steam generators are replaced. Thank you.

20 MS. ADENSAM: I am Elinor Adensam with NRR. Just  
21 a point in clarification, I heard you say that the \$100  
22 million was the Con Ed estimate of the cost to replace the  
23 steam generators. Did that include the capital cost of the  
24 replacement steam generators themselves, or was that in  
25 addition?

1 MR. SMELOFF: That is in addition. The cost of  
2 the steam generators has already been placed in the rate  
3 base at the time that Con Edison purchased them.

4 MS. ADENSAM: Just it was a point of  
5 clarification. Okay. Just a point of clarification.

6 MR. RICCIO: I think it is important to get that  
7 point into the record.

8 MR. SMELOFF: It is. The cost of them was around  
9 \$34 million, it was rate based and that has already been  
10 collected from ratepayers. So the steam generators are  
11 already paid for.

12 MS. ADENSAM: Thank you.

13 MR. LOCHBAUM: I would like to turn now to the  
14 second item of our petition and that is the resolution of  
15 Dr. Hopensfeld's Differing Professional Opinion. For the  
16 sake of time, I am going to skip to page 14 of the  
17 presentation and return to a point that Jim Riccio made  
18 during his presentation, and that is the Director's decision  
19 that was issued in June of 1996 regarding Indian Point 2 and  
20 Indian Point 3 steam generators.

21 In that Director's decision, it said, "In the  
22 NUREG-0844 assessment, the staff concluded that the  
23 probability of simultaneous tube ruptures was small  
24 (approximately 10E to the minus 5th) and the risk resulting  
25 from their releases during steam generator tube ruptures

1 with loss of secondary system integrity was also small.

2 "I further informed the petitioner that her  
3 request for a public meeting to explain the denial of her  
4 request for license suspension was denied, primarily because  
5 the NRC assessment of risk associated with steam generator  
6 tube rupture events has already been articulated in public  
7 documents."

8 That was issued in June of 1996. Also issued in  
9 1996, in April of 1996, was an NRC document, NUREG/CR-6365,  
10 issued in April of 1996. Table 21 of that document lists  
11 the frequency for rupturing a various number of number of  
12 tubes for various initiating events, design basis events.  
13 It has four -- five columns, three of which give you the  
14 frequency or the probability of one tube failing, two to 10  
15 tubes failing, or more than 10 tubes failing for the various  
16 initiating events, in addition to the total tube frequency  
17 -- tube rupture frequency.

18 For loss of normal feedwater, which is a fairly  
19 routine event, the probabilities calculated by Idaho  
20 National Engineering Laboratory are 9.5E to the minus 4 for  
21 both one tube and two to 10 tubes failing, and 2.0E to the  
22 minus 5th for more than 10 tubes failing, for a total  
23 frequency of 1.9E to the minus 3rd.

24 Then it goes on down the list for a bunch of  
25 different initiating events. In every case, the probability

1 of up to 10 tubes failing is the same as the probability of  
2 a single tube failing. And that is the heart of Dr.  
3 Hopenfeld's concerns, he is concerned about multiple steam  
4 generator tube ruptures, and he has been told repeatedly  
5 that that is not likely to happen, is incredible, or the  
6 probability is so small that it needs to be -- can be  
7 neglected, and has been neglected.

8 Well, this report in 1996 seems to support Dr.  
9 Hopenfeld's concerns, and we are somewhat amazed that the  
10 Director's decision didn't even mention or articulate why  
11 this information was not included in the denial. We think  
12 the information was relevant then, is relevant today,  
13 because it clearly supports Dr. Hopenfeld's concerns about  
14 multiple tube failures.

15 The reason it is relevant is that Con Ed, in its  
16 safety analyses, has defined a steam generator tube rupture  
17 to be limited to the failure of a single tube. Therefore,  
18 Con Ed's safety analysis may not be bounding, and the  
19 associated implementing procedures, such as operator  
20 response times to steam generator tube rupture events may be  
21 non-conservative.

22 The petitioners seek resolution of Dr. Hopenfeld's  
23 DPO to determine whether Indian Point Unit 2 is operating  
24 outside its design basis, a condition that is clearly  
25 prohibited by federal regulations.

1 NRC often tells the public that its first  
2 objection is to maintain safety. If we are to accept this  
3 without appending "on the back burner" to it, the NRC staff  
4 has to expeditiously resolve Dr. Hopenfeld's concerns. They  
5 were raised initially in December of 1991, George Bush was  
6 the President back in 1991.

7 In 1992 Westinghouse submitted an application for  
8 the AP600 standard nuclear reactor design, a design for  
9 which no plant -- or no utility in the United States has  
10 indicated that it would like to build one. That was  
11 approved by the NRC in September of 1998.

12 In April of 1998, BG&E submitted a license renewal  
13 application to NRC for Calvert Cliffs, seeking to operate  
14 that plant for 20 more years. That plant, by the way, has  
15 steam generators. The NRC established a goal of 30 months  
16 for the review and approval, or decision, on this license  
17 application, and they beat that goal by seven months and  
18 were able to approve the license application in only 23  
19 months. And yet Dr. Hopenfeld's concerns remain unresolved.

20 That is simply unacceptable. They have to be  
21 resolved, in our view.

22 Turning now to Petition Item 3, KI table  
23 distribution or stockpiling. I would like at this time to  
24 turn, if it is agreeable to Peter, to turn the platform over  
25 to Peter to present his concerns.

1 MR. CRANE: Is there someone who can --

2 MR. RICCIO: Would you like a chair?

3 MR. CRANE: For the record, raise with OGC two  
4 weeks ago the fact that I planned to be here, just to make  
5 sure that from an ethical standpoint there was nothing wrong  
6 with it. They saw nothing wrong with it. I spoke to Trip  
7 Rothschild, Assistant General Counsel, to John Szabo, Senior  
8 Ethics Counselor, so that may explain my heat, for which I  
9 apologize, at hearing a legal objection to my being here.

10 MS. BLACK: And I am sorry, it wasn't that you  
11 were permitted to be here and speak as an ex-NRC employee,  
12 it was just the technicality of we can't let one member of  
13 the public speak, as opposed to all members of the public  
14 speak. But if you are there speaking on their behalf, then  
15 that is fine.

16 MR. CRANE: Well, I think I made clear in what  
17 connection I am speaking here.

18 MR. WIENS: Would you identify yourself?

19 MR. CRANE: Oh, I'm sorry. Yes. Actually, that  
20 is in here.

21 Good afternoon. My name is Peter Crane, I used to  
22 work here. I started at NRC 25 years ago this week, as  
23 legal assistant to Commissioner Marcus A. Rowden. From 1977  
24 to 1999, except for a year spent as an administrative judge  
25 in the Central Pacific, I was a lawyer in OGC. I retired

1 last year, and these days my profession is history.

