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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING BOARD PANEL

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HEARING

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In the Matter of: : Docket Nos.  
ENTERGY NUCLEAR OPERATIONS, INC. : 50-247-LR and  
(Indian Point Generating Units : 50-286-LR  
2 and 3) : ASLBP No.  
-----x 07-858-03-LR-BD01

Tuesday, October 23, 2012

DoubleTree by Hilton Hotel  
Tarrytown  
Westchester Ballroom  
455 South Broadway  
Tarrytown, New York

BEFORE:  
LAWRENCE G. McDADE Chair  
MICHAEL F. KENNEDY Administrative Judge  
RICHARD E. WARDWELL Administrative Judge

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None Marked

WITNESSES

- |                       |                    |
|-----------------------|--------------------|
| Robert M. Aleksick    | Nelson Azevedo     |
| Dr. Allen Hiser       | Dr. Nathan Bixler  |
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| Lori Potts            |                    |

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

(2:01 p.m.)

1  
2  
3 JUDGE McDADE: The hearing will come to  
4 order. Before we get started on Environmental  
5 Contention 3 submitted by Clearwater, there are a  
6 couple of preliminary matters. We received a couple  
7 of motions in from Clearwater. And I just want to  
8 make sure I understand what the motions are and the  
9 import of the motions.

10 There were withdrawals from Ms. Greene and  
11 Mr. Filler. Ms. Raimundi, they are withdrawing from  
12 representation of Clearwater so that they can be  
13 witnesses on this contention. Is that correct?

14 MR. WEBSTER: Yes. This is Richard  
15 Webster, Judge, for Clearwater. I'm from Public  
16 Justice in Washington, D.C. Yes, they are withdrawing  
17 so they can be witnesses. That is correct, Your  
18 Honor.

19 JUDGE McDADE: Okay. So they're both  
20 going to be witnesses on this contention? Are they  
21 withdrawing only for this contention and then will  
22 file new notices of appearance? Are you going to be  
23 representing them or Ms. Raimundi?

24 MR. WEBSTER: I think either myself or Ms.  
25 Raimundi will be representing Clearwater from now on.

1 JUDGE McDADE: Okay. I didn't notice,  
2 quite frankly, that you had switched, but it does make  
3 more sense for you and Riverkeeper on this contention  
4 to have changed chairs.

5 MR. WEBSTER: I should have mentioned  
6 that, Judge.

7 JUDGE McDADE: Well, it just shows you how  
8 observant I am this early in the morning.

9 Are there any other administrative matters  
10 that we need to take up before we get started?

11 MR. SIPOS: Your Honor, John Sipos for the  
12 State of New York. I was reflecting upon the  
13 procedure that the Board put in place yesterday for  
14 the recent exhibits on contention New York-17, I  
15 believe the two that we discussed towards the close of  
16 yesterday's proceedings.

17 And I was wondering if it would also make  
18 sense to have a similar procedure or similar timeline  
19 in place for the recent document that came in on New  
20 York-16. And specifically I believe I am referring to  
21 Entergy exhibit 000589.

22 And the state suggests -- and I mentioned  
23 this to Entergy, but we haven't fully come to a  
24 resolution. But I've suggested that it might also  
25 make sense from a symmetry perspective to have a



1 similar 30-day time period in place regarding that  
2 exhibit.

3 JUDGE McDADE: Okay. It hadn't been  
4 requested yesterday. You are requesting it now. What  
5 is the view of Entergy with regard to that?

6 MS. SUTTON: Kathryn Sutton for the  
7 applicant, Your Honor. My recollection from yesterday  
8 is New York was given an opportunity to further object  
9 to the exhibit in question. And a clarification of  
10 the timing on that objection is warranted, but beyond  
11 that, we would need to see the objection as proffered  
12 and then have a position.

13 JUDGE McDADE: Well, I think what Mr.  
14 Sipos is suggesting is an alternative. Alternative 1  
15 is to object to the admission of the exhibit.  
16 Alternative 2 -- and correct me if I'm wrong -- is to  
17 offer testimony with regard to an explanation of New  
18 York's view of it the way we had talked about the New  
19 York-17 late-arriving exhibits. Is that correct? Are  
20 we only talking about the objection?

21 MR. SIPOS: It would be a bit of a hybrid  
22 of both, Your Honor. And I don't know sitting here --

23 JUDGE McDADE: So you believe it was only  
24 the objection until I mentioned the other?

25 MR. SIPOS: No, Your Honor. Actually, in

1 discussing the document this morning with my  
2 colleagues, we thought perhaps it would be good to  
3 have a symmetrical track for that exhibit as well as  
4 the exhibits that were discussed at the end of the day  
5 yesterday on contention 17, the Dr. Tolley exhibit and  
6 the Dr. Sheppard exhibit.

7 JUDGE McDADE: Okay. I think it would be  
8 appropriate to put the time frame of 30 days to file  
9 an objection. Likewise, rather than filing any  
10 additional testimony if you thought it was necessary  
11 to do in order to explain it, if you could just file  
12 a brief motion as soon as possible but within 30 days,  
13 that would explain basically what you want to do. And  
14 that way Entergy would have an opportunity to respond  
15 to that motion before we make a decision whether to  
16 receive it and then, you know, sort of delay the  
17 closing of the record on that contention because if we  
18 allowed you to submit additional testimony, then I'm  
19 sure Entergy would want to do the same.

20 So it would be within the 30 days, file  
21 any objection. Within 30 days, if you believe it's  
22 necessary for clarification to present additional  
23 testimony to do file a motion to that effect, again,  
24 as soon as possible, but, in any event, no later than  
25 30 days. I think November 21st -- I didn't look at a

1 calendar yet to see if that's a Saturday or a Sunday,  
2 but if it is, it goes to the following Monday.

3 MR. SIPOS: Thank you, Your Honor.

4 JUDGE McDADE: Anything further from  
5 Entergy, Ms. Sutton?

6 MS. SUTTON: No, nothing further, Your  
7 Honor.

8 JUDGE McDADE: From Clearwater?

9 MS. RAIMUNDI: Yes, Your Honor. I would  
10 like to remind the Board and parties that Ms. Dolores  
11 Guardado will be available to join the Panel at 3:00  
12 p.m. today.

13 JUDGE McDADE: Okay. Thank you. That was  
14 left somewhat up in the air yesterday, and I  
15 appreciate your giving us that head's up. We also  
16 have arranged for an interpreter, who should be here  
17 by that time as well.

18 MS. RAIMUNDI: Thank you, Your Honor.

19 JUDGE McDADE: From the staff, anything to  
20 take care of before we get started?

21 MR. TURK: No, Your Honor.

22 JUDGE McDADE: Riverkeeper?

23 MS. BRANCATO: No, Your Honor.

24 JUDGE McDADE: Before we do get started,  
25 let me just address the witnesses. We have a

1 different group than we have had. Some individuals  
2 have been here during the course of the hearing  
3 earlier. But I want to make sure that you understand  
4 sort of the ground rules.

5 Basically this is an opportunity for the  
6 judges to ask questions of you. It is basically a  
7 dialogue between us and you. If we ask you a  
8 question, you respond to us.

9 There may well be disagreements between  
10 one witness and another. We have witnesses  
11 representing opposing parties. You don't talk back  
12 and forth. If you want to answer a question, answer  
13 the question that is put to you, we will ask questions  
14 of the opposing witnesses seriatim. So it isn't a  
15 situation where one of you talks back and forth to the  
16 other. You talk to us.

17 Likewise, you'll notice when counsel talk,  
18 they're not going to be addressing you directly.  
19 They're going to be addressing us. So everything is  
20 sort of derivatively through the Board.

21 The other thing is if, for any reason, any  
22 of you feel that you need a short break, don't sit  
23 there in silence. Try to get our attention. If we're  
24 not observant, try to get the attention of your  
25 counsel, who then won't be shy about asking us to take

1 a short break.

2 I think that's it for preliminaries. It  
3 is necessary that the testimony be under oath. We  
4 have already read the testimony that you have  
5 submitted. We don't plan to go over all of that  
6 testimony again and repeat it. The purpose here is  
7 simply for us to clarify in our minds the testimony to  
8 make sure that we understand it and that we fully  
9 understand the position of the parties on the issues.

10 At this point, would you please raise your  
11 right hand?

12 (Whereupon, the witnesses were duly  
13 sworn.)

14 JUDGE McDADE: One of the things we have  
15 done on contentions as we go through this is to state  
16 briefly what the Board views the contention is, which  
17 then sort of informs the kinds of questions that we  
18 are going to be asking.

19 We're not here for legal argument. This  
20 is to find fact. The staff and the applicant have  
21 both argued in legal briefs and I assume will continue  
22 in post-hearing filings that the postulated accident  
23 put forth by Clearwater are so remote as to not  
24 require a consideration within the context of an  
25 environmental impact statement and the environmental

1 justice aspect of it. But that is a legal argument.  
2 What we're here today to do is to determine fact.

3 Now, also we want to make clear this isn't  
4 a challenge to the evacuation plan. This isn't a  
5 challenge to a SAMA. What this is is, rather, a  
6 challenge to an alleged lack of analysis into the  
7 potential for disproportional increased exposure to  
8 radiation to the environmental justice community and  
9 a lack of discussion of viable mitigating factors that  
10 would limit such disproportionate exposure. That's  
11 what we're trying to do. And we're going to focus on  
12 health impacts to the degree that we can and  
13 mitigation to prevent disproportional health risks to  
14 the environmental community.

15 That said, let me get started with the  
16 staff. The first question, the environmental justice  
17 aspect of the environmental impact statement is  
18 located in section 4. Is that correct?

19 MR. RIKHOFF: Jeff Rikhoff with the staff.  
20 Yes, Your Honor.

21 JUDGE McDADE: Okay. And could we put up  
22 New York exhibit 000133B? Okay. I obviously have the  
23 wrong exhibit. Can you slide down? Okay. What we're  
24 looking for is section page 4-49. So if you can go  
25 down perhaps to page 117 of this? Environmental

1 justice, can you pull that? Okay.

2 This is the beginning of your analysis of  
3 the environmental justice aspect of the environment  
4 impact. Is that correct?

5 MR. RIKHOFF: Jeff Rikhoff for the staff.  
6 Yes, Your Honor.

7 JUDGE McDADE: Okay. And if we can slide  
8 forward to page 4-55, 117, line 19? Okay. Could you  
9 highlight the beginning of line 19 there,  
10 "Socioeconomic connotations"? Okay. Okay.

11 Do you see that, sir?

12 MR. RIKHOFF: Yes, I do.

13 JUDGE McDADE: Okay. And then beginning  
14 at line 26, "Potential impacts." That is basically  
15 your discussion with regard to the impact on minority  
16 populations.

17 My question to you is to tell us sort of  
18 conceptually how you get from the fact that you're  
19 saying there is no change to the conclusion that there  
20 is no disproportional impact.

21 MR. RIKHOFF: The difference in the two  
22 statements is we tried to determine what the effects  
23 of license renewal will be on minority and low-income  
24 populations. The only potential impact is the  
25 continued operation of the plant and the radiological

1 risks that are associated with that continued  
2 operation.

3 JUDGE McDADE: I understand. And I  
4 understand your conclusion that the impact during the  
5 period of extended operation will be substantially  
6 similar to the impact in the period before extended  
7 operation.

8 My question, given that this is an  
9 environmental justice section, how do you get to the  
10 conclusion, not that they will be the same as before,  
11 but that, whatever those impacts are, they won't be  
12 disproportional to the minority population, as opposed  
13 to the population generally?

14 MR. RIKHOFF: In our review process, the  
15 steps that we follow are identifying the minority  
16 low-income populations. I think I need to back up a  
17 little bit in order to help provide this explanation.

18 JUDGE WARDWELL: Back up all the way and  
19 define what is environmental justice. How do you go  
20 about evaluating it? How do you define the  
21 populations? And then go possibly if you haven't  
22 gotten that far back to where you -- as far back as  
23 you were going to go, --

24 MR. RIKHOFF: Okay.

25 JUDGE WARDWELL: -- it would help me.



1 MR. RIKHOFF: In identifying minority and  
2 low-income populations, we use census data. And we  
3 identify all peoples who are of a different race, of  
4 a different ethnicity.

5 Simply, we subtract out the white  
6 non-Hispanic population from the total population that  
7 is being examined. The remaining population is  
8 minority by definition.

9 We then look at what effects license  
10 renewal would have on all populations.

11 JUDGE WARDWELL: Before you say that,  
12 could you just define environmental justice. And how  
13 is it evaluated generally?

14 MR. RIKHOFF: Well, the purpose for the  
15 executive order is it requires us to consider the  
16 effects of our licensing action on minority and  
17 low-income populations. And this analysis is  
18 attempting to do that.

19 JUDGE WARDWELL: But doesn't that  
20 executive order or somewhere in guidance or whatever  
21 else say that if there is a disproportionate impact to  
22 those minorities, that needs to be brought attention  
23 to the decision-maker so that they know that as they  
24 move forward?

25 MR. RIKHOFF: Yes, Your Honor.

1 JUDGE WARDWELL: And how is that applied  
2 when we're dealing with the license renewal? What are  
3 we comparing to? What impacts to the minorities are  
4 we comparing to the general population? Who is the  
5 general population in that case?

6 MR. RIKHOFF: It's the total population.

7 JUDGE WARDWELL: Of what?

8 MR. RIKHOFF: Of the -- in this case, the  
9 50-mile radius.

10 JUDGE WARDWELL: Only the 50-mile radius?

11 MR. RIKHOFF: That is correct.

12 JUDGE WARDWELL: And so how would you  
13 achieve a disproportionate impact to a minority  
14 compared to the general population if we're only  
15 talking a general population that is within that  
16 50-mile zone?

17 MR. RIKHOFF: We first have to identify  
18 what effect the plant will have in the -- in this case  
19 in the license renewal term that would be different,  
20 new -- a new effect, added or increased effect, that  
21 may occur in the license renewal term. In this  
22 instance, in our review, we could not identify  
23 anything beyond a continued release of radiological  
24 nuclides under normal operating conditions.

25 JUDGE WARDWELL: Why wouldn't you compare

1 it to the no-action alternative; i.e., the plant  
2 shutting down?

3 MR. RIKHOFF: Well, we do that in the  
4 alternatives impact discussion.

5 JUDGE WARDWELL: Of the environmental  
6 justice analysis or the rest of the NEPA analysis?

7 MR. RIKHOFF: In the rest of the NEPA  
8 analysis.

9 JUDGE WARDWELL: But, I mean, as far as  
10 environmental justice is concerned, isn't that the  
11 thing that's of interest to the decision-makers on  
12 whether to renew the license or not?

13 MR. RIKHOFF: Yes. Yes, it is.

14 JUDGE WARDWELL: And so under that -- I'm  
15 confused. You're saying under the general NEPA, you  
16 go back and look at environmental justice or is it  
17 done as part of the environmental justice review to  
18 start with?

19 MR. RIKHOFF: No. We do the analysis as  
20 part of the -- whether the impacts of renewing the  
21 operating license and then in the alternatives  
22 discussion in chapter 8, then we look at the  
23 environmental justice impacts of various alternatives,  
24 including the no-action alternative.

25 JUDGE WARDWELL: Thank you.

1 MR. TURK: Your Honor --

2 JUDGE McDADE: But as far as environmental  
3 justice itself, all of your discussion of  
4 environmental justice is in this section 4 that was  
5 just called up of the environmental impact statement?

6 MR. RIKHOFF: No, Your Honor. This is  
7 just the effects of continued operations.

8 JUDGE McDADE: Okay. And the effects of  
9 closing it are where?

10 MR. RIKHOFF: In chapter 8, the -- of the  
11 chapter providing analysis and discussion of the  
12 impacts of various alternatives to renewing the  
13 operating license.

14 JUDGE McDADE: Okay. And in chapter 8, do  
15 you have a further discussion, then, of the impact on  
16 environmental justice populations?

17 MR. RIKHOFF: Yes, Your Honor.

18 JUDGE McDADE: Okay. But those are  
19 socioeconomic, basically the same kinds of discussion  
20 here, that it would be small? And you're talking  
21 about jobs. You're talking about radiation dose.  
22 You're not talking about any of the issues that were  
23 raised by Clearwater. Correct?

24 MR. RIKHOFF: That's correct, Your Honor.

25 JUDGE McDADE: Okay. Mr. Turk, did you

1 have a question?

2 MR. TURK: Yes, Your Honor. If I may, I  
3 have a copy of the environmental impact statement in  
4 front of me. I would refer Your Honor, first of all,  
5 to Dr. Wardwell's question about the executive order  
6 and the background of environmental justice that  
7 begins at page 4-49 of the EIS. And then the  
8 discussion of environmental justice for the no-action  
9 alternative is found at page 8-26.

10 And, with Your Honor's permission, I would  
11 ask if Mr. Rikhoff has a copy of the EIS, that, from  
12 time to time, if he feels a need to refer to it, that  
13 he be given an opportunity to find whatever answers he  
14 may need in the EIS itself.

15 JUDGE McDADE: Okay. Thank you, Mr. Turk.

16 Also, Mr. Rikhoff, when you are looking to  
17 determine what to put into your environmental impact  
18 statement with regard to environmental justice, what  
19 do you look for for guidance?

20 There is -- and I think it has been  
21 introduced as exhibit 000260, Entergy 000260, which is  
22 the NRC policy statement, and Entergy 000261, which is  
23 LIC-203. Are those the principal documents that you  
24 look to for guidance?

25 MR. RIKHOFF: Yes, Your Honor.

1 JUDGE McDADE: Is there anything else  
2 other than those documents?

3 MR. RIKHOFF: There is also the CEQ  
4 guidance document. That provides general guidance to  
5 federal agencies in conducting environmental justice  
6 reviews.

7 JUDGE McDADE: But that's outside the NRC?

8 MR. RIKHOFF: That's correct.

9 JUDGE McDADE: But your principal guidance  
10 is those two documents?

11 MR. RIKHOFF: Yes, Your Honor.

12 JUDGE McDADE: Okay. And they help you  
13 focus within your environmental justice analysis  
14 within the 50-mile radius around Indian Point?

15 MR. RIKHOFF: Yes, Your Honor.

16 JUDGE McDADE: Judge Wardwell?

17 JUDGE WARDWELL: You mentioned that you  
18 considered the minority populations to be the general  
19 population minus the non-Hispanic whites. Is that  
20 correct?

21 MR. RIKHOFF: Yes, Your Honor.

22 JUDGE WARDWELL: So are elderly or  
23 prisoners or nursing home people or any of those  
24 others not part of the minority population as covered  
25 by environmental justice? Is that your position?

1 MR. RIKHOFF: They're not covered because  
2 the executive order doesn't identify those populations  
3 by name. It's limited to only minority and low-income  
4 populations, but --

5 JUDGE McDADE: How does the low-income  
6 come in? I mean, wouldn't the non-Hispanic white  
7 low-income people fall within that group, then?

8 MR. RIKHOFF: Yes, Your Honor.

9 JUDGE McDADE: But what you're saying is  
10 specifically there is guidance that says that blacks,  
11 Hispanics, Native Americans, there's a delineated  
12 group, which is considered minority for the purposes  
13 of environmental justice?

14 MR. RIKHOFF: Yes, Your Honor.

15 JUDGE McDADE: And then there is another  
16 delineated group for those people who are low-income?

17 MR. RIKHOFF: Yes, Your Honor.

18 JUDGE McDADE: And individuals such as the  
19 disabled or the mobility-impaired, it would not be  
20 included within the environmental justice category  
21 based on the fact that they were mobility-impaired or  
22 disabled, but they might be included within it because  
23 they were a member of a minority group or fell within  
24 the low-income criteria?

25 MR. RIKHOFF: Yes, Your Honor.

1 JUDGE McDADE: Do you have a follow-up  
2 question?

3 JUDGE WARDWELL: Not -- I've got other  
4 questions.

5 JUDGE McDADE: Yes.

6 JUDGE WARDWELL: I'm satisfied on this  
7 area.

8 JUDGE McDADE: Okay. Within the 50-mile  
9 area around Indian Point, when you look at minority  
10 populations, such as black or Hispanic -- and I  
11 believe that you concluded, according to the 2000  
12 data, that there were about 20.7 percent black, 20.5  
13 percent Hispanic within that 50-mile area? Does that  
14 sound approximate? You don't have --

15 MR. RIKHOFF: It sounds approximately  
16 correct, yes, Your Honor.

17 JUDGE McDADE: Correct. And then, adding  
18 in additional minorities that were enumerated in the  
19 guidance, you came out to about 48.7 based on the  
20 guidance that you were given as far as identification  
21 of minorities approximately?

22 MR. RIKHOFF: Approximately, yes, Your  
23 Honor.

24 JUDGE McDADE: Slightly under 50 percent?

25 MR. RIKHOFF: Yes, Your Honor.



1 JUDGE McDADE: Okay. Now, if we have  
2 under 50 percent minorities in the overall area, is  
3 there a way under that guidance that minorities are  
4 taken into consideration?

5 MR. RIKHOFF: Well, yes, Your Honor.

6 JUDGE McDADE: Okay.

7 MR. RIKHOFF: What that indicates is just  
8 the total percentage of minority population within the  
9 50 miles. A way of identifying those minority --  
10 larger concentrations of minority population is  
11 comparing the percentage, or in this case 50 percent,  
12 to the percentage of minority or low-income  
13 populations in various block groups. If they exceed  
14 that percentage, then they're identified as a minority  
15 population block group.

16 JUDGE McDADE: Okay. And specifically I  
17 think, in figure 4-5 of your environmental impact  
18 statement, you did that?

19 MR. RIKHOFF: Yes, Your Honor.

20 JUDGE McDADE: Judge Wardwell?

21 JUDGE WARDWELL: Could you say again why  
22 are you going to these block groups? They are census  
23 block groups, correct?

24 MR. RIKHOFF: Yes. We choose block groups  
25 because income information is also provided at the

1 block group level. The smaller, more -- the smaller  
2 spatial area of census block does not provide income  
3 information at that smaller level.

4 JUDGE WARDWELL: Did I read something  
5 about a club quarters classification? Does that ring  
6 a bell? I've got it in my notes here.

7 MR. RIKHOFF: The group quarters, Your  
8 Honor?

9 JUDGE WARDWELL: Is that what it is?  
10 Group quarters?

11 MR. RIKHOFF: Yes. There's a census  
12 designation that's group quarters.

13 JUDGE WARDWELL: That's probably what it  
14 was. What does that mean?

15 MR. RIKHOFF: Essentially it means people  
16 who are not living in a single family home in what  
17 would -- may be considered normal living conditions,  
18 but they are in an institution, either, you know, for  
19 medical reasons or for incarceration.

20 JUDGE McDADE: Okay. And you have two  
21 categories, actually: those in group living,  
22 institutionalized; and those in group living, not  
23 institutionalized.

24 MR. RIKHOFF: That's correct, Your Honor.

25 JUDGE McDADE: Mr. Wilkie has pulled up

1 the exhibit, figure 4-5 from -- and it's on New York  
2 000133B. That is the document you are referring to?  
3 That is the part of your report that you're referring  
4 to?

5 MR. RIKHOFF: Yes, Your Honor.

6 JUDGE McDADE: And the dark spaces -- and  
7 this shows it visually -- are environmental justice  
8 communities within the 50-mile radius. Even though  
9 the overall population is majority, majority, there  
10 are areas within the 50-mile radius that are  
11 predominantly minority. And that's what this was  
12 designed to show?

13 MR. RIKHOFF: Yes, Your Honor, higher  
14 concentrations of minority populations.

15 JUDGE McDADE: Okay. And you do that by  
16 census block or census block group?

17 MR. RIKHOFF: Census block group.

18 JUDGE McDADE: Okay. And census block  
19 group is one step up from census block?

20 MR. RIKHOFF: That's correct.

21 JUDGE McDADE: Okay. And you're using  
22 that because the census block doesn't include  
23 information like on income with individuals?

24 MR. RIKHOFF: That's correct, Your Honor.

25 JUDGE McDADE: So the census block group

1 is the smallest census group that would include the  
2 information you need in order to do your environmental  
3 justice analysis?

4 MR. RIKHOFF: Yes, Your Honor.

5 JUDGE McDADE: Okay. Getting back, once  
6 you have identified within this 50-mile area  
7 environmental justice communities; for example,  
8 communities that are predominantly black,  
9 predominantly Hispanic, do you do anything as part of  
10 your analysis to determine whether or not there is  
11 homogeneity within that community?

12 In other words, do you treat all blacks  
13 the same, all Hispanics the same, or would you have  
14 any way of capturing, for example, based on  
15 Clearwater's discussion individuals who were in an  
16 environmental justice population but who were, say,  
17 institutionalized as Sing Sing, as opposed to  
18 individuals who were in an environmental justice  
19 community, say, in the North Peekskill?

20 MR. RIKHOFF: Yes, we could. Yes.

21 JUDGE McDADE: Okay. How?

22 MR. RIKHOFF: We could go in and using  
23 both -- other sources of information besides census,  
24 you know, overlay the location of certain institutions  
25 by map and draw a correlation between, you know -- as

1 far as the census data can take it down. And then you  
2 could do field investigations if it's warranted.

3 JUDGE McDADE: Okay. Do you? In other  
4 words, as part of your environmental justice analysis,  
5 do you try to do a determination as to whether, say,  
6 the minority population at Sing Sing would be affected  
7 differently and disproportionately from the general  
8 population, even if you concluded that minorities  
9 generally were not?

10 MR. RIKHOFF: If we determined that there  
11 was an environmental effect that we needed to  
12 investigate further, we would. We would try to  
13 determine what specific effects that effect has on  
14 that population.

15 JUDGE McDADE: Okay. To change the  
16 situation slightly and just to do this by way of  
17 analogy, the situation that you didn't discuss here,  
18 if you had an environmental community, an  
19 environmental justice community, down river from a  
20 facility and there was anticipated leakage of  
21 radionuclides, you would view that environmental  
22 justice community separately, even though the  
23 population generally might not be affected and other  
24 environmental justice communities within the 50-mile  
25 radius might not be affected. Is that correct?

1 MR. RIKHOFF: Yes, Your Honor, we could do  
2 that --

3 JUDGE McDADE: Okay. Well --

4 MR. RIKHOFF: -- in that situation.

5 JUDGE McDADE: Okay. Based on the  
6 guidance you have, is that something that you should  
7 do and would do?

8 MR. RIKHOFF: Based on the guidance we  
9 have, yes, it's something we would do.

10 JUDGE McDADE: Okay. Because what I'm  
11 trying to get at is from you is whether or not if you  
12 have identified environmental justice communities  
13 within the 50-mile area, whether you treat each of  
14 them separately based on the estimated impact that the  
15 facility could have.

16 MR. RIKHOFF: Insofar as we try to  
17 determine whether the effect would be disproportionate  
18 or not or high and adverse.

19 JUDGE McDADE: Okay. Now, going back to  
20 the question I asked at the beginning, you have made  
21 a determination and articulated it in the  
22 environmental impact statement that continued  
23 operation of the facility would not have a different  
24 impact during the period of continued operation than  
25 it has now. There would not be a substantial

1 difference on either the socioeconomic or dose impact  
2 on environmental justice communities, correct?

3 MR. RIKHOFF: That is correct, Your Honor.

4 JUDGE McDADE: Did you as part of your  
5 analysis make any attempt to determine, whether it be  
6 now or whether it be during the extended period of  
7 operation, the impact, not would be different from  
8 what it had been but would be disproportional for the  
9 environmental justice community generally or for  
10 certain segments of the environmental justice  
11 community within the 10 or 50-mile radius of Indian  
12 Point?

13 MR. RIKHOFF: From an operational  
14 standpoint, we could not discern that there would be  
15 an increase in the workforce at the plant or that  
16 radiological releases would be increased. So we had  
17 -- we have no effect for which to investigate, no  
18 increased new or added effect that we would be  
19 required to investigate under our current guidance.

20 JUDGE McDADE: Okay. What I'm getting at,  
21 again, is not an increased effect but, having  
22 identified an effect, whether that effect would fall  
23 disproportionately on the environmental justice  
24 community; that is, minority and low-income  
25 individuals, or some subset, some of the environmental

1 justice community? In other words, not the overall  
2 impact, not the direct impact, but whether whatever  
3 that impact was, perhaps, you know -- and assuming  
4 that it's part of the current operating basis, it's  
5 viewed as an acceptable impact, the plant is  
6 operating, continues to operate, my question is just,  
7 do you have any way of capturing and under the  
8 guidance that you have any way of identifying  
9 disproportional impact, as opposed to changes in  
10 impact?

11 MR. RIKHOFF: No, Your Honor. Under  
12 current operating conditions, we have no way of  
13 discerning that at this time.

14 JUDGE KENNEDY: This is Judge Kennedy.  
15 Just following along the same themes, you used the  
16 term "operational impacts." Does that include  
17 accidental releases, limiting this just to normal  
18 releases due to the operation of the facility?

19 MR. RIKHOFF: Normal operating conditions,  
20 no unusual events.

21 JUDGE KENNEDY: So is there a separate  
22 categorization for unusual events, accidents, or  
23 accidental releases from the facility?

24 MR. RIKHOFF: There's a discussion of  
25 postulated accidents in the sites, but this part of



1 the document discusses the effects of renewing the  
2 operating license of the nuclear power plant.

3 JUDGE WARDWELL: By "this" section, you  
4 mean section 4?

5 MR. RIKHOFF: Chapter 4, yes.

6 JUDGE KENNEDY: And I guess we have talked  
7 about chapter 4 and chapter 8. Is there yet another  
8 chapter that discusses non-operational releases or  
9 accidental releases?