2 I will be brief. First, I am not affiliated with  
3 any of the petitioner groups here today. I don't represent  
4 them, nor they me. They have asked me to speak to the  
5 generic issue of potassium iodide for thyroid protection and  
6 about the DPO process at NRC. It is up to them to draw  
7 whatever links they see to their petition.

8 My views on KI have been reasonably consistent  
9 since I filed my DPO in June 1989. Rather than reiterate  
10 them here, I have attached a copy of the statement I  
11 prepared for the Commission meeting of November 1997. The  
12 best part of that statement is the part I didn't write. It  
13 is from a letter to FEMA by Dr. Jacob Robbins, Scientist  
14 Emeritus at NIH and a world-renowned expert on thyroid  
15 cancer. He wrote:

16 1. The Chernobyl experience has shown us that  
17 thyroid cancer is indeed a major result of a large reactor  
18 accident, even when evacuation is carried out.

19 2. The Polish experience has shown us that large  
20 scale deployment of KI is safe.

21 3. The Three Mile Island experience has shown us  
22 that it is not easy to obtain a good supply of KI in an  
23 emergency.

24 4. The shelf life of properly packaged KI is  
25 extremely long.

1           5. The advantage of having a supply on hand for  
2 immediate use far outweighs its moderate cost.

3           6. The problems attendant on predistribution are  
4 immaterial for the matter of creating a stockpile.

5           7. No one question the ability of KI to protect  
6 the thyroid from radio iodine.

7           8. Even though KI administration before any  
8 exposure identification is deal, the Chernobyl experience  
9 also has shown us that the exposure can continue for days.  
10 Institution of KI blockade at any time in this period is  
11 beneficial.

12           In the 21 years since Three Mile Island, the NRC  
13 staff and the Commission have repeatedly arrived at sound,  
14 well-reasoned petitions on KI, only to abandon them. Four  
15 come to mind:

16           1. The Commission's announcement in 1979 that  
17 stockpiling of KI would be part of every emergency plan.

18           2. The staff's proposal in 1982 that the  
19 Commission approve a federal policy statement strongly  
20 backing KI.

21           3. The 1994 staff paper that said "it appears  
22 prudent to stockpile KI for limited populations located  
23 close to the operating nuclear power plants," and proposed  
24 that the NRC recommend to the states that they stockpile the  
25 drug.

1           4. The Commission's 1997 decision to back the  
2 recommendation of 17-agency committee that the federal  
3 government buy KI for any state that wanted it. In  
4 announcing the decision, the Commission said explicitly,  
5 "The NRC will provide the funding."

6           And you can see the NRC's web site for this press  
7 release dated July 1st, 1997, and they got the date right.

8           MS. BLACK: Yes.

9           MR. CRANE: So no one should accuse me of wanton  
10 Commission-bashing or staff-bashing, I approve of each of  
11 those positions. It is the capricious discarding of those  
12 positions that I can't agree with.

13           The Commission's flip-flop in April 1999 bears  
14 special examination. It was not grounded on the supposed  
15 dangers of KI, or any of the similar twaddle that the staff  
16 put forward in NUREG-1633, the 40-page technical assessment  
17 that managed to leave out the fact that KI was a medicine  
18 found "safe and effective" by the Food and Drug  
19 Administration. Instead, the April 1999 reversal was based  
20 on the argument that while KI could be useful, NRC didn't  
21 have the money to divert to new initiatives.

22           That's a dangerous line of argument to pursue, for  
23 it opens a Pandora's box of comparisons. This has begun  
24 already. For example, Susan Hiatt objected to a \$60,000 fee  
25 waiver to the owner of the Perry plant, saying that the same

1 money would have paid for all the KI that Ohio had counted  
2 on getting from the NRC. The agency replied that the two  
3 were unconnected.

4           Perhaps so. But will that argument hold up  
5 indefinitely? When it becomes a matter of justifying this  
6 or that foreign trip, costly perk, or a new set of plantings  
7 for NRC headquarters, are Commissioners prepared to argue to  
8 American parents, "It is not that we think it is unimportant  
9 to protect your children against thyroid cancer, we just  
10 think it is more important to use the money from your  
11 electric bills to pay for foreign travel, fancy mobile  
12 phones and new shrubbery."? Like it or not, that is what  
13 the Commission's April 1999 position boils down to.

14           Hey, folks, --

15           MR. WIENS: Excuse me. The people that are on the  
16 telephone, if you could put your phone on mute.

17           MR. CRANE: On the merits, all the most recent  
18 expert medical information tells us that the risks to the  
19 infant thyroid are even greater than previously though.  
20 Look at the March 15th issue of "Cancer," published by the  
21 American Cancer Society, which talks about the extreme risk  
22 to children under two. Look at the revised guidance from  
23 WHO. It is no secret that FDA is revising its guidance on  
24 KI in the direction of more aggressive intervention with KI,  
25 aimed at protecting the youngest children.

1           The staff has done a brilliant job of putting off  
2 the day of decision, like Penelope with her weaving in the  
3 "Odyssey." But after more than 20 years, enough is enough.  
4 In these two decades, the rest of the developed world has  
5 passed us by, leaving our children under-protected and the  
6 NRC's scientific reputation tarnished. I suggest to the  
7 NRC's new Chairman that the next time there is an  
8 international conference on radiation and thyroid cancer,  
9 like the one at Cambridge University in England in 1998, at  
10 which I spoke, he should go there, and ask the public health  
11 experts and nuclear regulators of other countries what they  
12 think of the NRC's handling of the KI issue. And if he  
13 can't go himself, he should send an assistant he trusts.

14           Let me turn now to the DPO process. It was  
15 studied twice, in 1990, under the direction of Paul Bird,  
16 and in 1994 by a group headed by Guy Arlotto. Their reports  
17 are well worth reading, as are the statements that were  
18 submitted to them. Perhaps because it is more recent, I  
19 remember Guy's better. It was good. It found problems and  
20 made recommendations, if I recall correctly, but nothing  
21 changed.

22           The first lawsuit I ever handled in OGC involved  
23 the Bailly plant in Indiana, and among other things, its  
24 Mark II containment. I mention the case because the DPO  
25 process reminds me a lot of the design of that containment.

1 The Mark II operated on the principle that if something went  
2 wrong, and a pipe break released steam, the increased  
3 pressure would force the steam into large pipes, downcomers,  
4 leading down through the floor into a pool of cold water.  
5 There the steam would condense, reducing the pressure and  
6 protecting against any release.

7 In much the same way, the DPO process contrives to  
8 pour cold water on the DPO and keep the problem safely  
9 inside the walls. The employee dutifully "works within the  
10 systems," thinking his or her concerns are getting a fair  
11 shake. Perhaps sometimes they are, but you couldn't prove  
12 it by my experience.

13 The DPO process is supposed to provide a quick  
14 resolution of employees' safety concerns. My DPO on KI took  
15 five years and was never fully addressed. Mr. Hopenfeld, if  
16 "Inside NRC" is correct, went 11 years without even getting  
17 a DPO panel named. I had never heard his name, and for all  
18 I know, he had never heard mine. I wonder how many of us  
19 there were, each with a DPO on its own slow boat to China.

20 In what way was my DPO unaddressed? I had said  
21 that existing KI policy was based in part on inaccurate and  
22 incomplete information provided to the Commission and the  
23 public at a November 1983 briefing. It is an easy matter to  
24 establish whether that assertion was valid. Anyone who  
25 spends an hour reading the transcript will know the answer.

1           But the DPO panel would not answer the question,  
2 and so the Director of the Office of Research rejected the  
3 panel's report. Did the panel go back and complete the job?  
4 No.

5           Commissioner McGaffigan tried in a November 1997  
6 Commission meeting to get an answer to the same question.  
7 He had no luck then, and I doubt he would have any greater  
8 success today.

9           The staff is supposed to work for the Commission.  
10 If a Commission can't get a straight answer to a simple  
11 question, what hope is there that some troublemaking DPO  
12 filer is going to get the staff to concede it made a  
13 mistake?

14           The NRC staff's managerial class is about as  
15 enthusiastic to find error on the part of its members, let  
16 alone deliberate error, as the police force of Prince  
17 George's County, Maryland. On paper, the DPO process sounds  
18 like a civilian review board. The reality is quite  
19 different.

20           So how is the Commission to know when the staff  
21 has dropped, or hidden, the ball?

22           When people like Mark Rowden and Joe Hendrie ran  
23 the NRC in the 1970s, they were Chairman back when for folks  
24 who are unfamiliar with the NRC, there were some checks and  
25 balances that don't now exist.

1           First, the Commissioners had the Office of Policy  
2 Evaluation to give them independent technical and policy  
3 advice. OPE wasn't infallible, but it often had valuable  
4 insights to contribute, and the very fact of its existence  
5 helped keep up the quality of the staff's work. As I  
6 recall, senior NRC staff management generally viewed OPE as  
7 a pain in the neck, with a habit of making comments and  
8 asking questions that the staff sometimes didn't want to  
9 hear. You can see that, incidentally, on the transcript of  
10 the November 1983 KI meeting I referred to earlier. OPE  
11 Director Jack Zerbe tried to get the staff to explain why it  
12 had made a 180 degree turn on KI in the space of just three  
13 weeks, but he got no answer.

14           OPE was abolished in the mid-80s, to my mind, a  
15 grave mistake. Its last director was excellent. He is  
16 still around the agency and could tell you more about the  
17 decision to eliminate the office.

18           Second, denials of 2.206 petitions were reviewable  
19 in court. That kept the staff on its toes, and it also  
20 meant that OGC was involved. The lawyer who would have to  
21 defend the case would insist that issues be addressed and  
22 questions answered. Since that time, however, the law has  
23 changed. As a general matter, 2.206 denials now are not  
24 reviewable, which for NRC has been a mixed blessing.

25           Third, the introduction of the SES bonus system

1 has played a part, I believe, in making the NRC managerial  
2 class more loyal to one another and less answerable to the  
3 Commission. For Commissioners come and go, but the  
4 "nomenklatura" goes on forever. If you want the other  
5 members of the team to recommend you for bonuses, you had  
6 better be viewed as a team player.

7 So I would respectfully suggest to the Commission,  
8 if and when it looks at what went wrong with Mr. Hopenfeld's DPO,  
9 or with mine, to take a broad view, and to consider systemic  
10 problems, not just their occasional symptoms.

11 If I were in the Commission's shoes, I would not  
12 turn to the staff for a self-evaluation. Few of us are good  
13 judges of our own performance, nor to the Inspector General.  
14 I would look instead to people like Guy Arlotto and Joe  
15 Scinto, recent retirees from a lifetime of service with the  
16 NRC staff, people who understand the staff from the inside,  
17 know its strength and its weaknesses, and have an impeccable  
18 reputation for integrity and objectivity.

19 I have sometimes been reproached for saying and  
20 writing critical things about the staff and the Commission.  
21 The charge, explicit or implicit, is that this shows a lack  
22 of loyalty on my part toward colleagues or the organization.

23 I would answer that two ways. The first is that  
24 in four years as a thyroid cancer patient at NIH, I spent a  
25 lot of time in waiting rooms with sick children and their

1 parents. This may sound like bringing in the violins, but  
2 it is the simple truth -- you don't go through some kinds of  
3 experiences unchanged. For example, seeing the numb  
4 expression on the faces of parents checking a young child  
5 back into the hospital a couple of days before Christmas,  
6 when every child well enough to go home for a few days was  
7 being checked out.

8           Likewise, I will never forget having my blood  
9 drawn one morning and hearing a voice from the next booth,  
10 "Oh, take that vein! That's a good vein!." I turned around  
11 and saw that the speaker was a boy no older than five. He  
12 was already an old-timer.

13           You often hear the argument that thyroid cancer is  
14 usually curable. I don't want kids to need to be cured. I  
15 don't want them sick in the first place, not when prevention  
16 is so easy and cheap. I don't want them spending their  
17 childhoods going back and forth to hospitals, becoming  
18 veterans of phlebotomy and nuclear medicine departments. I  
19 don't want them worrying every time some passing infection  
20 gives them swollen glands, whether this is a return of their  
21 cancer. I don't want the lives of their parents and  
22 siblings also blighted by fear and suffering. Finally,  
23 "usually" curable isn't the same as always curable.

24           There is enough childhood disease out there that  
25 we can't prevent that we shouldn't pinch pennies about a

1 type of childhood cancer that we can prevent.