10 MR. RIKHOFF: Yes, Your Honor, chapter 5.

11 JUDGE KENNEDY: Okay. So we're going to  
12 get to chapter 5 yet. I'm going to write chapter 5  
13 down. I've got questions on accidental releases. So  
14 if you want to continue on the operational path, I'm  
15 going to circle back around and talk about accidental  
16 releases. So if you want to continue on?

17 JUDGE McDADE: Let me just ask a couple of  
18 questions before we move to that. Your report based  
19 on 2000 census data, year 2000 census data,  
20 anticipates for a basis of 48.47, but that is an  
21 approximate minority population. Do you make any  
22 attempt to project that to the period of extended  
23 operation; in other words, to determine what the  
24 minority population would be in 2010, 2020, 2035?

25 MR. RIKHOFF: Not in license renewal, Your

1 Honor.

2 JUDGE McDADE: Okay. Why not?

3 MR. RIKHOFF: It's not a requirement of  
4 our guidance. It's expected in -- in the  
5 environmental justice analyses that I have conducted  
6 in the past, it's expected that the -- once you have  
7 identified the location of concentrations of minority  
8 and low-income populations, that they're expected to  
9 remain concentrated in those areas and that it may  
10 grow in size but that -- but other than that, you're  
11 just looking at percentage increases in the overall  
12 population of minority and low-income. It's generally  
13 been increasing in all of the analyses that I have  
14 been conducting.

15 JUDGE McDADE: Okay. Under the analysis  
16 you did based on the 2000 data, the minority  
17 population was just slightly below 50 percent. Had  
18 the minority population exceeded 50 percent, would  
19 your analysis have been materially different?

20 MR. RIKHOFF: No, Your Honor.

21 JUDGE McDADE: So, therefore, if the  
22 minority population at the beginning of the period of  
23 extended operation, 2015, were projected to be 55  
24 percent or 60 percent, there would be no difference in  
25 the analysis that you undertook?

1 MR. RIKHOFF: That's correct, Your Honor.

2 JUDGE McDADE: Okay. Can you explain for  
3 us why?

4 MR. RIKHOFF: Because what you are talking  
5 about is just the overall percentage in the total  
6 population. The focus of the analysis is determining  
7 where minority and low-income populations are in  
8 relation to the power plant and what effects the  
9 proposed action, in this case license renewal, would  
10 have on those populations and whether that would  
11 create a new effect or an increased effect or added  
12 effect that we would need to investigate further.

13 JUDGE McDADE: And you did not do any  
14 analysis with regard to the impact of severe accident.  
15 Is that correct?

16 MR. RIKHOFF: That is correct, Your Honor.

17 JUDGE McDADE: So, therefore, you would  
18 not have done based on your understanding of the  
19 guidance any analysis to determine whether or not  
20 environmental justice population generally or segments  
21 of that population who were transport-dependent would  
22 receive a higher dose or a different dose in the event  
23 of a severe accident. That just was outside what you  
24 understood your marching orders to be?

25 MR. RIKHOFF: That's correct, Your Honor.

1 JUDGE McDADE: Okay. So any of the  
2 details, for example, that were raised by Clearwater  
3 of whether environmental justice populations would be  
4 more likely to shelter in place or to evacuate in a  
5 severe accident, that would have been and was outside  
6 the scope of your analysis?

7 MR. RIKHOFF: That's correct, Your Honor.

8 JUDGE WARDWELL: Could you say again why  
9 that is outside your scope? Is it based on guidance  
10 and past history or is there a regulation that exempts  
11 it?

12 MR. RIKHOFF: Regulation Table B1 in 10  
13 CFR Part 51. I don't have that in front of me, but it  
14 basically concludes that the probability of a severe  
15 accident is small based upon the continuing Aging  
16 Management Programs that the risks of accidents are  
17 small.

18 JUDGE WARDWELL: Well, I can accept that,  
19 but that still doesn't address the issue of whether or  
20 not, even though they are small, they didn't say  
21 they're nonexistent. And so isn't it environmental  
22 justice to see whether or not minority or low-income  
23 is disproportionately affected? Could there not be a  
24 situation where they are disproportionately affected,  
25 even though the overall impact is small that was used

1 in characterizing it for the GEIS?

2 MR. RIKHOFF: Yes, Your Honor. That is  
3 possible. But in the case of license --

4 JUDGE WARDWELL: So let me just fix the  
5 point.

6 MR. RIKHOFF: Sure.

7 JUDGE WARDWELL: The regulation doesn't  
8 say that environmental justice is exempt from  
9 considering severe accidents and the resulting  
10 activities that take place from a severe accident.  
11 What you are saying is that the regulations say that  
12 the impacts from severe accidents are small.

13 MR. RIKHOFF: That's correct, Your Honor.

14 JUDGE WARDWELL: Thank you.

15 MR. TURK: Your Honor, may I comment as a  
16 matter of law?

17 JUDGE McDADE: No, as far as I'm  
18 concerned. I mean, we're going to have plenty of  
19 opportunity to comment as a matter of law. And, as I  
20 indicated at the beginning, I am sure that you will.  
21 But is this specifically -- before you comment on a  
22 matter of law, why do you want to?

23 MR. TURK: Your Honor, the final  
24 supplemental environmental impact statement is a  
25 document prepared under NEPA. The National

1 Environmental Policy Act --

2 MR. WEBSTER: Excuse me.

3 MR. TURK: May I make my one-sentence  
4 statement, Your Honor?

5 JUDGE McDADE: Let Mr. Turk finish, Mr.  
6 Webster.

7 MR. TURK: NEPA requires the agency to  
8 address or to consider the reasonably foreseeable  
9 impacts of the licensing action. Severe accidents by  
10 definition are beyond the reasonably foreseeable. And  
11 that has to be kept in mind when we talk about this  
12 contention.

13 MR. WEBSTER: Objection, Your Honor. It  
14 mischaracterizes the law.

15 JUDGE McDADE: Well, it doesn't really  
16 matter whether it mischaracterizes it or correctly  
17 characterizes it. We have to decide the law. And  
18 what I indicated at the beginning of the session is  
19 that our purpose here was to do fact-finding, that we  
20 after finding those facts will apply it to the law as  
21 we see it and, as I also indicated, that all of the  
22 parties will have an ample opportunity to comment on  
23 that in this post-hearing briefs.

24 JUDGE KENNEDY: This may be a good time to  
25 -- and maybe you'll take us to chapter 5, but there's

1 a statement in the prefiled testimony from the staff.  
2 And I'd ask Mr. Wilkie to put up NRC exhibit 000063  
3 and take us to page 34 of that document.

4 And, again, I'm not sure this testimony is  
5 attributed to the current witness, but I'll start  
6 there and allow any other member of the NRC witnesses  
7 to respond.

8 If we start at the bottom of page 34,  
9 starting with the sentence, "While it is possible," I  
10 wonder if Mr. Rikhoff could read that sentence? Yes.  
11 If you could highlight that, maybe start reading that  
12 sentence? And then we'll move to completion of the  
13 sentence on page 35?

14 MR. TURK: Your Honor, may I comment for  
15 a moment? Sherwin Turk. If you'll notice, the  
16 beginning of that answer has the initials "PAM." That  
17 is the testimony of a staff witness, Patricia  
18 Milligan.

19 JUDGE KENNEDY: She's free to respond. If  
20 you would like to read and then respond, that would be  
21 appreciated.

22 MS. MILLIGAN: Certainly. while it is  
23 possible that special populations, such as those  
24 incarcerated at Sing Sing could receive radiation  
25 doses higher than other populations that are

1 immediately able to self-evacuated, any doses received  
2 would be within the EPA dose guidelines.

3 JUDGE KENNEDY: Thank you. That's good  
4 enough.

5 It struck me when I read that that this  
6 was an indication of a disproportionate effect.  
7 Again, it does come from the accident conditions. And  
8 I'm trying to make sure I understand the ongoing  
9 testimony that has been going on here in terms of not  
10 looking at disproportionate effects during either  
11 accidents or operational issues.

12 So maybe you could help us provide some  
13 context for this statement. This to me looks like an  
14 attempt to look for a disproportionate effect, maybe  
15 not a well-stated question. But maybe if you could  
16 start with for accident conditions, are the effects on  
17 the environmental justice population, disproportionate  
18 effects, considered or looked for and then analyzed?

19 MS. MILLIGAN: I'm in emergency  
20 preparedness. So I look at it on an ongoing  
21 operational basis. And I don't specifically look at  
22 EJ populations in the context of emergency  
23 preparedness because we plan for all populations, not  
24 just EJ populations.

25 JUDGE KENNEDY: This statement is



1 attributed, I believe, according to Mr. Turk, to you.

2 MS. MILLIGAN: That is correct.

3 JUDGE KENNEDY: Can you, then, tell us  
4 what this statement means to you and what you're  
5 intending to convey here?

6 MS. MILLIGAN: Certainly. The  
7 Environmental Protection Agency has guidelines for  
8 wanting to take action in the event of a radiation  
9 emergency, either at a power plant or other sort of  
10 facility.

11 The guidelines -- and these are echoed  
12 also by International Council on Radiation Protection  
13 and others -- are about ten rem, which are upward  
14 bounds of 100 millisievert. Below those, there are  
15 ranges. Those that are easy to evacuate can  
16 self-evacuate.

17 There is a range where a recommendation  
18 from the Environmental Protection Agency is  
19 approximately one to five rem. For those that require  
20 additional assistance, incarcerated populations,  
21 institutionalized populations, the range could range  
22 from one up to ten rem or five to ten rem depending  
23 upon the situation at hand.

24 All of these doses are well within the  
25 established federal guidelines. So to me as a health

1 physicist, that would not represent a disproportionate  
2 impact on an institutionalized or incarcerated  
3 individual.

4 JUDGE KENNEDY: You would at least  
5 acknowledge that it is a different effect?

6 MS. MILLIGAN: Sure. But if a neighbor  
7 chooses not to evacuate when others evacuate, they  
8 could also receive a dose that could be different.  
9 That doesn't mean it's disproportionate. If it's  
10 within the guidelines that we have established for the  
11 safety of the public, then in my mind as a health  
12 physicist, that is not a disproportionate impact.

13 JUDGE McDADE: How did you conclude that  
14 any doses received would be within EPA dose  
15 guidelines?

16 MS. MILLIGAN: When we do dose projections  
17 and accident analysis looking to make a protective  
18 action recommendation, we take a look at the plant  
19 parameters, the releases. We do a forward-looking  
20 dose projection over four days.

21 Environmental Protection Agency says that  
22 you would integrate your dose forward over four days  
23 to arrive at a one rem or ten rem or five rem number.  
24 The four days is chosen because that is a reasonable  
25 period of time to ensure that you are able to provide

1 for the population in those areas.

2 So we're not looking at ten rem coming  
3 immediately. It would be something over four days.  
4 If the accident condition were such that it looked  
5 like over a four-day forward-looking dose projection,  
6 that you would be approaching ten rem, then you would  
7 start to move, evacuation, or relocate that  
8 population. And you would have the opportunity to get  
9 them out well before the ten rem dose was ordered.

10 JUDGE KENNEDY: Would you need to look at  
11 the facility where the people were sheltered in place  
12 prior to evacuation in order to make any kind of  
13 reasonable calculation as to the dose that they could  
14 potentially receive?

15 MS. MILLIGAN: I'm not quite sure I  
16 understand what you're looking at there, sir.

17 JUDGE KENNEDY: Under the hypothesis you  
18 just described, somebody is just standing out in the  
19 field five miles south of Indian Point and there was  
20 a release. How would you determine how long that  
21 person could stand out there before they had a dose  
22 that was outside EPA guidelines?

23 MS. MILLIGAN: Oh, I see what you're  
24 saying. Yes, sir. No. The projected action, the  
25 forward-looking dose projections don't consider the

1 impact of shielding of a building. So it would  
2 automatically assume that there is no -- it assumes  
3 there is no building.

4 JUDGE KENNEDY: Yes.

5 MS. MILLIGAN: So it assumes that you're  
6 essentially that fencepost person sitting out there  
7 receiving a dose for the whole four days without any  
8 buildings or any other effects to the shelter.

9 JUDGE KENNEDY: So, given the way that you  
10 are conducting your analysis, whether an individual is  
11 standing out in an open field, whether they are in a  
12 building that provides minimal shielding or  
13 practically none or in a building that provides  
14 excellent shield, your analysis looks to the most  
15 exposed?

16 MS. MILLIGAN: We would consider that with  
17 -- yes, for the doses at which we would start to  
18 recommend -- state; I'm sorry -- which the state would  
19 start to recommend making the decisions to evacuate  
20 the populations.

21 The NRC has spent a lot of time looking at  
22 the impacts of evacuation, sheltering, and some  
23 combination thereof. Protective actions are not  
24 either/or. There's always a combination thereof. You  
25 may choose to shelter, which could reduce your dose

1 for a period of time, and then you choose to evacuate  
2 a population.

3 So our recommendations are always based on  
4 -- the study, the works that we have done at NRC  
5 suggest that that is the best alternative going  
6 forward is to do a recommendation, do a combination of  
7 both.

8 If you shelter and there's been a plume  
9 that has left deposition over a period of time, your  
10 internal dose inside your building could rise because  
11 of air flow and bringing materials in and  
12 concentrating on the environment. However, we know  
13 that if you -- with a shelter, a population, and a  
14 plume would go overhead, your dose could be lower,  
15 then, to evacuate that population afterwards. So we  
16 look at the whole picture when we make our  
17 recommendations in our guidance.

18 JUDGE KENNEDY: Doesn't it assume that the  
19 plume will dissipate over, that there will be some  
20 disposition of radionuclides anywhere under the plume?

21 MS. MILLIGAN: Yes. And that's factored  
22 in the dose projections. It's internal and external  
23 dose. So that would include inhalation; groundshine,  
24 four-day groundshine.

25 JUDGE KENNEDY: Okay. In this analysis

1 where you say that any doses received would be within  
2 EPA dose guidelines, does that calculate in  
3 populations that ultimately could never be evacuated,  
4 for one reason or another?

5 MS. MILLIGAN: I'm not sure I understand.  
6 Could never be evacuated?

7 JUDGE KENNEDY: Yes.

8 MS. MILLIGAN: All populations can be  
9 evaluated.

10 JUDGE KENNEDY: And let me pose as a  
11 hypothetical some of the evidence that was presented  
12 by Clearwater. For example, Sing Sing is a prison  
13 that has approximately 1,700 and something inmates.  
14 It is located in an area that would be a likely avenue  
15 for a plume south of Indian Point.

16 And, again, this isn't fact-finding. This  
17 is just talking about what was presented by Clearwater  
18 is that it would be difficult, it not impossible, to  
19 evacuate the population of Sing Sing in any kind of an  
20 expeditious way, that it would take more time to just  
21 shackle the prisoners, putting aside all of the other  
22 transportation issues and perhaps the lack of staff to  
23 accomplish it in order to move them out. And then  
24 there would be a significant issue as to what to do  
25 with almost 2,000 individuals who have been

1       incarcerated for violent crimes.