2           So that is where my first loyalties are, with the  
3 kids and the parents. Does that imply disloyalty to NRC?  
4 Not at all. What do you think would happen to this agency  
5 if there were a major nuclear accident or act of terrorism  
6 in this country and children's thyroids were harmed because  
7 the NRC had never implemented the recommendation of the  
8 Kemeny Commission from 1979? What would Congress and the  
9 public say when they learned that the NRC had spent millions  
10 of dollars fighting KI instead of buying it? Would the NRC  
11 be given another chance? Would there even be a five-member  
12 body called the Nuclear Regulatory Commission a year or two  
13 later? What do think would happen to the reputations and  
14 careers of present and former Commissioners and senior  
15 staffers when the hunt began for those responsible? I think  
16 these are all questions worth considering.

17           In sum, I recommend this medicine because if an  
18 accident or act of nuclear terrorism occurred, it could save  
19 children. It might also have the incidental effect of  
20 saving the NRC. Thank you.

21           MR. WIENS: Could I have a copy of your statement  
22 up here?

23           MR. CRANE: Absolutely. I have got a few extras,  
24 though I am afraid not enough to go around.

25           MR. LOCHBAUM: I would like to thank Peter Crane

1 for his remarks today. I also need to acknowledge that for  
2 about three years he attempted to get me and UCS to support  
3 KI tablet distribution and we did not do that. We felt that  
4 our efforts were better aimed at preventing an accident than  
5 responding to it. And it wasn't until the pictures of the  
6 children after the Tokamura accident last December, parents,  
7 and the expressions on their faces that we changed -- or I  
8 changed my mind and we came out and supported it after that.

9 So, I appreciate that and also acknowledge that I  
10 was a little bit late in doing it.

11 MR. CRANE: Thanks.

12 MR. LOCHBAUM: Peter's job was to explain the  
13 concerns about KI. It is the petitioners' job to link that  
14 to Indian Point 2. I think the best way to do that is to  
15 refer to the Idaho National Engineering Laboratory. They  
16 said, "To prevent the release of radionuclides, the steam  
17 generator tubing must be essentially free of cracks,  
18 perforations, and general deterioration."

19 The presence of more than 1,000 plugged tubes, and  
20 countless other cracked tubes, in the Indian Point 2 steam  
21 generators and the mandated requirement to inspect the tubes  
22 frequently is prima facie evidence that steam generator  
23 tubes are not essentially free of cracks, perforations and  
24 general deterioration.

25 Indian Point 2, or Con Ed has evaluated the

1 scenario that leads to the greatest release of radioactivity  
2 to the environment, and that is a steam generator tube  
3 rupture with the concurrent failure of safety valves to  
4 close. That is the incident or scenario that leads to  
5 greater than 20 percent release of cesium and iodine  
6 inventories in the reactor core. Con Ed also reports that  
7 the reactor core contains roughly 86.3 million curies of  
8 Iodine-131. If just a minimal Type 1 release event occurs,  
9 which means that 20 percent of that inventory is released,  
10 that is 17.3 million curies of Iodine-131 being released to  
11 the atmosphere. For perspective, the government claims that  
12 only 10 million curies of all radioactive material was  
13 released following the Three Mile Island accident, so that  
14 would be 17-point -- nearly double that with just  
15 Iodine-131.

16 The wisdom of using KI tablets as protection  
17 against the radiation health effects from 131, Iodine-131,  
18 was recognized by the NRC less than two years ago. The  
19 owner of the Calvert Cliffs plant in Maryland discovered,  
20 after nearly two decades of operation, that its control room  
21 ventilation system was not adequately designed to protect  
22 operators following certain accidents. They concluded that,  
23 following an accident such as a steam generator tube  
24 rupture, the control room operators could receive a thyroid  
25 dose of 1900 rem, which was only 63 times the federal limit

1 of 30 rem.

2 The NRC allowed the plant to continue operating  
3 with this design deficiency because Calvert Cliffs committed  
4 to put the operators in self-contained breathing apparatus  
5 and distribute KI tablets to the control room operators  
6 following an accident.

7 We feel that the NRC should take the same steps to  
8 protect the members of the public that it and the industry  
9 have taken to protect their own workers. If it is good  
10 enough for the workers, it is good enough for the members of  
11 the public.

12 So we figure that Indian Point 2 should not be  
13 permitted to restart until KI tablets are provided for the  
14 people living around the plant.

15 At this point there was a question I should have  
16 asked earlier when you were asking rules and format  
17 questions. After Con Ed gets a chance to talk, are we going  
18 to come back for a final wrap-up, or should we provide those  
19 comments now?

20 MS. BLACK: You can go ahead and provide that now.

21 MR. LOCHBAUM: In that case, I would like to allow  
22 Deb Katz and/or Tim Judson the opportunity to speak, and  
23 Paul Gunter. I'm sorry.

24 MS. KATZ: Do you want to go first?

25 MR. JUDSON: Go ahead.

1 MR. WIENS: Can I ask a question also? Because of  
2 the phone, I have the phones reserved up until 3:00 and it  
3 is now almost 2:30. Do we anticipate that the meeting will  
4 go longer than another 30 minutes? Because, in that case, I  
5 do need to extend the --

6 MR. LOCHBAUM: We are in wrap-now, we only need a  
7 few minutes.

8 MR. WIENS: Okay.

9 MS. KATZ: I am not going 30 minutes. I am going  
10 to be very brief, to make it easy.

11 My name is Deb Katz, I am the Executive Director  
12 of the Citizens Awareness Network. We are a grassroots  
13 volunteer organization in the Northeast. We have about  
14 2,000 members at this point, and most of our members live in  
15 the shadow of nukes throughout New England in the Northeast.  
16 And we are here to support the petition of UCS and Public  
17 Citizen and Pace and NIRS to, in fact, replace the steam  
18 generators.

19 I mean in a certain way to us it is a no-brainer,  
20 you know, you have got them on-site. Why not replace them?  
21 And yet there is a lot of issues that go into that both  
22 financial and in terms of technical issues. But, you know,  
23 what we have seen is a history of problems with steam  
24 generators in the Northeast. And we have seen them at Maine  
25 Yankee, which has been a real debacle, and we have seen them

1 at Connecticut Yankee, who eventually closed over that  
2 issue. Yankee Rowe would have closed over that issue if it  
3 hadn't closed over its reactor vessel. And, so, somehow  
4 there doesn't seem to be a transfer of lessons learned from  
5 other reactors. That is a real concern to us in terms of  
6 both regulator and utility, in terms of fully getting a  
7 handle on this issue.

8 I mean I just want to go back to the fact that  
9 there were deteriorated tubes, 59 found in '93, '95 there  
10 were 21. In '97 there were 190 -- 173 tubes and then in  
11 '99, they were granted this ability to forego the  
12 inspection. And we are concerned about this issue of the  
13 NRC permitting this to happen. Because, in fact, what we  
14 have seen at Maine was, at a certain point, when the numbers  
15 started going up, there was, you know, orders of magnitude  
16 increased at that point in terms of the number of tubes that  
17 were failing.