2                   MR. SLOBODIEN:   Your Honor?   Your Honor?

3                   JUDGE KENNEDY:   Yes?

4                   MR. SLOBODIEN:   I'm Michael Slobodien for  
5       the applicant.   I'm the Director of Emergency Programs  
6       for Entergy.   I have specific knowledge regarding your  
7       question because of my involvement with the Indian  
8       Point emergency plans, including those which are  
9       applicable to Sing Sing.   If you'd like, I can help  
10      with this response.

11                  MS. MILLIGAN:   Sure.   I'd be happy to do  
12      that.   I met with Colonel Michael Kirkpatrick, the  
13      head of New York Department of Corrections, who is the  
14      highest-ranking official there, also head of their  
15      correctional emergency response team.   And I sat with  
16      him on September 30th for about three hours and went  
17      through the entire emergency planning for Sing Sing  
18      and other correctional facilities for other types of  
19      emergencies in New York State and --

20                  JUDGE McDADE:   Okay.   Let me interrupt you  
21      here for a second.   And then, again, this is not an  
22      emergency-planning contention, but I just wanted to --  
23      again, I posed a hypothetical.   And the statement that  
24      you made on page 35 of your testimony presupposes that  
25      you would be able to react to the incident and make a

1 determination of an appropriate time to begin or  
2 augment evacuation.

3 MS. MILLIGAN: That's correct.

4 JUDGE McDADE: And, again, this is a  
5 hypothetical. It doesn't suggest that there is or  
6 there isn't a population that couldn't be, but what  
7 I'm saying is your statement here presupposes that  
8 every population at some point could be evacuated.

9 MS. MILLIGAN: That's correct. And New  
10 York Department of Corrections is absolutely confident  
11 that they would be able to evacuate Sing Sing Prison  
12 should they be notified by the Westchester County  
13 Emergency Management or by the governor that that  
14 would be necessary to do.

15 And, having reviewed their plans and  
16 talked extensively to staff, I am very confident that  
17 that would be able to occur.

18 JUDGE McDADE: Okay. I don't want to get  
19 too much into emergency planning, but -- sir?

20 MR. SLOBODIEN: Thank you, Your Honor.

21 The emergency plan's goal and the  
22 requirement is to provide reasonable assurance for  
23 protection of the public health and safety for all  
24 members of the public, regardless of their location,  
25 regardless of their condition. As a result, the plans



1 that had been developed are specifically designed to  
2 accomplish that.

3 So in the case of Sing Sing, we know that  
4 the County of Westchester, in which Sing Sing is  
5 located, has the ability to notify the correctional  
6 officials and has -- and the correctional officials  
7 have the ability to carry out in all hazards and  
8 emergency planning, which includes the capability of  
9 doing evacuation, we know that, in part, from the  
10 development of the research done by James Lee Witt at  
11 the request of Governor Pataki at the time.

12 JUDGE McDADE: Does that give a reasonable  
13 estimate as to the amount of time it would take to  
14 remove the population of Sing Sing to a safe area  
15 outside the 50-mile radius?

16 MR. SLOBODIEN: Your Honor, Mr. Witt  
17 described the method by which an evacuation would be  
18 accomplished. I don't recall that he specified the  
19 times.

20 And details of the evacuation plan and the  
21 all-hazards emergency plan for Sing Sing are, as you  
22 might understand, because of the security nature  
23 restricted. So I personally have not seen them.

24 And I do -- I am familiar with the Witt  
25 report, which describes how such actions would be

1 accomplished. I don't recall that it gives times.

2 JUDGE McDADE: Okay. Which then takes us  
3 back to Ms. Milligan. Without knowing how long it  
4 would take to evacuate, are you still confident that  
5 your statement that it wouldn't be beyond the EPA  
6 guidelines would be received?

7 MS. MILLIGAN: I spoke extensively with  
8 Colonel Kirkpatrick about the details of the plans.  
9 And, as Mr. Slobodien indicated, they are, for a  
10 variety of reasons, security reasons, not available to  
11 the public.

12 They will be able to -- upon notification  
13 by Westchester County and the governor, they will be  
14 able to evacuate the population in a timely manner to  
15 ensure that they don't receive doses in excess of  
16 federal guidelines.

17 JUDGE McDADE: Okay. Thank you.

18 JUDGE KENNEDY: I guess maybe it's time to  
19 go back, but first let me confirm, Ms. Milligan, your  
20 work is in emergency planning, emergency preparedness  
21 and you don't feel confident to speak to the issue of  
22 accidental releases from Indian Point and the effect  
23 on the population from an environmental justice  
24 standpoint?

25 MS. MILLIGAN: From an EJ population? No,

1 I'm not.

2 JUDGE KENNEDY: Then I guess we're back to  
3 Mr. Rikhoff.

4 MS. MILLIGAN: Sorry.

5 JUDGE KENNEDY: And I'm assuming we're  
6 going to talk about chapter 5. We've heard about the  
7 operational impacts and its impact on the  
8 environmental justice population. Can you walk us  
9 through the analysis that is performed for accidental  
10 releases if they are and how it cascades into the  
11 environmental justice community?

12 If you want to call up an exhibit, just  
13 let us know. And we'll have it pulled up.

14 MR. RIKHOFF: I don't know what the  
15 exhibit number is, but it's the EIS for Indian Point  
16 on page 4-53.

17 MR. TURK: Your Honor, Sherwin Turk. May  
18 I say something in response to your question to Ms.  
19 Milligan? The question was framed in terms of whether  
20 she was comfortable speaking about accidental releases  
21 in terms of environmental justice populations.

22 She is a health physicist. So if you have  
23 questions regarding accidental releases, she may be in  
24 a position to provide information to you.

25 JUDGE KENNEDY: This question was very

1 specific to the environmental justice community. And  
2 I believe she responded in the negative. Is that  
3 incorrect, Ms. Milligan?

4 MS. MILLIGAN: If you're looking for  
5 environmental justice analyses, I can't do that. I  
6 can talk to the releases from the plant. I can talk  
7 to the releases to the population. But I don't  
8 separate out environmental justice applications in  
9 that. So I'd have to hear your question and work with  
10 Mr. Rikhoff.

11 JUDGE KENNEDY: Would you in your capacity  
12 as a health physicist be able to talk about any  
13 potential disparity in radiation doses to the  
14 environmental justice community?

15 MS. MILLIGAN: Absolutely I would talk  
16 about radiation doses, certainly.

17 JUDGE KENNEDY: Would you be able to  
18 differentiate the general population from the  
19 environmental justice population?

20 MR. RIKHOFF: In this situation -- this is  
21 Jeff Rikhoff for the staff. The environmental justice  
22 analysis for license renewal considers the fact that  
23 there are a lot of potential effects on minority and  
24 low-income populations. The normal operating  
25 conditions to the plant could have an effect as well

1 as in the event of a severe accident.

2           However, since the Commission had ruled  
3 that the likelihood of a severe accident is small, the  
4 chapter 5 discussion of postulated accidents refers  
5 the reader back to the Commission's 1996 license  
6 renewal rule and GEIS analysis that determined that  
7 the risks are small, that all the analyses of  
8 accidents were conducted in the 1996 GEIS.

9           And, therefore, the conclusion is that  
10 it's not likely to occur during the license renewal  
11 term. Therefore, for a postulated severe accident,  
12 the environmental justice analysis discussion on this  
13 page; in particular, the paragraph beginning on line  
14 26 --

15           JUDGE KENNEDY: And we're on page 43 of  
16 NRC 00063?

17           MR. RIKHOFF: That's correct, Your Honor.  
18 Thank you. We state that the potential impacts to  
19 minority and low-income populations would mostly  
20 consist of radiological effects. However, radiation  
21 doses from continued operations associated with  
22 license renewal are expected to continue at current  
23 levels and would remain within regulatory limits.

24           Chapter 5 discusses the environmental  
25 impacts from postulated accidents that might occur

1 during the license renewal term, which include both  
2 design basis and severe accidents. In both cases, the  
3 Commission has generally determined that impacts  
4 associated with such accidents are small because  
5 nuclear plants are designed and operated to  
6 successfully withstand design basis accidents.

7 And the probability weighted impact risks  
8 associated with severe accidents were also small. So  
9 we didn't continue the analysis any further with  
10 regards to accidents.

11 JUDGE McDADE: Were you just reading from  
12 chapter 5?

13 MR. RIKHOFF: That's correct, Your Honor.

14 JUDGE McDADE: Where in chapter 5?

15 MR. RIKHOFF: Oh, I'm sorry. I was  
16 reading from chapter 4, this paragraph that's on the  
17 screen. I'm sorry.

18 JUDGE McDADE: Is there any reference in  
19 chapter 5 in hoc verba environmental justice  
20 populations?

21 MR. RIKHOFF: No, Your Honor.

22 JUDGE KENNEDY: And, again, I guess we  
23 have the same question with regard to accidents that  
24 we do in terms of operational releases. How are we  
25 informed by whether there is a disproportionate nature

1 between the world of community populations, if we are  
2 at all?

3 This just says it's small. It doesn't  
4 differentiate across populations.

5 MR. SLOBODIEN: Your Honor, as a health  
6 physicist, I also may be able to help with your  
7 earlier question regarding --

8 JUDGE KENNEDY: Could you identify  
9 yourself, please?

10 MR. SLOBODIEN: Yes, Your Honor. I'm  
11 Michael Slobodien for the applicant. I might be able  
12 to help with your question regarding whether or not it  
13 is possible to assess impacts for environmental  
14 justice populations. And the answer is yes. We would  
15 only need to know where the population was located and  
16 under what conditions it resides to be able to  
17 determine a dose.

18 So dose and impact could be determined for  
19 any portion of the population by knowing that  
20 information, regardless of whether it is an  
21 environmental justice population or not.

22 JUDGE KENNEDY: Would it be important, as  
23 Clearwater has pointed out, to carry that further and  
24 talk about the transportation dependencies and  
25 evacuation concerns and its potential impact on these

1 off-site doses?

2 MR. SLOBODIEN: Michael Slobodien for the  
3 applicant, Your Honor. Such factors are considered  
4 when we look at dose impact. We consider whether or  
5 not populations will move and at what time they can be  
6 moved within the broad goal of assuring protection for  
7 public health and safety.

8 There is a range of values that we use for  
9 dose, no single value. The highest objective from the  
10 dose standpoint is to avoid clinically significant  
11 doses.

12 JUDGE KENNEDY: Significance determined  
13 by? What would be the criteria for significance,  
14 then?

15 MR. SLOBODIEN: The EPA 400, which is an  
16 Entergy exhibit, Your Honor, does describe what are  
17 clinically significant doses. If you would like, I  
18 can refer you to that.

19 MR. RIGGS: Your Honor, this is Jerry  
20 Riggs for the applicant. I would like to also point  
21 out that whenever we are looking at an environmental  
22 justice analysis, we are considering  
23 disproportionately high and adverse impacts.

24 JUDGE KENNEDY: Yes. I think we are going  
25 to get to that. So hold that thought.



1 MR. RIGGS: Yes, Your Honor.

2 MR. RUND: Your Honor, EPA 400 is Entergy  
3 exhibit 00284.

4 JUDGE KENNEDY: Thank you.

5 MR. SLOBODIEN: And I'm specifically  
6 referring to appendix C, page C-18.

7 JUDGE McDADE: I'm sorry? Could you  
8 repeat that?

9 MR. SLOBODIEN: Yes, Your Honor. Appendix  
10 C, page C-18.

11 JUDGE McDADE: Thank you.

12 JUDGE KENNEDY: All right. Thank you.

13 I guess that's where I was going. Where  
14 I was going next is, in this document that's on  
15 display here, page 00453, the phraseology of  
16 "disproportionately high and adverse impacts" always  
17 seems to be hung together as a phrase.

18 I don't know if this is a legal issue or  
19 something the technical community can speak to, but it  
20 seems in this document, there is some significance  
21 being assigned to that.

22 Would anyone be willing to -- maybe start  
23 with the staff and have them discuss if that is -- Mr.  
24 Riggs will probably help us with -- have some  
25 significance here.

1 MS. MILLIGAN: This is Patricia Milligan  
2 from the staff. From a health physics  
3 emergency-planning perspective, as I mentioned  
4 earlier, doses received within the guidelines would  
5 not be considered to be adverse or disproportionate.

6 JUDGE KENNEDY: I'm just --

7 MS. MILLIGAN: So I wouldn't consider  
8 that.

9 JUDGE KENNEDY: I guess in your capacity  
10 as a health physicist, how would you interpret  
11 disproportionate in this context? Disproportionate to  
12 what?

13 MS. MILLIGAN: In this context,  
14 disproportionate would be well outside the federal  
15 guidelines that are established that could potentially  
16 lead to some sort of health impact. And I think that  
17 is where Mike was going with, Mr. Slobodien was going  
18 with, with his charts.

19 So within this context and these accidents  
20 and the emergency plans in the contentions that were  
21 raised, doses that are received within the federal  
22 guidelines, the guidelines are there to ensure that  
23 things are set.

24 JUDGE KENNEDY: Yes. And I think that's  
25 what -- and maybe it's just my confusion, but it seems

1 like when we move -- and this is an environmental  
2 justice contention -- the idea of a disproportionate  
3 effect -- and now I'm putting my words in here -- a  
4 portion of the community within the 50-mile region, I  
5 don't know if this -- I don't know if anyone here can  
6 really speak to it, but the use of the word  
7 "disproportionate" -- and, as I understand it, you are  
8 putting it in the context as compared to a regulatory  
9 limit.

10 And since this is an environmental justice  
11 analysis section, I'm struggling with I'm looking for  
12 it to be disproportionate relative to the community  
13 within the region. And I'm trying to reconcile that  
14 wording.

15 JUDGE McDADE: Ms. Milligan, if I could --  
16 and just don't agree with me just for the sake of  
17 being agreeable. But, as I understand it, you're  
18 saying that nobody would receive an inappropriate dose  
19 but that you're not testifying that the Sing Sing  
20 prisoner or the resident of Chappaqua would receive  
21 the same dose or different dose. That's not what  
22 you're addressing. You're addressing that neither of  
23 them in you review would receive an inappropriate  
24 dose, outside the guidelines?

25 MS. MILLIGAN: That's correct.

1 JUDGE McDADE: Thank you.

2 MR. SLOBODIEN: Your Honor, Michael  
3 Slobodien for the applicant. The criteria that we're  
4 looking for is disproportionate and adverse. Adverse  
5 in this case is determined by a dose that creates a  
6 clinical response or a clinical measurable symptom.

7 If I can refer to the EPA guidance that I  
8 did a moment ago where you see values, for example --  
9 and it's a range of values, no single value. And the  
10 reason it's a range of values is because of the  
11 difference in human response to the ionizing  
12 radiation.

13 But there is very strong guidance in EPA  
14 and other sources that talks about what are the  
15 thresholds for recognizing clinical effects of  
16 exposure to radiation? The clinical thresholds  
17 typically seem in the range of about 50 rem.  
18 Therefore, the EPA guidance threshold for action, for  
19 taking protective action, at 10 rem is far less and is  
20 designed to ensure that there is no adverse action.

21 There may be, indeed, disproportionate  
22 doses because doses could range from higher doses when  
23 you are closer to the plant to lower doses as you are  
24 further away. There is no effort to say that they  
25 must be uniquely the same, but it's that they not be

1 disproportionate from a clinical perspective.

2 JUDGE WARDWELL: And where is the origin  
3 of that philosophy that you just described and/or  
4 where does the origin of adopting the words  
5 "disproportionately high and adverse impacts" come  
6 from? Is it the original environmental justice letter  
7 or is it some other origin of that phrase?

8 MS. MILLIGAN: If I could just add  
9 something that clarify? It's actually spelled out  
10 fairly clearly in the environmental justice guidance  
11 under the National Environmental Policy Act. And I  
12 think that's one of our exhibits. I don't have the  
13 number here.

14 JUDGE McDADE: What is the title of the  
15 document?

16 MS. MILLIGAN: It's "Environmental Justice  
17 Guidance under the National Environmental Policy Act"  
18 for the Council of Environmental Quality.  
19 "Disproportionately high and adverse human health  
20 effects. When determining whether human health  
21 effects are disproportionately high and adverse  
22 agencies are to consider the following three factors  
23 to the extent practicable: whether the health effects  
24 which may be measured in risks and rates are  
25 significant, as employed by NEPA, or generally above

1       accepted norms. Adverse health effects may include  
2       bodily impairment, infirmity, illness, or death and  
3       whether the risk or rate of hazard exposure by a  
4       minority population, low-income population, or Indian  
5       tribe to an environmental hazard is significant (as  
6       employed by NEPA) and appreciably exceeds or is likely  
7       to appreciably exceed the risk or rate to the general  
8       population or other appropriate comparison group and  
9       where the health effects occur in minority population,  
10      low-income population, or Indian tribe affected by  
11      acute or multiple adverse exposures from environmental  
12      hazards."

13                So, from understanding this, we would not  
14      see an adverse or disproportionately high impact to EJ  
15      populations as a result of the severe accident with  
16      the implementation of emergency-planning protective  
17      action guides.

18                MS. GHOSH: Your Honor, for the record,  
19      this is Anita Ghosh for the staff. That's Entergy  
20      exhibit 00266 entitled "Council on Environmental  
21      Quality. Environmental Justice Guidance Under the  
22      National Environmental Policy Act."

23                JUDGE McDADE: Okay. Thank you.

24                One of the things -- and let me just raise  
25      some issues with my two colleagues here. We are going

1 to take a break in a little bit for one particular  
2 reason. Ms. Guardado should be here by now. Is she?

3 MS. RAIMUNDI: Yes, Your Honor. This is  
4 Karla Raimundi from Clearwater.

5 JUDGE McDADE: Okay.

6 MS. RAIMUNDI: Yes. Ms. Guardado is here.  
7 Yes.

8 JUDGE McDADE: What we would want to do is  
9 to bring her forward. Also, our interpreter is here.  
10 And what we would want to do is to allow the parties  
11 to satisfy themselves of the interpreter's  
12 qualifications so that when we come back, we will be  
13 able to swear Ms. Guardado and also swear the  
14 interpreter and if there are any objections to the  
15 interpreter, to get those on the record.

16 But do you have any questions before we  
17 take that break if you'd like to --

18 JUDGE KENNEDY: I do not.

19 JUDGE McDADE: Judge Wardwell?

20 JUDGE WARDWELL: I do not.

21 JUDGE McDADE: Why don't we take ten  
22 minutes? So it is a quarter after now. Well, why  
23 don't we stay because you may have to talk to the  
24 interpreter. And we will break until half past.  
25 We're in recess.

1 (Whereupon, the foregoing matter went off  
2 the record at 3:16 p.m. and went back on the record at  
3 3:34 p.m.)

4 JUDGE McDADE: Okay, the hearing will come  
5 to order. We have with us Ms. Guardado, and a Spanish  
6 language interpreter, Ilana Gross-Kirzner. Ms. Gross-  
7 Kirzner is certified as an interpreter by the Unified  
8 Courts of the State of New York. Does any of the  
9 parties have an objection to her serving as an  
10 interpreter for Ms. Guardado? Does the staff?

11 MS. GHOSH: No objection, Your Honor.

12 JUDGE McDADE: Clearwater?

13 MR. WEBSTER: No objection, Your Honor.

14 JUDGE McDADE: Riverkeeper?

15 MS. BRANCATO: No, Your Honor.

16 JUDGE McDADE: New York?

17 MS. DEAN: No, Your Honor.

18 JUDGE McDADE: Entergy?

19 MR. TENPAS: No, Your Honor.

20 JUDGE McDADE: Okay. First of all, could  
21 the interpreter just raise your right hand?

22 [INTERPRETER SWORN.]

23 JUDGE McDADE: Okay, and will you please  
24 interpret beginning for Ms. Guardado. Ms. Guardado,  
25 it is necessary for you to testify under oath. Would



1 you please raise your right hand?

2 Whereupon,

3 DOLORES GUARDADO

4 was called as a witness and, having been first duly

5 sworn, was examined and testified as follows:

6 [OATH AND RESPONSE TRANSLATED.]

7 MS. GUARDADO: Yes, I swear.

8 JUDGE McDADE: Okay, thank you. Dr.

9 Edelson (sic), you are a professor of Environmental  
10 Psychology. Could you very briefly explain to us what  
11 that area of study entails?

12 DR. EDELSTEIN: Is this working?

13 JUDGE McDADE: Yeah.

14 DR. EDELSTEIN: I have a Ph.D. in Social  
15 Psychology. At the beginning of the environmental  
16 era, when the National Environmental Policy Act was  
17 signed, which is New Year's Day 1970, you had evolved  
18 within many fields environmental subfields, and in  
19 psychology at that time you had a subfield develop  
20 called Environmental Psychology.

21 You have parallels in other fields as  
22 well. But as an environmental psychologist, I have  
23 spent my entire career, since my doctoral period,  
24 where I did my dissertation on environmental topics,  
25 I've spent my entire time looking at the relationship

1 between people and the surrounding environment, and  
2 the mutual influences that people have on their  
3 environment and the environment has on people.

4 JUDGE McDADE: Okay, and as part of that,  
5 have you been called on to do environmental justice  
6 reviews?

7 DR. EDELSTEIN: I have included  
8 environmental justice in the record I've done. I  
9 haven't done an explicit EJ review, but I have written  
10 extensively about EJ, and I've been involved with EJ  
11 since Bob Bullard did his work in the early 1980's,  
12 and I first learned about it.

13 So but I haven't testified narrowly on EJ.  
14 Usually, my testimony deals with psychosocial impacts,  
15 which includes EJ.

16 JUDGE McDADE: Based on your education and  
17 experience, how would you suggest that an  
18 environmental impact be measured geographically?

19 DR. EDELSTEIN: Well, I think that the  
20 nature of how an interpretation has been made of the  
21 Executive Order 12898 has been to use a geographic  
22 system, where one attempts to identify census blocks,  
23 as we see here.

24 But I think that the NRC's guidance is  
25 correct, in my view, in suggesting that one has to be

1 particular or look at the peculiar impacts on EJ  
2 communities, because in fact EJ communities may not  
3 correspond to what appears on census blocks.

4 Census block data, as we in fact see in  
5 this instance, can easily lead an agency to totally  
6 miss the issues. So the impact statement that was  
7 done by the agency entirely omits the question of Sing  
8 Sing and the other EJ populations that have come up,  
9 in no small part because they rely only on that census  
10 data. I think that what's required --

11 JUDGE McDADE: Let's go back a second.  
12 When you rely on the census data, do you mean census  
13 group data, as opposed to census block data, or are  
14 you meaning something else?

15 DR. EDELSTEIN: Well, I'm glad that you  
16 brought that up, because I think it's interesting that  
17 the argument was made that the larger scale data, the  
18 census group, the group block data, had to be relied  
19 upon, because there was no income data at that scale.

20 But there is actually -- I think the  
21 smaller scale had no income data. There is, however,  
22 data on minority status, on race, for the smaller  
23 scale. So it's possible to do an EJ analysis at a  
24 smaller scale than was done here. It was the fact  
25 that they relied on needing the income to do it.

1           But in fact, if you look at what was  
2 produced, they could have just as easily worked at a  
3 smaller scale. What I'm talking about is actually  
4 going to a smaller scale yet. It involves being  
5 familiar with the distribution of groups, the  
6 demographics, the populations that exist in an area  
7 that may be reasonably impacted.

8           If we take the emergency planning zone and  
9 we take the larger zone, the point is that the staff,  
10 in preparing the document, I believe has an obligation  
11 to have enough familiar with the social system that  
12 they're working with, to recognize environmental  
13 justice issues that may not be visible in the type of  
14 analysis that's done now.

15           We actually have a perfect example of  
16 those, if you want to indulge me, which is that there  
17 was a report prepared by a staff member of NRC,  
18 discussing environmental justice, and that report  
19 actually gives an example of what I'm talking about.

20           Let me have one second. Oh, here it is.  
21 It's Clearwater Exhibit 51, I believe. It's a report  
22 by a gentleman named Matthews. As we see here, he's  
23 the Director of the Division of New Reactor Licensing,  
24 and his report is "Environmental Justice and the NRC:  
25 A Progression to Excellence."

1 I don't know if you're familiar with this  
2 document and how slowly I should walk through it, but  
3 if we move to the next couple of pages, move past this  
4 one and this one, the next page. They present here --

5 JUDGE McDADE: Please, don't walk slowly.

6 DR. EDELSTEIN: Okay.

7 JUDGE McDADE: This is an exhibit we've  
8 received and we reviewed it.

9 DR. EDELSTEIN: Fine. Then I'll walk  
10 quickly. I'll stride. The point that's made here is  
11 that in the first case that's presented, the LES case,  
12 they use a conventional approach and they miss the  
13 impacts. In the second case, they start out with a  
14 conventional approach, but then they made themselves  
15 available and learned about a community that was an EJ  
16 community, that they were then able to -- thank you.

17 They were then able to meet with and to  
18 identify what the issues were, and to accommodate in  
19 a mitigation the needs of that community. That  
20 basically illustrates my answer to your question,  
21 which is I believe that the approach that's used now,  
22 there's no harm associated with it, unless you don't  
23 go any further.

24 But I believe that you need to push  
25 further as an agency, to really look and see what the

1 subgroups are that will not appear. The NRC, I  
2 believe, has a directive that indicates that the  
3 studies should not artificially inflate or dilute the  
4 effects that are studied, and I believe that the  
5 approach that's currently used actually dilutes, or  
6 allows effects to be washed away; that an approach  
7 that is more on the ground would find.

8 In the case of Sing Sing, which I  
9 particularly looked at, and some of the other cases  
10 that my colleagues here have, are prepared to discuss,  
11 we have issues that in fact were missed entirely by  
12 the current analysis.

13 I would submit that the agency would be  
14 well-served if its approach, if its method bored  
15 deeper, so that it did not miss those instances.

16 JUDGE McDADE: In this particular  
17 instance, a subset of the minority population such as  
18 Sing Sing, in your view needs to be viewed singularly,  
19 to look at the specific impacts that it would have on  
20 them. You're not suggesting, for example, not to  
21 suggest one way or the other a belief of whether  
22 nursing homes are or not EJ communities.

23 But there are over 1,000 nursing homes  
24 within the 50-mile area. Not that they should look at  
25 the impact of each one of a 1,000, but when you have

1 a large environmental justice community such as Sing  
2 Sing, the specific impact on that and the individuals  
3 there needs to be considered, in your view?

4 DR. EDELSTEIN: Well yes. I mean I  
5 believe that a proper social impact assessment would  
6 identify the other populations as well. But the  
7 particular obligation to look at EJ communities would  
8 certainly not miss something so obvious as Sing  
9 Sing, which is actually on the maps that are prepared  
10 in the impact assessment.

11 But yet, even though they're there, even  
12 though it's apparent, there is no discussion of it.  
13 So I believe that, you know, the obligation of a hard  
14 look impact assessment is to look at a whole range of  
15 dynamics, but certainly a key EJ population should not  
16 be missed as Sing Sing was.

17 JUDGE McDADE: And excuse me, could you  
18 call up Clearwater 30? Could you blow that up just a  
19 little bit? Okay. Now the sort of maroon areas on  
20 there are identified as environmental justice  
21 communities; is that correct, Dr. Edelson?

22 DR. EDELSTEIN: To my understanding, yes.

23 JUDGE McDADE: Okay. If you slide up just  
24 a little bit, the other way. Okay, indicates  
25 potential EJ areas for those. Okay. Now is the area

1 south of Indian Point on the east side of the river,  
2 just where it says "Ossining," does that include Sing  
3 Sing?

4 DR. EDELSTEIN: Based on my comparison of  
5 maps, which I did, I believe it does, yes.

6 JUDGE McDADE: Okay. But you're saying  
7 that it's not enough just to identify that there is an  
8 environmental justice population there, but it needs  
9 to be looked at specifically to the impact on that  
10 environmental justice community; is that correct?

11 DR. EDELSTEIN: That is correct. In fact,  
12 the whole purpose of not addressing environmental  
13 justice in the generic study, but having it go into  
14 the site-specific study, is that the peculiar,  
15 particular or site-specific issues can in fact be  
16 magnified and understood at that level, so that you,  
17 the decision-makers, have information as you make  
18 decisions about what the potential environmental  
19 justice impacts are.

20 Just putting it on a map and not even  
21 recognizing that there are any implications of it  
22 doesn't, in my mind, make any sense. When you look at  
23 Sing Sing and the nature of an incarcerated  
24 population, which has, as I've discussed at length in  
25 my report, characteristics that are not even similar



1 to other EJ populations necessarily, you would never  
2 understand any of these issues by simply looking at  
3 that splotch on this diagram.

4 JUDGE McDADE: Okay. Now at Sing Sing, I  
5 believe your testimony was approximately 89 percent of  
6 the population is minority?

7 DR. EDELSTEIN: It was 87. It was  
8 somewhere in that range.

9 JUDGE McDADE: Okay, and you also  
10 identified other similar or somewhat similar  
11 facilities within the 50 mile, Rockland City Jail,  
12 Westchester County Jail that had similar high rates of  
13 minority populations?

14 DR. EDELSTEIN: That is correct.

15 JUDGE McDADE: Okay. From your  
16 standpoint, how should the minority population at Sing  
17 Sing and these other similar facilities, and for our  
18 purposes right now, to treat them as a unified group,  
19 and if you believe not, to differentiate between them,  
20 and I believe you testified that there was also  
21 approximately almost 25 other institutions, jails,  
22 within the 50 mile region that would have similar  
23 issues. Not identical, but similar; correct?