18 And that at that point, the fact that the NRC did  
19 not require the utility, in fact, to go through that  
20 inspection is a real concern to us, and we believe that an  
21 investigation, a lessons learned into how that was allowed  
22 to happen is really important to us. Because, you know, to  
23 jeopardize the public health and safety in any nuclear  
24 community is just unacceptable, and that decision  
25 jeopardized the public health and safety, and it was the

1 workers at that reactor that, in fact, limited the amount of  
2 release that took place to the point, but it could have been  
3 a lot worse. And no release of radiation to the public is  
4 acceptable. I mean that has to be clear from -- I am just  
5 an ordinary person, from our perspective it is not  
6 acceptable there is any release of radiation that will  
7 affect our children.

8 I mean around the Yankee Rowe reactor at this  
9 point we have an epidemic of disease -- an epidemic of  
10 disease, that we are concerned was from long-term exposure  
11 to what took place at that reactor.

12 So we are concerned about a kind of crisis in  
13 oversight. I mean we have seen a lot of problems at the  
14 Millstone in terms of a debacle there, in terms of that  
15 utility following NRC regulations -- not following them to  
16 be specific, at the Vermont Yankee, at Connecticut Yankee,  
17 at Yankee Rowe. And what we feel is terribly important is  
18 that the NRC require this utility to follow the regulations.  
19 And the fact that they have not fully followed regulations  
20 which have come up, in fact, in 2.206 petitions submitted  
21 before this, is something that I think has to be looked at  
22 in the context of this petition and this issue. If there  
23 are systemic mismanagement issues that this utility suffers  
24 from, that it be addressed now before they be allowed to go  
25 back online with damaged steam generators.

1           And we just also had some questions about, in  
2 terms of -- and they don't necessarily have to be answered  
3 right now, but in terms of the plus point probe, because we  
4 know at Maine Yankee, when they used the plus point probe,  
5 the number of degraded tubes that was found just multiplied.  
6 So we are wondering, what percentage of the steam generators  
7 has been analyzed with plus point probes? Where and when it  
8 was done, and how much degradation was found over a period  
9 of time, the first time they did as opposed to the second  
10 time?

11           But I just want to go back and reiterate that the  
12 lives of families and children are at stake in this  
13 decision, and there is a lot to talk about, technical  
14 issues, and there is a lot about economics, but the truth is  
15 that nobody wants their children hurt in these communities.

16           MS. BLACK: Excuse me, Region I.

17           MR. WIENS: Everything quit listening, put their  
18 phones on mute.

19           MS. BLACK: Excuse me, Region I.

20           MR. ESELGROTH: Yes.

21           MS. BLACK: Can you put your phone on mute because  
22 you are disturbing the meeting here?

23           MR. ESELGROTH: We have had it on mute the whole  
24 time and we have been hearing a lot of noise. So it might  
25 be someone else on the line.

1 MS. BLACK: Okay. Sorry. Didn't mean to falsely  
2 accuse you.

3 MS. KATZ: We don't hold you accountable for  
4 telephone problems, but we will hold you accountable for  
5 technical --

6 MR. ESELGROTH: That's good, because we have been  
7 getting a lot of background noise throughout. We have been  
8 trying to work through it.

9 MS. BLACK: Okay. Thanks.

10 MS. KATZ: We won't hold you responsible for that.  
11 But we do need responsible regulation in terms of the  
12 protection of the health and safety. And, you know, a  
13 regulator that will regulate the utility, and we are  
14 concerned that that hasn't happened.

15 MS. BLACK: Thank you.

16 MR. LOCHBAUM: I would like to call Tim Judson to  
17 say a few remarks now.

18 MR. JUDSON: Hi, my name is Tim Judson, and I am  
19 with the Central New York Chapter of Citizens Awareness  
20 Network. And I am here primarily because I was the only  
21 person among our New Chapter that was able to attend this  
22 meeting, because of the request for a hearing or a meeting  
23 in the host community was not honored by the PRB.

24 I am here to represent a couple of issues, but I  
25 think the overarching one is to be urging the NRC to be

1 acting in a more conservative manner than they have been  
2 with these issues that are raised in the petition. To begin  
3 with, there is the issue of the potassium iodide  
4 distribution, and I want to describe to the PRB, because I  
5 am not sure that you all have heard these details about what  
6 people's experience was in the local communities the night  
7 of this accident.

8 I am sure you are aware that Con Ed delayed  
9 announcing that there was something happened at the reactor  
10 for some hours, and the people in the host community were  
11 unaware, by and large, of what was going on. And the Con Ed  
12 leader explained that inaction as being due to an evaluation  
13 that there was nothing the public could do to protect  
14 themselves in this situation, and that they later determined  
15 that there was not a significance enough release to pose a  
16 threat anyway.

17 Now, people who actually understood that there was  
18 something going on and called what Con Ed set up as its  
19 rumor control line, not an information line, but a rumor  
20 control line, and asked what was happening, were told that  
21 they should close their windows, stay inside and draw their  
22 blinds in their houses. And that this is actually  
23 inconsistent with Con Ed's leader's story that there was  
24 nothing the public could do.

25 And, in fact, this is consistent with our

1 experience, you know, of living in communities where Con Ed  
2 and the other utilities in New York state are running  
3 reactors, is that they actually have a conflict of interest  
4 in announcing when they are -- when these kind of events are  
5 happening. And that the NRC, in order to mitigate that  
6 conflict of interest as much as possible, must provide  
7 citizens with a way of protecting themselves, of taking  
8 protection into their own hands, in lieu of the inability of  
9 nuclear utilities to adequately inform the public of when  
10 something is going on, and this is something that been  
11 happening since Three Mile Island and even before. This is  
12 a repeated experience.

13 And so the lack of distribution of potassium  
14 iodide has to be seen as an non-conservative measure, given  
15 the performance of the nuclear industry. And this is the  
16 reason that we are supporting the request that the potassium  
17 iodide be distributed to the residents and businesses in the  
18 areas surrounding Indian Point.

19 Now, this is also the second time in the last six  
20 months that Consolidated Edison and Indian Point 2 have had  
21 -- that the NRC has dispatched and augmented an inspection  
22 team to the reactor, and that they have been brought up, you  
23 know, in cases of a 2.206 petition submitted by the public.

24 On August 31st, Con Ed and Indian Point 2 suffered  
25 an event at the facility, an electrical system failure,

1 that, for a number of hours, left them without 75 percent of  
2 their alarms in their control room and resulted in a Level 4  
3 emergency at the facility.