24 DR. EDELSTEIN: Yes.

25 JUDGE McDADE: Okay. How would the -- you

1 had discussed in your testimony, but could you  
2 elaborate for us the special circumstances of a  
3 population at facility like Sing Sing, of how they  
4 would be impacted differently than individuals living  
5 in the surrounding area?

6 DR. EDELSTEIN: Well, I think the  
7 similarities are few, and the differences are many,  
8 and let me come back to a comment that was made in the  
9 prior discussion, about the possibility that people  
10 could leave the area and evacuate, but the people in  
11 Sing Sing would not have volition as to whether they  
12 could leave or not. They're incarcerated.

13 Whether or not they have an opportunity to  
14 evacuate or whether they stay is up to others besides  
15 themselves, and that's the primary difference, that  
16 loss of control over the decision-making means many  
17 things, but among them, one has to trust those in  
18 control to in fact have the best interests in hand and  
19 the ability to deliver them, so that you feel secure.

20 We're talking here about a potential  
21 radioactive release. As an environmental  
22 psychologist, one of the first things that comes to my  
23 mind is the fact that the kind of a risk personality  
24 of a radioactive release is that you have a hazard  
25 that's invisible.

1           You don't know if it's there; you don't  
2 know if it's not there. You don't know how much  
3 you're being exposed to, and as a result, it's quite  
4 possible during an event for people to become  
5 extremely concerned when there may not be much  
6 exposure and to be not much concerned when there is an  
7 exposure.

8           So we have a situation that in a captive  
9 environment, where people may believe that they're  
10 being exposed to a hazard, but no action is being  
11 taken to remove them, you're really inviting a  
12 situation in which the social order disintegrates.

13           The guards, of course, are in exactly the  
14 same situation. We can look most clearly to the  
15 Katrina situation, where the ACLU did a superb report,  
16 taking a look at what happened in the penitentiary  
17 there, the Orleans Penitentiary, and what we see, the  
18 Orleans Parish Penitentiary, OPP, what we see is a  
19 social disintegration.

20           What we see is inmates left locked in  
21 cells, even in the face of flooding. What we see is  
22 guards who were locked in. We see other guards who  
23 didn't show up or couldn't get in. We see the whole  
24 prison situation, which is normally is a total  
25 institution, a carefully controlled situation, we see

1 that control structure potentially breaking down.

2 We also see potential racism and disregard  
3 for people. We see mistreatment of prisoners. We see  
4 people escaping, even though they were taking major  
5 risks to do so. I can go on and on. I detail this at  
6 length in my report, and of course the ACLU does as  
7 well.

8 JUDGE McDADE: And that creates risks  
9 beyond the risk of just dose?

10 DR. EDELSTEIN: Well you know, as a  
11 psychologist, I have to point out that the issue of  
12 health risk is a broader question of dose, and  
13 depending on where one is looking for authority, the  
14 word "health" does come up.

15 JUDGE McDADE: But looking at health in a  
16 broader sense, we start off with the normal situation  
17 for people outside of Indian Point, where they may be  
18 exposed to dose. They also have the opportunity of  
19 staying or leaving.

20 DR. EDELSTEIN: That's correct.

21 JUDGE McDADE: Your testimony, as I  
22 understand it, and I'm not trying to put words in your  
23 mouth. I just want to make sure I understand your  
24 position correctly, is that in addition to the  
25 potential health risk from dose, there was a potential

1 health risk from the breakdown of social order, that  
2 there would be apprehension on the part of the prison  
3 population.

4 There would likely be a smaller guard  
5 population, as they also chose to exit the area, and  
6 as a result, the ability to maintain order, which is  
7 essential in a facility like Sing Sing, would be  
8 diminished.

9 DR. EDELSTEIN: I would agree with your  
10 characterization completely.

11 JUDGE McDADE: Well don't agree with it.  
12 I'm just trying to make sure I understand your  
13 characterization.

14 DR. EDELSTEIN: No, I think you're  
15 completely accurate in summarizing many of my points.  
16 I can go further. I mean I think --

17 JUDGE McDADE: With regard to the dose  
18 itself, is there anything specifically about a  
19 facility like Sing Sing that would tend to increase  
20 the dose, again just not focusing on the loss of  
21 social order but on the dose itself, that would be  
22 distinct from, you know, residents in the area?

23 DR. EDELSTEIN: Well, of course. We have,  
24 I think, acknowledged already that these "special  
25 populations," a category under which Sing Sing falls,

1 would not be evacuated.

2           Initially, they would be sheltered, and as  
3 such they would be allowed to receive a dose in a  
4 hazardous situation as much as ten times higher,  
5 certainly a disproportionately higher dose than other  
6 people who were not incarcerated, or not in a special  
7 facility.

8           So I think there is a dose implication.  
9 We have a question of how long people might be held in  
10 that situation. In the case of the Japanese reactor  
11 at Fukushima-Daiichi and in Chernobyl, we know that  
12 those events lasted on the order of ten to twelve  
13 days, when you know, the intensity of the event.

14           Of course, those events are never over;  
15 they continue. But the intense period was an extended  
16 period. If we started sheltering folks for that  
17 amount of time, their dose would be very high. Of  
18 course, the question of whether they would be  
19 evacuated is a very vague issue. When would they be  
20 evacuated? How far into it?

21           That decision apparently is, as far as I  
22 can understand it, would not be made until some time  
23 during the event, and then there would be a question  
24 of the efficacy of whether it could be carried out.  
25 An allusion was made to a plan, which we have never

1 seen, and that information has not been shared before.

2 But the question is that even in the face  
3 of good planning, which the Japanese certainly had, I  
4 don't know about the Russians or the Soviets, but the  
5 Japanese certainly had good plans. What we learned  
6 from Fukushima, among many other things, is that the  
7 best laid plans can go awry when you're dealing with  
8 the complexity of, in that case, multiple disasters.

9 So you know, I think there's a reasonable  
10 expectation that the prisoners in Sing Sing could be  
11 there for an extended period of time, potentially  
12 longer than others. There's a clear complexity even  
13 from the time it takes to shackle the prisoners to  
14 move them.

15 The question of whether the number of  
16 vehicles which Mr. Witt, for example, enumerates,  
17 would they be able to be commandeered all at one time?  
18 Would the evacuation occur over a long period of time  
19 if it did occur? These are all things we don't know.  
20 But I think on the question of dose, we can assume  
21 that this population may very well have a higher dose  
22 and a disproportionately higher dose than people who  
23 are not incarcerated.

24 JUDGE McDADE: Okay. Part of the NEPA  
25 analysis involves identifying impacts. Part of it

1 also involves identifying mitigating criteria,  
2 mitigating potential. In your view, under your  
3 analysis, what would you focus on as the principle  
4 avenues of mitigation?

5 DR. EDELSTEIN: Well, I think there are a  
6 number of issues, and I do enumerate them, so I may  
7 not cover all of them in my comments. But I think  
8 first of all there's the question of shelter in place.  
9 Since we know this population in Sing Sing is going to  
10 be sheltered, what we don't know is to what extent  
11 Sing Sing provides shelter.

12 People may be locked in, but are they  
13 being sheltered, in effect. You know, that's a  
14 question of ventilation, it's a question of whether  
15 windows are intact.

16 It's a question of whether or not people  
17 have ventilation. On one hand, if they have exterior  
18 ventilation, they may be exposed in that way.  
19 If the ventilation is shut down, they'll be suffering  
20 in a different way.

21 So the question of doing an assessment of  
22 Sing Sing and its ability to in fact serve as shelter  
23 is the first step I would recommend.

24 JUDGE McDADE: And given the fact that  
25 NEPA, for a federal agency, is basically requiring



1       them to do an investigation, an analysis, an  
2       evaluation, but the federal agency has no capacity  
3       control things, such as the physical structure at  
4       Sing Sing, is it your testimony that even though they  
5       can't control those factors, they need, as part of  
6       their analysis, to evaluate them and make a  
7       determination of their capacity to mitigate, so that  
8       that would inform the decision for the federal action  
9       here, whether to license or not relicense?

10               DR. EDELSTEIN: Well, your question  
11       perceptively gets at one of the key issues here, which  
12       is that the operation of Indian Point is not occurring  
13       in a vacuum.

14               It's occurring in a complex environment,  
15       and even if we just look at two institutions, Sing  
16       Sing and Indian Point, we realize that the ability of  
17       -- to mitigate impacts originating at Indian Point has  
18       a great deal to do with many factors relating to the  
19       operation of Sing Sing, from its management and  
20       control structure and its physical structure, and  
21       whether or not enough water is kept on hand, and a  
22       whole host. Whether members of the public are allowed  
23       to stay there. There's a whole set of issues here.

24               So to answer your question, I would say  
25       that you can't get away from these interactive

1 complexities, that in fact in this instance, the  
2 mitigation of an impact potentially occurring at  
3 Indian Point requires that information be known about  
4 Sing Sing, and that one have some reasonable  
5 expectation that Sing Sing can be made protective for  
6 the people who are captive there.

7 They are an EJ population that is captive,  
8 and unless one can have reasonable assurance that they  
9 will be protected, then there is no mitigation for the  
10 potential impact at Indian Point.

11 JUDGE McDADE: Okay. Mr. Papa?

12 MR. PAPA: Yes sir.

13 JUDGE McDADE: No need to rise, sir. At  
14 one point, you were a resident at Sing Sing?

15 MR. PAPA: Yes, for 12 years sir.

16 JUDGE McDADE: How long ago?

17 MR. PAPA: I went in in 1985 and I left,  
18 I received executive clemency from Governor Pataki in  
19 1997.

20 JUDGE McDADE: And based on your  
21 experience there, can you share with us your  
22 observations about the physical structure, that would  
23 either make it appropriate or inappropriate as a  
24 shelter in place?

25 MR. PAPA: Well, as a shelter in place, it

1 would be totally inappropriate. It's a very old  
2 structure built in 1826. The buildings, I lived there  
3 for 12 years, so I know the place inside-out.

4 Let me just describe the housing areas.  
5 I lived in many of the blocks, the housing blocks,  
6 incarcerate about 700 prisoners at one time. There  
7 are stacked tiers upon tiers of cells, like a giant  
8 airplane hangar in a room, and they have huge windows.

9 There's no ventilation system in the  
10 building at all. The only way you can get air is if  
11 the windows are open, and sometimes the windows are  
12 shut. From my experience, prisoners break the windows  
13 all the time, so there's always holes in the windows.

14 If a situation happened, where a nuclear  
15 accident occurred, it would be total chaos, in my  
16 view. There's, at that point, the survival instincts  
17 would kick in. Many of the prisoners, they're doing  
18 an extraordinary amount of time, a lot of them. So  
19 they would have nothing to lose.

20 The danger element would be elevated, not  
21 only for other prisoners but for also guards. It  
22 would be total chaos. In shelter, not a good place to  
23 be.

24 JUDGE McDADE: You mentioned the  
25 ventilating system there. Would there be anyway to

1 filter out any potential contaminants coming into --

2 MR. PAPA: No, because there is no  
3 ventilation system. There's just a giant airplane  
4 hangar with windows. That's it. There's no air  
5 conditioning. This is very old buildings, the housing  
6 areas. There's A block, B block, Honor block, and  
7 they're very old, and the hallways are long corridors.  
8 Very, when it's summer time, very humid. There's no  
9 ventilation at all.

10 JUDGE McDADE: Okay. Dr. Edelson talked  
11 about the potential for the breakdown of social order  
12 under a circumstance such as a nuclear release nearby.  
13 Based on your experience, is that a likely or an  
14 unlikely probability?

15 MR. PAPA: Very likely. I lived there for  
16 12 years. I've been through institutional riots,  
17 where just a stabbing could cause the whole population  
18 to go berserk. So if something like this happened,  
19 like I said before, people's survival instincts will  
20 kick in, and there will be total chaos throughout the  
21 prison.

22 JUDGE McDADE: Can you elaborate on that?  
23 What do you mean by "chaos"?

24 MR. PAPA: I mean the predatory prisoners  
25 would take advantage. They would try to escape, let's

1 say people were being evacuated. They would use that  
2 as an advantage to try to escape. The prison, they'll  
3 use it to cause a riot, to become violent, to try to  
4 take over.

5 JUDGE McDADE: Would that put at risk the  
6 health or welfare of the other individuals?

7 MR. PAPA: Everyone in the prison,  
8 including guards.

9 JUDGE McDADE: Right. I believe in your  
10 testimony you talked about the potential for arson.  
11 How could that occur?

12 MR. PAPA: Oh yes. Just people would burn  
13 their cells, light their mattresses up, start fires.  
14 I've seen it happen without a potential hazard like a  
15 nuclear incident.

16 JUDGE McDADE: And you're talking about a  
17 precipitant that involved only one of two people, not  
18 something that could be a precipitant for all 1,700  
19 inmates?

20 MR. PAPA: Well, what happens in a setting  
21 like this is a group mentality occurs, where if one  
22 person did it, another person would emulate it and it  
23 would go on, and the whole prison would catch on.

24 JUDGE McDADE: Okay. Dr. Larsen, I  
25 believe you testified about the impact on health care,

1 particularly for poor individuals, people who don't  
2 have the ability to pay for medical care. Could you  
3 elaborate on how they would be disadvantaged in the  
4 event of an incident at Indian Point?

5 DR. LARSEN: Well, my experience directly  
6 comes in terms of an environmental justice population,  
7 from my experience being medical director of National  
8 Disaster Medical System Operations in New Orleans, in  
9 which it's something I hope I never, ever see again,  
10 in terms of the total kind of breakdown of protection  
11 for those who are sick, those who are in hospitals,  
12 those who are in nursing homes, those people who are  
13 disabled, minority individuals.

14 Essentially when I arrived in New Orleans  
15 on August 31st of 2005, there were 40,000 people left  
16 behind, who could not evacuate for one reason or  
17 another. Primarily they were poor, they had no means  
18 to, or else they were in a hospital or nursing home,  
19 disabled and so on.

20 So that's the type of population that in  
21 any disaster response we're extremely worried about,  
22 and if we have advance notice, we certainly try to  
23 evacuate those people ahead of time, especially based  
24 on our knowledge of what happened at Hurricane  
25 Katrina.

1           The problem is is that, you know, as an  
2 emergency room doctor, I have daily experience with  
3 the fact that folks come in, and we are, as an  
4 emergency department and as emergency docs and nurses,  
5 and as hospitals, we're required to take care of  
6 everyone. We can turn no one away, which I think is  
7 a great thing.

8           However, the problem is is that if you  
9 don't -- a lot of things we can't fix in the emergency  
10 department, and certainly in the case of a nuclear  
11 exposure, in which people needed follow-up, that's one  
12 of the biggest problems, is us getting follow-up for  
13 folks who do not have the resources, who do not have  
14 insurance.

15           Even for folks who do have protection  
16 under Medicaid, it is very hard to find a doctor that  
17 will take patients who need Medicaid, especially a  
18 patient who may have a problem like an orthopedic  
19 problem and so on. So this is something that we deal  
20 with.

21           Although we take care of them in the  
22 emergency department and give them full care, many of  
23 them need follow-up, and many of them need additional  
24 care. If they don't have the resources, they are  
25 often left to the street, left to their own devices,

1 and then very often reappear in our emergency  
2 departments in a much sicker way.

3 You know, one of the problems that  
4 certainly would face us in any kind of an emergency  
5 situation involving Indian Point is whether we would  
6 have even the staff to take care of folks, because  
7 people would be concerned about their own families.

8 We all live in the Greater Hudson Valley  
9 area. I mean we do have some nurses that commute up  
10 to 50, 60 miles, a few docs that do. But the Point is  
11 that we all kind of live in this 50-mile corridor, and  
12 certainly if there was some kind of nuclear problem,  
13 I would, if I was not at home, I would certainly be  
14 extremely concerned about my family and how they are  
15 going to evade that, and whether I'm going to come to  
16 work the next day or whatever.

17 So certainly, you know, medical folks,  
18 police, fire, EMS, extremely dedicated, volunteers,  
19 extremely dedicated will rise to an incredible level  
20 in disasters, and have done all types of heroic  
21 things. But the biggest thing that we have found,  
22 that interferes with their ability to do that, is when  
23 their own families are affected.

24 Not so much themselves, but what happens  
25 with their own families, and worrying about those



1 things, and that's what determines whether people, you  
2 know, show up to work the next day, to perform their  
3 duty or even at the very time that the incident may  
4 occur.

5 So anyway, the experience of Katrina and  
6 watching the thousands of folks that basically we had  
7 no hospitals that were functioning in the Greater New  
8 Orleans area. There's approximately 24 of them. 23  
9 had sustained significant damage due to flood waters.  
10 The three that were operational had no staff,  
11 precisely because of the reasons that I talked about,  
12 because folks were dealing with their own tragedies.

13 Their own houses were flooded. Their own  
14 -- they had lost family members. They were, you know,  
15 whatever, dealing with all those series of problems,  
16 and they couldn't get to work because the roads were  
17 flooded and blocked and all those kinds of reasons.

18 So those hospitals, the three hospitals  
19 that could structurally go on, didn't operate. Our  
20 responsibility, and you know my responsibility in  
21 terms of the federal government's response was  
22 basically to set up a new hospital, and we did that in  
23 the New Orleans International Airport, the Louis  
24 Armstrong International Airport, and screened and took  
25 care of 40,000 folks, which about 6,000 were extremely

1 sick. 3,000 of them had to be evacuated by U.S. military  
2 jets over a period of -- to all across America over a  
3 period of days.

4 And certainly, all these folks, in  
5 addition to the flooding and all that stuff, were  
6 exposed to a large variety of all kinds of toxic mess  
7 that was completely, you know, had engulfed 80 percent  
8 of New Orleans.

9 JUDGE McDADE: Okay. Doctor, focusing on  
10 the environmental justice population within the area  
11 of Indian Point, and focusing on the disparate effect  
12 on that population as opposed to the population  
13 generally, and I'm summarizing a bit here, but if you  
14 think my summary is inaccurate, don't accept it.

15 But that you would anticipate, in the  
16 event of a nuclear accident at Indian Point, that  
17 there would be less medical care available in the  
18 surrounding area than before the accident, for the  
19 reasons that you stated.

20 DR. LARSEN: That's correct.

21 JUDGE McDADE: And as a result of that,  
22 individuals who because of a lack of funds would be  
23 unable themselves to transport out of the area to  
24 receive and to seek medical treatment, that they would  
25 be disadvantaged as opposed to more affluent

1 population, that would be able to seek medical  
2 attention in more remote areas?

3 DR. LARSEN: That's correct.

4 JUDGE McDADE: And would there also be an  
5 issue for those people who chose to remain in the  
6 long-term, that they would have, if they did not have  
7 access to medical care through their personal funds or  
8 through insurance, would be unable to get follow-up  
9 monitoring or follow-up care for any exposure that  
10 they may have received?

11 DR. LARSEN: Yes. In addition, one of my  
12 big worries, just based on how regular folks who do  
13 not have insurance and resources have to deal with  
14 their illnesses on a daily basis.

15 JUDGE McDADE: Is there any other  
16 disparate impact on low income people that you would  
17 want us to focus on?

18 DR. LARSEN: Well again, those folks don't  
19 have the vehicles, and especially folks who -- low  
20 income folks who also have people with special needs  
21 in their homes, who need special vehicles or have to  
22 transport special devices; maybe there's a respirator  
23 or maybe there is oxygen, maybe there is some type of  
24 electronic device.

25 All those folks would not only need, you

1 know, they need an additional form of transport, and  
2 they do take often additional forms of transport, just  
3 to get their own medical care. So those kind of  
4 disabled populations and special needs populations are  
5 always a huge concern in any kind of disaster  
6 response.

7 But those people would not get evacuated  
8 in a timely manner, would probably get higher doses,  
9 and would also have much more problems in addition to  
10 getting follow-up care.

11 JUDGE McDADE: Okay. Putting the focus  
12 away, for the moment, for low income and putting it on  
13 minority, what would be the disparate impact on  
14 minorities in your view, from a health care  
15 standpoint?

16 DR. LARSEN: Well I think unfortunately,  
17 for minorities, they come from generally poorer  
18 income, they don't have resources, they don't have  
19 cars. If you look at who takes public transportation  
20 around the Hudson Valley, you'll see primarily people  
21 of color, Hispanics, Hispanic-Americans. They're the  
22 ones who are on the buses.

23 They're the ones who, you know, that's how  
24 they get around, so they don't have vehicles. They're  
25 the ones that are on the trains. So when it would

1       come to evacuation, that would be obviously a big,  
2       just for the -- that would be a big problem. That was  
3       exactly what the problem in New Orleans was, that  
4       those folks didn't have a car. They didn't have a car  
5       and they may not --

6               And the other thing they didn't have was  
7       they didn't have money for a hotel when they got 100  
8       miles out of New Orleans. They maybe didn't have  
9       family. Maybe they didn't even have a phone to call  
10       or those resources, or maybe those things were broke  
11       down when they realized they needed to get out.

12              So you need, in order to be mobile in this  
13       society, you need to have resources, and you need to  
14       have a vehicle, you need to have a car and you need to  
15       have cash, so that if you don't have family or you  
16       don't have someone to take you in, or there's not a  
17       shelter that you can go to, you know, you have some  
18       way of providing for yourself for food and your family  
19       and so on.

20              JUDGE McDADE: Okay. Do you focus at all  
21       on the sort of unique pockets of environmental justice  
22       populations, such as Sing Sing?

23              DR. LARSEN: We do. That became, and  
24       again, a lot of this -- America had never experienced  
25       a disaster like New Orleans before. So all these

1 questions sort of came up. Hopefully, we will learn  
2 some things. But what we certainly had to deal with,  
3 you know, multiple prison populations in the Greater  
4 New Orleans area, and actually in the whole Gulf  
5 States.

6 Look, that affected 90,000 square miles.  
7 So there was a lot of prisoners that needed to get  
8 evacuated. A lot of them have ongoing medical issues  
9 without any problems; some of them had additional  
10 problems because of the flooding and sick and no water  
11 and no food.

12 So all of those kinds of things become --  
13 it's a very difficult sort of population to deal with,  
14 in that you've got to have guards, you need  
15 protection. There are some prisoners that are going  
16 to be totally cooperative and are doing their time,  
17 and maybe there's even obviously some people who are  
18 there who are innocent.

19 But there are some folks who are in those  
20 prison situations who want to get out, and will do  
21 anything they can to go out, in terms of hurting and  
22 harming medical folks, prison guards, whoever's in  
23 charge of them, and will use that advantage. So those  
24 kinds of situations have be set up, so that we can get  
25 proper care.

1 I mean giving medical care within a prison  
2 population is a very sort of -- it's a specialty  
3 actually, and because there's all the issues that go  
4 along, you know, and there's all the questions that go  
5 along with prisoner care. So it makes it very  
6 difficult to do, and especially difficult to do if  
7 you're in a kind of on the move, on the run. You've  
8 got a population that is not in a stable, secure  
9 building, which you can control.

10 JUDGE McDADE: Okay, thank you. Mr. Mair,  
11 you're an employee of the New York Department of  
12 Health?

13 MR. MAIR: That is correct, but I am not  
14 here representing New York State Health Department.  
15 I am here --

16 JUDGE McDADE: As a resident of Peekskill.

17 MR. MAIR: As a former resident of  
18 Peekskill, but also as a national environmental  
19 justice expert. In fact, I was amongst those who  
20 helped draft the definition of terms of what is and  
21 what isn't environmental justice.

22 I've traveled the country, training and  
23 educating University professionals. I've testified  
24 and spoke a training forums, the Albany Law School  
25 with regards to training attorneys on environmental

1 justice, environmental issues.

2 So while I have a statistics, GIS spatial  
3 analysis background and a public health research  
4 background professionally, my passion is that of  
5 advocating for applying science and objective analysis  
6 to the needs of serving the poor, and I do that as an  
7 environmental justice, as it would say, organizer, and  
8 a person who tries to help big government and big  
9 business get it right.

10 JUDGE McDADE: Okay. You're involved with  
11 several organizations that focus on environmental  
12 justice issues?

13 MR. MAIR: That's correct.

14 JUDGE McDADE: Could you briefly describe  
15 not just who they are, but what their purpose is, what  
16 their function is, what they do?

17 MR. MAIR: Certainly. Let me go to the  
18 beginning. Dr. Benjamin Chavis of the United Church  
19 of Christ, who basically got a grant, pioneered the  
20 initial study, along with Dr. Charles Lee, who's now  
21 working at the EPA, who was the primary researcher at  
22 that time. Vernice Miller, who happened at that time  
23 to be a graduate assistant and intern there, they  
24 published the first toxic waste and race analysis.

25 Up until then, we've had issues of spills,



1 the harm that was done. They were often presented by  
2 industry and government as incidents, as disconnected  
3 phenomena only to be used in the vacuum of whatever  
4 particular thing that happened.

5 And what this study and analysis did,  
6 because a lot of people started comparing, and as I  
7 said asking questions, they noticed there was an  
8 observed pattern that was communicated up, that says,  
9 you know, a lot of these things are occurring in low  
10 income, poor and heavily minority areas.

11 An analysis was done, and the statistical  
12 results actually found that that indeed was the case,  
13 that if you're low income, predominantly minority, it  
14 was more than likely that your community was a  
15 sacrifice zone when it came to planning or, as they  
16 say, siting negative amenities.

17 We want to say that positive amenities  
18 could be things like golf courses, nature preserves,  
19 things that can actually even augment the value of  
20 your home. Negative amenities, such as sewage  
21 treatment plants, burn plants, nuclear power plants,  
22 can actually depress value, and actually, as I say,  
23 increase burdens above and beyond just the siting of  
24 that particular facility, but actually bear, as they  
25 say, particular harm to the residents

1 disproportionately.

2           So what they did was an analysis that  
3 looked at these permitting issues and siting all  
4 around the country, controlling for race, income,  
5 class, socioeconomic status.

6           What they found that the overriding thing,  
7 the heavy burden was borne by principally poor,  
8 disempowered people. By disempowered you look at  
9 voting registration, how their voting turnout,  
10 etcetera, so you can see what their connections with  
11 regards to political influence and access, as I say,  
12 that has input and influence on the decision-making.

13           So by disempowered, it's just not only  
14 because of money, but also political  
15 disenfranchisement, etcetera. They found that this  
16 was a very, very significant driver in the siting of  
17 facilities.

18           Then when you control for race, all things  
19 being equal, they found that then even if you're rich,  
20 middle class or poor minority, you would still fare  
21 even worse than even poor whites, when the chips were  
22 down. So there was even less than equal amongst the  
23 equals.

24           But overall, the term "environmental  
25 justice" includes not just race; it has unfortunately,

1 because of lobbying efforts and the pushback from  
2 industry, and again, when you're starting to define  
3 these definitions and terms, everybody comes to the  
4 plate. That's one of the things that President  
5 Clinton did before issuing the Executive Order, just  
6 trying to bring everybody together.

7 But at the same token, at the Point where  
8 you're defining rules and procedures, what are the  
9 best tools and mechanisms, they got away from some of  
10 the principle drivers of environmental injustice,  
11 which is the regulatory framework that decides where  
12 things go, to now just reducing it to sort of like  
13 affirmative action.

14 What environmental justice, it is not  
15 environmental affirmative action. It is a gross  
16 mistake to rely exclusively upon race as a determinant  
17 or driver of an environmental justice. It's not about  
18 poor black people; it can be middle class black  
19 people. It can be affluent black people.

20 But also it can be for white people. Some  
21 of the biggest environmental justice cases that I had  
22 work on are rural Appalachian West Virginia, with  
23 regards to mountaintop removal. I submit to you they  
24 are dirt poor, struggling, and it's because of  
25 economic hardship and necessity that they're locked

1 into a particular geographical area, and they are  
2 white, and they are also an environmental justice  
3 community.

4 In fact, I helped organize the Sierra Club  
5 Environmental Justice Programs, and by the way I'm on  
6 the national board of directors for the Sierra Club.  
7 I'm one of the 15 members of the National Sierra Club  
8 that actually are the legal body that is the Sierra  
9 Club. I mean we naturally are a million member  
10 organization, but as one of the 15, set the policies  
11 so that making sure the outreach to poor, even poor  
12 white areas, are also included.

13 So it is not just race, and I say that to  
14 say this, is that you have to -- if you can look at  
15 that map, it's very telling. I mean you can see  
16 clearly the dark shade is, I guess I'm assuming it's  
17 shaded by race, or as they define, if you define the  
18 EJ area narrowly, and if you throw in an income  
19 dimension, that still doesn't tell the story.

20 You have to understand the story of  
21 Peekskill and Haverstraw. These were the, as I said,  
22 the safe places where poor low income folks could  
23 settle throughout the history of Westchester County.  
24 Westchester County is perhaps one of the wealthiest  
25 counties in the country, and yet you have these

1 interesting little pockets, and these patterns  
2 actually.

3 As I say, it certainly goes back to some  
4 of the early brick manufacturing, early iron  
5 manufacturing and the like. In the past, General  
6 Motors, the Ford plant in Rahway. But Peekskill is  
7 pretty much a very blue collar town, and because it's  
8 blue collar, it did not have the weight and influence.

9 So as a consequence, it became what I call  
10 an environmental sacrifice zone. By that, you have  
11 the concentration of the county's incinerator, waste  
12 dumping, ash pits. The battle that we had to fight  
13 and I helped organize the community's environmental  
14 justice group called Citizens for Equal Environmental  
15 Protection, where they were going to expand a sewer  
16 trunk line through the city's unfiltered watershed.

17 In fact, they have actually high quality  
18 water, but because another town that's very affluent,  
19 Yorktown, wanted to build more ratables, which is real  
20 estate, high value, high end, they had no way or where  
21 to dump the sewage. So they could have either spent  
22 more money and incurred the tax increase to expand  
23 their sewage treatment plant in that town, or they  
24 could dump it in the Hudson River.