4 Now, there have been a number of design basis  
5 incidents that have occurred at the facility since then,  
6 including one on January 24th, where there was a broken fire  
7 barrier between a valve room and a pump room. There was, I  
8 believe it was on February 4th, a design basis event where  
9 the utility determined that they did not have adequate  
10 backup supply to operate manual valves in the event of an  
11 emergency, and that they had to divert other resources to  
12 maintain that design basis, or at least to mitigate until  
13 they found a solution.

14 And then 10 days later, there was a steam  
15 generator tube failure resulting in a Level 3 emergency.

16 And so what we experience living around Indian  
17 Point 2 and in New York state is that the situation at  
18 Indian Point 2 is getting worse and that, in fact, there are  
19 economic issues involved in this. If not the cost of  
20 replacement, as Mr. Smeloff has outlined, in terms of Con  
21 Ed's interest in selling their reactor, and that these are  
22 mitigating circumstances that need to be taken into account  
23 by the NRC in evaluating the licensee's credibility in terms  
24 of mitigating the situation, and in terms of evaluating it  
25 themselves. And this is why the NRC needs to take the more

1 conservative position and require that the reactor be shut  
2 down until the steam generators are replaced, that this is  
3 the only conservative way of protecting the public at this  
4 point from this utility's operations.

5 Now, there is also another sort of more -- a  
6 couple of more global issues with this that I think also  
7 need to be raised in this context. One has to do with the  
8 technical specifications under which the steam generators  
9 are operating. Now, it is my understanding that, according  
10 to the technical specifications regarding steam generator  
11 degradation, that up to 20 percent of the tubes in the steam  
12 generators can be plugged and the reactor still considered  
13 safe.

14 Now, it is our understanding that that technical  
15 specification determined by NRC does not account for the  
16 concurrent degradation of the other 80 percent remaining  
17 tubes that are still functioning in that steam generator,  
18 and that, in fact, when you begin plugging tubes, in  
19 addition to taking pressure off the tubes that are failing,  
20 you are putting additional pressure on the tubes that are  
21 remaining, and that this is unresolved issue, that these  
22 remaining tubes that are not being plugged are being put  
23 under greater pressure at the same time that they are also  
24 degrading, and that that is an unresolved issue that the NRC  
25 needs to take a conservative stance on.

1           Now, there is also an issue by which -- a policy  
2 statement that the NRC has in regard to the aging related  
3 degradation of reactors, and especially piping systems and  
4 coolant systems, that is called leak-before-break, where the  
5 NRC estimates -- or has a policy that says that the  
6 materials in the reactors, because they are degrading, that  
7 safety can be maintained because the NRC anticipates that  
8 operators will be able to monitor leaks, or ruptures in  
9 tubing or in their systems quickly enough to shut down the  
10 reactor and mitigate an accident.

11           Now, there is a number of ways in which this  
12 policy has already failed, including reactors like  
13 Fitzpatrick that have been reporting that their leak  
14 detection systems are inadequate to the job. But we also  
15 know that in the case of Indian Point 2, the operators and  
16 the NRC were aware for a number of weeks that the rate of  
17 leaks in the steam generators had increased by a rate of  
18 about 50 percent, and that those -- and that that leak  
19 basically went unaddressed until there was a rupture.

20           And our concern is that this leak-before-break  
21 policy has actually instilled a false sense of confidence in  
22 the NRC and in the operators of these plants, because what  
23 it has done is allowed -- as long as the operators and the  
24 NRC are able to monitor increases in leak, that they believe  
25 they still have control over the situation, when, in fact,

1 they don't have control over the situation and it may  
2 progress to point where there is an actual rupture, like  
3 what happened at Indian Point 2.

4 But, in addition, the fact of this policy, and the  
5 fact, you know, in the case that increases in leaks aren't  
6 observed, and, in fact, there is a large increase between  
7 the three gallons a day leak that was the noticed increase  
8 and the then 75 gallons a minute leak that was noticed at  
9 the point of rupture, that there was no noticed increase in  
10 between those two drastically different leak rates. And  
11 that, in fact, leak-before-break seems to also be giving the  
12 operators at the NRC a false sense of confidence that when  
13 they are not noticing an increase in leakage, that  
14 everything is okay. And, in fact, we know now that that is  
15 not the case, and that there are other incidents at other  
16 reactors that also confirm this, that I won't go into at  
17 this point, but that I can provide examples of if the PRB is  
18 interested.

19 So, this is why the Citizens Awareness Network is  
20 supporting the petition, and supporting all three of the  
21 contentions that the petition raises. Thank you.

22 MS. BLACK: Thank you.

23 MR. GUNTER: My name is Paul Gunter, I am with  
24 Nuclear Information and Resource Service and one of the  
25 petitioners. I am going to be very brief to allay your

1 concerns about further time here.

2 But sort of batting clean-up here, I think that  
3 there are two basic issues that you should be aware of that  
4 is most apparent to the public interest community, and I am  
5 sure aware of you as staff. But that the public interest  
6 community is very aware that the crack growth rate for steam  
7 generator tube degradation is still an unknown science in  
8 terms of detecting. Through your own staff testimony to  
9 Commission, it is apparent that over one cycle a steam  
10 generator tube can go from 10 known cracks to a thousand  
11 cracks in terms of crack growth rate. So there are clearly  
12 unknown risks associated with the crack detection, or the  
13 crack growth rate determination.

14 Secondly, that the detection technology still lags  
15 behind the actual degradation mechanism. And so we see both  
16 the -- in terms of your risk assessment, that the public is  
17 well aware of some clear concerns in terms of grappling with  
18 this issue that clearly is part of your formula for making  
19 technical decisions over whether or not Indian Point 2  
20 replaces its team generators.

21 What we are here to ask you, and as emphatically  
22 as I can, that you must, in this risk assessment, determine  
23 that the issue of risk for public safety must outweigh the  
24 issue of economic risk to this utility.

25 MR. LOCHBAUM: Go ahead.

1 MR. SMELOFF: I just wanted to add one additional  
2 comment in support of the third issue, and that is the  
3 stockpiling and distribution of potassium iodide. This  
4 reactor is located in a quite dense population area. When I  
5 was in California, the surrounding area was much less  
6 populated. This is a very dense --

7 OPERATOR: Your conference is scheduled to end in  
8 15 minutes.

9 MR. WIENS: Thank you.

10 MR. SMELOFF: And the ability to evacuate the  
11 population from the area is problematic at best. There is  
12 not -- and the local county legislature is currently taking  
13 a look at that. In testimony before the county legislature,  
14 it was revealed that the local school district in Buchanan,  
15 the Henrik Hudson School District, does not have the ability  
16 to remove the children with their own buses. It would take  
17 three trips to remove the children from the school district.

18 So, it just seems, given those circumstances,  
19 particularly regarding Indian Point, that the distribution  
20 of potassium iodide is particularly relevant in this area  
21 and needs to be addressed before the restart of the plant.

22 MR. LOCHBAUM: I know we went over time, way over  
23 time, and I appreciate the patience in doing it. This is  
24 the first time we have gone through it, so it took this  
25 long. And I do appreciate that, and we are done.

1 MS. BLACK: Okay. Can I ask if there is any other  
2 Congressional staff here that want to make a statement in  
3 support of this? Okay.

4 [No response.]

5 MS. BLACK: And would the licensee like to make a  
6 presentation today.

7 MR. McCANN: A very brief one.

8 MS. BLACK: Okay.

9 MR. McCANN: We appreciate the opportunity to hear  
10 firsthand the concerns that are raised in the petition.  
11 From our perspective, it is important, I guess, to  
12 understand that we view the petition process as primarily  
13 between the petitioners and the Commission, and it is  
14 valuable to us to be able to hear firsthand the concerns so  
15 that we can respond promptly and effectively to whatever  
16 information the NRC would require of us in addressing their  
17 decision with respect to the petition.

18 My name is John McCann, by the way. I'm sorry, I  
19 forgot to say that.

20 We really have nothing to say on the generic  
21 issues of potassium iodide and the internal Differing  
22 Professional Opinion. I think it is also important to note  
23 that we will be required, prior to returning the steam  
24 generators to service, and we would certainly want to  
25 ourselves, prior to returning the steam generators to

1 service, have a thorough operational assessment of the  
2 capability of the steam generators for the period of time  
3 that we would operate them. That that operational  
4 assessment, in the normal course of business, will be  
5 provided to the NRC, and will be made public in the form of  
6 a docketed correspondence.

7 And I believe that whatever questions will need to  
8 be addressed with respect to the return to service of the  
9 steam generators at Indian Point would be appropriately  
10 handled in that format. That is basically all we had to  
11 say.

12 MR. RICCIO: If I could just add one thing. This  
13 is Jim Riccio from Public Citizen. I would hope that that  
14 information would be made publicly available prior to any  
15 decision to restart the reactor. We are experiencing some  
16 severe problems with your ADAMS system, and, basically, we  
17 are still unable to get documents from the last Petition  
18 Review Board meeting that we worked on, through the ADAMS  
19 system. We got them from the staff.

20 MS. BLACK: Well, Francine Goldberg is here to  
21 listen to your concerns about ADAMS. And, yes, is it  
22 possible to put that on the web site, too, do you think, or  
23 their operational assessment when we get it docketed?

24 MR. GAMBERONI: Yes.

25 MR. WIENS: We will work on that. Any information

1 that is publicly available, you know, we will. Not only  
2 through ADAMS but through direct --

3 MR. RICCIO: It is probably available, and it is  
4 publicly available.

5 MS. BLACK: We have been supplying information  
6 directly to Mr. Lochbaum because of the problems.

7 Another thing I forgot to ask you about was the  
8 auxiliary feedwater issue. Is that still an issue?

9 MR. LOCHBAUM: To just briefly summarize that  
10 issue, as we were developing the petition back in March, we  
11 had two industry veterans tell us that the safety  
12 evaluations that are done look very closely at the plugged  
13 tubes and the impact on normal heat transfer removal and  
14 normal heat removal, but don't do a very good job on  
15 auxiliary feedwater system when that kicks in.

16 We put that in the petition, I tracked it down,  
17 tried to track it down through the PDR. I couldn't find any  
18 information on Indian Point 2. I did find some information  
19 on Three Mile Island but is the ones through steam  
20 generators. They covered it adequately, but it is so  
21 different that it wasn't fully useful. So I didn't have  
22 enough to confirm the thing, so we did not put it in today's  
23 presentation. I wasn't able to confirm or refute what I had  
24 heard.

25 MS. BLACK: Okay. But if you wish to supplement

1 your petition in the future, you can always do that. File a  
2 separate petition.

3 MR. LOCHBAUM: I will. Thank you.

4 MR. SUBBARATNAM: Suzy.

5 MS. BLACK: Yes.

6 MR. SUBBARATNAM: He has a question.

7 MR. CRANE: A quick point of clarification, a  
8 question from Peter Crane. Which is, Suzy, you said earlier  
9 that --

10 OPERATOR: Your conference is scheduled to end in  
11 10 minutes.

12 MR. CRANE: You said that the determination had  
13 been made that the generic issue of KI could not be handled  
14 in the context of the petition. That sounds like a legal  
15 judgment. If that judgment holds up, that -- this is the  
16 judgment of the General Counsel's Office?

17 MS. BLACK: No, the Petition Review Board reviews  
18 the information to decide whether a petition meets the  
19 criteria in Management Directive 8-11. And based on what  
20 was submitted originally in the written petition, we decided  
21 that that issue wasn't specific to Indian Point 2, and we  
22 will review the information that was given us to us today.

23 And it doesn't mean that we will not address the  
24 issue. We will still respond to the correspondence by  
25 answering the question about the KI, but it is just whether

1 it goes into the 2.206 process or not.

2 MR. CRANE: So, is it, I am just curious, this is  
3 all new to me, since you mentioned it. But is it your  
4 position that a remedy, which is a generic issue, cannot be  
5 raised in a 2.206, even if someone is saying that because of  
6 special characteristics of a site it is more necessary at  
7 that site than elsewhere? That is your position?

8 MS. BLACK: No, that is not the position. The  
9 position is that they did not make that nexus in the writing  
10 in the first petition.

11 MR. WIENS: What you said, Peter, -- this is Len  
12 Wiens. If what you said was presented in that fashion, that  
13 would fall under the 2.206 process.

14 MS. BLACK: Well, probably.

15 MR. CRANE: Well, I don't represent you folks.

16 MR. RICCIO: Thank you, Peter.

17 MS. BLACK: Another question I had, and I believe  
18 I asked you in the March 16th telephone conversation, too.  
19 Now, if the steam generators were replaced, would you still  
20 request that the second and third items of your petition, if  
21 they are accepted as part of the petition, be remedied prior  
22 to restart with the new steam generators?

23 MR. LOCHBAUM: Yes, we would.

24 MS. BLACK: Okay.

25 MR. LOCHBAUM: We would be happy to take one of

1       them we can get, but we would like all three.

2               MS. BLACK:   Okay.

3               MR. WIENS:   Since the handouts that provided  
4       during this meeting include information that wasn't included  
5       on the transcript, unless anyone has an objection, all of  
6       the handouts that were presented, we plan to put in the  
7       public document room and on ADAMS to be made available.  
8       That should occur very soon, early next week.  And they  
9       would also be probably referenced via the ADAMS accession  
10      numbers as part of the meeting summary.

11              MR. RICCIO:  Okay.  In that regard, I would like  
12      to submit these documents which were the basis for my  
13      comments, as well as NUREG/CR-6365 from April of '96.  But I  
14      am keeping this document, it is the only one I have got.

15              MR. WIENS:  And the list of public officials that  
16      you provided will be included in that, so it will be on the  
17      record.

18              MR. SMELOFF:  Very good.

19              MR. GUNTER:  Could I ask one follow-up question  
20      real quick?  Can you give us some idea of what your  
21      deliberation time is and a timeframe for a Director's  
22      decision on this?  I mean I have waited as long as three  
23      years for a decision in some cases on 2.206 petitions.

24              MS. BLACK:  That won't be the case.

25              MR. GUNTER:  I am sure that won't be the case in

1 this. But I think it would be --

2 MS. BLACK: That was the old days. Our goal now  
3 is about 120 days at the maximum, and quicker if it is a  
4 simple issue that can be answered in a quicker amount of  
5 time. And that is 120 days from the acknowledgement letter,  
6 which was April 5th in this case.

7 Now, the Petition Review Board will meet again  
8 next week I imagine, early next week, and we will make a  
9 decision on whether to incorporate the other two items in  
10 the 2.206 process. And we will have an amended  
11 acknowledgement letter at that point. But 120 days is the  
12 goal and we strive to beat that when we can.

13 MR. RICCIO: Let's just say that you can expect an  
14 amendment of our 2.206 petition to include what Mr. Crane  
15 had indicated.

16 MR. JUDSON: I just had a follow-up question to  
17 that.

18 MS. BLACK: Yeah, I think you have to get up to  
19 the microphone so that it is recorded.

20 MR. JUDSON: Clearly, Consolidated Edison may not  
21 be waiting, you know, 120 days before they decide to restart  
22 the reactor, and in terms of the ability of the NRC to  
23 address our concerns in the petition before they restart the  
24 reactor, can we anticipate that that is possible or that is  
25 a commitment?

1 MS. BLACK: Yes. Because the NRC would have to  
2 make the technical judgment that the plant was -- or that  
3 the steam generators that they would start up with would be  
4 adequate. Now, that may be with the steam generators they  
5 have or if Con Ed decides to propose new steam generators,  
6 that would be -- but these technical decisions will be made.

7 Now, the formal Director's decision would not have  
8 to be issued, but, yes, the technical issues would have to  
9 be addressed.

10 Does anybody else have any comments?

11 MR. FONTECILLA: Can I ask a procedural question?

12 MS. BLACK: Yes.

13 MR. FONTECILLA: My name is Herb Fontecilla. As a  
14 member of the public, several times it has been mentioned  
15 that there will be information available in ADAMS. I used  
16 ADAMS and in the last week I have not been able to download  
17 or print a single document for the entire week. So I think,  
18 for the record, saying it is in ADAMS is saying it is not  
19 available to the public.

20 MR. WIENS: We intend to place it in ADAMS and in  
21 the Public Document Room.

22 MS. BLACK: And on the web site.

23 MR. FONTECILLA: How do you look for something if  
24 you don't know it exists?

25 MR. RICCIO: Yeah, that is a problem.

1 MS. BLACK: But we hope that our web site to deal  
2 with this event is helping to get information out on this.

3 MR. FONTECILLA: People keep pointing fingers that  
4 everything is available in ADAMS, it is not.

5 MS. BLACK: I appreciate that and that is why our  
6 office, Francine Goldberg is here representing the ADAMS  
7 people to take these comments and to do what they can to  
8 make the system any better. Do you want to say something?  
9 Can you get to a microphone?

10 MS. GOLDBERG: I am Fran Goldberg, I am Director  
11 of Information Management, Office of the Chief Information  
12 Officer. We are working on the printing problem. We have  
13 revised.

14 MR. FONTECILLA: You have been working on it for a  
15 very long time.

16 MS. GOLDBERG: Yeah, well, I understand that, but  
17 we hope to have that resolved by Monday.

18 MR. FONTECILLA: We have that before.

19 MS. BLACK: Okay. And I think Len Wiens had one  
20 other thing.

21 MR. RICCIO: I just have one more question, or  
22 actually it is more of a comment. You are going to have to  
23 prove to the public why we should have any more confidence  
24 in the decision this go-round to allow this reactor to  
25 restart than we had about your previous decision dealing

1 with the license amendment that allowed them forego  
2 inspection.

3 You guys coming out again saying, well, you know  
4 what, we think the steam generators are fine. That is what  
5 you said several months ago and it turned out not to be the  
6 case, and I really don't think we want to experience the  
7 first multiple tube rupture 35 miles from Manhattan.

8 MS. BLACK: Okay.

9 MR. RICCIO: Thank you.

10 MR. WIENS: I just have -- unless somebody else  
11 has questions on the petition, just two administrative  
12 things. After the meeting is actually concluded, we would  
13 like the people on the telephone, and we hopefully have  
14 extended the call for another 30 minutes, to stay on so we  
15 can get the correct spelling of the names of all the people  
16 that are on the phone. And then some people have requested  
17 copies of the attendance list. If there somebody that has  
18 not put their name on that, I would appreciate it if they  
19 could see me as soon as the meeting over, and I will make  
20 copies so that everybody can -- as many people as want them,  
21 can have that list.

22 MS. BLACK: Okay. Well, that ends the meeting,  
23 the public meeting on the petition. Thank you very much.

24 MR. RICCIO: Thank you.

25 MR. LOCHBAUM: Thank you.

1 [Whereupon, at 3:00 p.m., the meeting was  
2 concluded.]  
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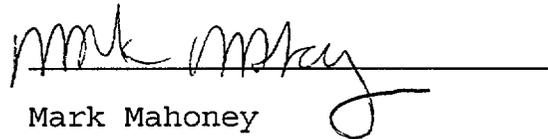
This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

NAME OF PROCEEDING: PUBLIC MEETING:  
10 CFR 2.206 PETITION

CASE NUMBER:

PLACE OF PROCEEDING: Rockville, MD

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.

  
\_\_\_\_\_

Mark Mahoney

Official Reporter

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