25 The only pathway to do that, and if you --

1 what's missing from this speech here, which is another  
2 dimension, is topography. You would notice that the  
3 Annsville Valley in that area is where the hollow, the  
4 Peekskill Hollow, is where the main water course and  
5 also the potable water supply for the town flows.

6 So that was also the path of least  
7 resistance by which that wealthy town could take its  
8 sewage and dump it into the Hudson. So then Peekskill  
9 would have to then become a regional sewage dumping  
10 facility. So it is because the community was  
11 powerless that when they decided at the county level  
12 to have a regional sewage entity, to set up and make  
13 this plant a foregone conclusion, the residents of  
14 Peekskill were not really brought in at the table.

15 We had to go in and organize the  
16 community, and as a true environmental justice  
17 community, it was not -- just not black, white,  
18 Hispanic, a range of groups, and they were scrambling,  
19 saying you know, we don't even understand the  
20 regulatory routine and process by which we can get  
21 onto the on ramp and have a say.

22 Is it our politicians? Is it our mayor?  
23 They had to really be educated, and this is what  
24 environmental justice does. Environmental justice,  
25 you have to understand what the injustice is. It

1 begins one bad zoning decision or siting decision at  
2 a time.

3 And those communities that do not have the  
4 means, income and resources to fight these zoning  
5 decisions, usually become the sinkholes or the  
6 sacrifice zones by which these decisions end up being  
7 sited.

8 So one of the things I had to do is  
9 education them in the government planning process, the  
10 zoning process, and actually teach them to become  
11 their own EPA, teach them to get hospital and other  
12 experts, to get nurses and other experts, but more  
13 importantly identify their community.

14 So poverty, class and socioeconomic  
15 status, as I say, culture, custom and heritage, a lot  
16 of these things go into the dynamic of making an  
17 environmental justice community. So when one only  
18 narrows it by saying "black and poor," you truly, as  
19 they say, miss the phenomenon.

20 In fact, I go back, I think it's -- is it  
21 Clearwater 51, in which they had the NRC's report?  
22 One of the things that they said in doing analysis,  
23 you know, the failure to account for environmental  
24 justice is with the lifting of the rock, and looking  
25 under the rock.

1 I'd go even further, even defining what  
2 the rock is. I mean if you don't even know what the  
3 rock is, its shape, nature and dimensions, let alone  
4 to even lift up and begin to do more empirical  
5 research and analysis, you're totally going to miss  
6 the picture.

7 That is the case in this instant. Here,  
8 they said that it's been assumed that the 40 years of  
9 current operations is okay in the norm. But it  
10 doesn't take into account the culture, custom and  
11 heritage of that poor community, and its orientation,  
12 its land use, its living and travel patterns.

13 So that Peekskill as a town, as a city, is  
14 an environmental justice community, because it is  
15 historically blue collar, low income, disconnected,  
16 disarticulated from the rest of the county. Then one  
17 needs to look at the totality of that community, and  
18 then actually start to substratify by special needs  
19 populations, institutionalized populations, whether  
20 it's imprisoned, nursing homes, schools and housing  
21 authorities.

22 I list those things particularly, because  
23 those are places in which the people who are within  
24 them have limited control over their ability to move  
25 and move around. Schools, kids just cannot run and



1 run away from the school. They have to form up and do  
2 whatever. They have to rely upon their teachers,  
3 hopefully to get them to safety.

4 Same thing with hospitals and  
5 institutionalized residents, senior citizens' housing,  
6 and also, as I say, housing authority housing. Some  
7 of these special needs housing are in parts of the  
8 city because of zoning, because they don't want to put  
9 them in other parts.

10 So that within the city of the geography  
11 for their access to roads and transportation, is even  
12 further impaired. So when one only considers the  
13 census variable for race, you totally miss, I would  
14 say, 99 percent of the issue. Environmental justice,  
15 as an expert on environmental justice, as one of those  
16 who shaped the terms and definitions of environmental  
17 justice, you miss a huge picture.

18 JUDGE McDADE: Okay. You're familiar with  
19 the Town of Peekskill?

20 MR. MAIR: Yes.

21 JUDGE McDADE: You grew up there?

22 MR. MAIR: Yes.

23 JUDGE McDADE: Okay. Are there certain  
24 characteristics of the Town of Peekskill that you  
25 would like to emphasize for us, that are not

1 considered in an environmental impact statement, not  
2 considered in an environmental justice review, that  
3 you think are particularly relevant in the context of  
4 the licensing or relicensing of the Indian Point  
5 facility?

6 First of all, just put on the record, how  
7 far away from Indian Point is Peekskill?

8 MR. MAIR: I would say, if you're dealing  
9 with South Peekskill, you're probably about a mile and  
10 a half, you know. If you're going lower Washington  
11 Street, that lower South Street area, a mile and a  
12 half, two miles. So that's a reasonable distance,  
13 that little are going down to Indian Point. So you've  
14 got Charles Point and Indian Point, yes.

15 JUDGE McDADE: So depending on your  
16 perspective, either Peekskill is in Indian Point's  
17 backyard or Indian Point is in Peekskill's backyard?

18 MR. MAIR: Well, it's actually not  
19 backyard, because Peekskill is a city on the Hudson.  
20 It's in its front yard. It is, think of it as the  
21 front yard, the lawn. It's that big tree on your  
22 front lawn.

23 So we can be that specific, because it's  
24 a noticeable landmark. If you grew up in Peekskill,  
25 you know, you can see the tower, depending upon where

1 you lived in the City of Peekskill or the domes.

2 So it is the tree in your front lawn. So  
3 it's more than just the backyard. It's your front  
4 yard. It's what people see when they come into the  
5 community. So let's talk about routes and  
6 transportation, and again, we'll just be simple here  
7 for conversation's sake, using 100 percent north,  
8 south, east and west, say giving all the weight of 25  
9 percent.

10 Obviously, if there's an incident, and if  
11 the prevailing radius, say, is within 10 to 50 miles,  
12 the southern route is really not an option, because  
13 then you're heading towards New York City, and you're  
14 also driving through and heading through other  
15 populations that also face the same problem as  
16 Peekskill.

17 A lot of poor people say if you get to the  
18 Bronx, that maybe themselves are trying to get out.  
19 But you're heading into denser traffic, and you would  
20 basically run into gridlock. So that area is pretty  
21 much forestalled, not to mention it's one of the  
22 better routes to get out of the city, Route 9 heading  
23 south, but it's also the route that heads in.

24 If there's a route going south, it's  
25 basically heading into, you know, going south and

1 you're only able to get as far as Manhattan, and you  
2 then have to go either toward Long Island, or try to  
3 still cross George Washington Bridge to get to New  
4 Jersey. So you're wiped out with regards to options  
5 here.

6 Let's look at trying to head west. If you  
7 look at that map, again of the Clearwater exhibit of  
8 Peekskill, the radius map please. If you head due  
9 west, there's water. So the western direction is no  
10 option. If you want to head north, if that was a  
11 topographical relief mountain, you would see Route 9,  
12 as it twists around, as you see Camp Smith, Anthony's  
13 Nose.

14 It basically becomes what I call almost a  
15 cow path. So it's a two-lane road, and it's -- when  
16 I say "two lanes," I would honestly suggest that this  
17 group of tables right here, from the edge of this  
18 table here, just about to the middle of that water  
19 cooler there, is you know, your north and south.

20 JUDGE McDADE: I'm sorry, sir. From the  
21 table --

22 MR. MAIR: From this table right here.  
23 This table right here. Could you raise your hand sir,  
24 and lady, could you raise your hand over there please?  
25 Could you both raise your hands please? That's the

1 width of the path, the Route 9 that's two lanes, and  
2 it twists around Anthony's Nose, getting to Bear  
3 Mountain Bridge.

4 JUDGE McDADE: And if you can, just so  
5 we're going to have it clear for the record, you're  
6 talking about the table where the NRC staff is  
7 sitting, to the table where the State of New York is  
8 sitting?

9 MR. MAIR: Yes.

10 JUDGE McDADE: That we will take judicial  
11 notice, that since we arranged for, but those tables  
12 are eight feet long. So we are talking a distance of  
13 approximately 10, 20 feet?

14 MR. MAIR: Roughly 20 to 21 feet, you  
15 know, of basically heading your north-south, and it's  
16 21 feet almost on switchback and hairpin turns. So  
17 can you imagine an evacuation, you know, of a town  
18 heading on that type of route. That would be --

19 JUDGE WARDWELL: Excuse me, if I might  
20 interrupt. Just quickly for clarification, are you  
21 referring to Route 9 or Route 2026?

22 MR. MAIR: Route 9. Basically, 2026. I'm  
23 sorry.

24 JUDGE WARDWELL: Okay.

25 MR. MAIR: Route 2026.

1 JUDGE WARDWELL: Thank you.

2 MR. MAIR: And that goes around to -- and  
3 that's your main route going to Bear Mountain Bridge,  
4 again trying to get to go west, and that is, as they  
5 say, a very common traveled route. I can tell you,  
6 with a lot of the traffic from that area, it would be  
7 almost a parking lot should there be an emergency  
8 incident.

9 It's sort of like Katrina, where people,  
10 if there's a threat, if there's a warning, because  
11 usually something happens and warnings or notices go  
12 out or people hear something or they pick up on the  
13 news. As people would pull out, that would become a  
14 parking lot in seconds.

15 The other viable route out is Route 202  
16 heading -- 2026, which heads towards Mohegan Lake, and  
17 that's heading east to Yorktown, and that's -- those  
18 routes are four lanes. They're probably a lot wider  
19 than the northern route of Peekskill, and you know,  
20 again, you're heading through huge suburban tracts and  
21 huge suburban areas. If you had the population, the  
22 census population, you could see quickly how those  
23 areas would fill up with traffic.

24 In fact, one of the reasons why they just  
25 recently widened the Taconic Parkway, that area, so I

1 believe now it's almost eight lanes, was because of  
2 heavy traffic congestion. That's what the suburban  
3 commute right there. So can you imagine an emergency  
4 situation, where you're trying to evacuate a  
5 significant portion of the population of the city?

6 That's assuming, you know, the folks that  
7 had the means to quickly disperse, say just like in  
8 the case of Hurricane Katrina, those who had the means  
9 of getting out right away.

10 JUDGE McDADE: Is there anything about the  
11 patterns of automobile ownership or public  
12 transportation in Peekskill that would affect the  
13 environmental justice population?

14 MR. MAIR: Being a predominantly working  
15 class community, it is heavily public transportation-  
16 dependent. Unfortunately, most of the public  
17 transportation infrastructure is designed to go from  
18 Peekskill south, because a lot of people on average  
19 commute to White Plains or New York City.

20 So the best public transportation and the  
21 main highway, which is basically taking the labor of  
22 Peekskill, which historically was where the labor  
23 population was, south to work. So you would basically  
24 that the public transportation, as it is designed, it  
25 is designed to actually take them into harm's way,

1 rather than away from harm's way.

2 So they're very public transportation  
3 dependent, number one. Number two, of those working  
4 class folks that usually have a car, it's about maybe,  
5 you know, one car, and usually the condition of that  
6 car is often in question. I mean these are folks who,  
7 in these tough times with expensive gas, they try to  
8 make it stretch out as long as possible.

9 So you're assuming that in most of their  
10 cars are commuting, I would say, no more than an hour  
11 to and from a job, because of the limited viability of  
12 that vehicle. So if you imagine those who even have  
13 a car, but the car is of inferior quality, the  
14 probability of that thing traveling a distance and  
15 then breaking down on the road would only present a  
16 hazard to people who are trying to get out, but also  
17 the family, because again that vehicle is pushed  
18 beyond its limits.

19 So of those work vehicles, they're not,  
20 you know, current model vehicles. Many of them are  
21 vehicles of necessity, and I would often submit in  
22 many cases, I was in a household of nine.

23 We had one car. You could not get all of  
24 us in one car, and so if you look at today's late  
25 model cars, you know, at best if you do the college



1 kid in the telephone booth, you'd probably get five or  
2 six people into a car. But what happens if the  
3 family's larger than five or six?

4 JUDGE McDADE: Having focused on the  
5 impact, are there any potential mitigating actions  
6 that you would what to focus us on?

7 MR. MAIR: Absolutely. I think that, you  
8 know, one of the realistic and the realities, and I  
9 guess when we're talking about public transportation,  
10 you know, one of the important mitigations, again if  
11 they were lifting up the rock, that they could  
12 proactively do. I think one of the most significant  
13 things they could do is invest in, as they say, a  
14 supply of public transport and emergency transport  
15 that should be available, you know, for this city  
16 population.

17 First and foremost, the city's bearing the  
18 burden of possibly having this plant continue on. So  
19 one amenity that this entity could contribute is  
20 looking at the size of the school populations, the  
21 size of its institutionalized population, the public  
22 housing authorities, and they should either have ready  
23 or for drill purposes, you know, what does it take to  
24 get ten buses to the various locations, you know, to  
25 move large segments of the population, and more

1       importantly having not only pickup points, but an  
2       actual clear route that the community is notified  
3       about.

4                   When we talk about shelter in place, when  
5       I was a kid at Uriah Hill and Drum Hill in the City of  
6       Peekskill, when we had the drills, because Indian  
7       Point was a fact of our lives, you know, granted, we  
8       did the duck and cover and you were in the hallway.  
9       That's assuming a nuclear device and the building  
10      collapsing.

11                   In this case, it would be an invisible  
12      threat. But one of the things that each building at  
13      that time, before a lot of the urban renewal and then  
14      the current new building frenzy, Peekskill went  
15      through huge destruction and demolition of what I call  
16      old civilian defense infrastructure.

17                   So even if they did nothing, and if you  
18      had the old civilian defense infrastructure, that  
19      could have been recycled or improved shelter in place.  
20      And what about civilian defense, many of you may be  
21      aware of, what do you need? I think the question was  
22      asked about the prisons, you know.

23                   The issue is having places that have large  
24      areas that have proper ventilation and treatment,  
25      that's designed in case of a nuclear disaster event.

1 This is nothing new and unheard-of. We actually did  
2 this. We actually prepared at one time for a nuclear  
3 disaster, and this is basically dusting off books and  
4 things that we know.

5 So we need to have these civilian type of  
6 defense infrastructure distributed through the city.  
7 So this way, if people are poor and they're going to  
8 be sheltered in place, then reasonable accommodations  
9 should be made, and reasonable built-in infrastructure  
10 should be made, to basically make that happen and  
11 viable, and stockpile, like they had did with civilian  
12 defense, meaning that they water, emergency supplies,  
13 flashlights, all those things in the case of a  
14 disaster.

15 So that if people cannot get out, they  
16 don't have to worry about the air circulation and all  
17 the other things, that you could actually minimize the  
18 hazards from getting in. So it's kind of far-fetched  
19 to say that well, things are, you know, nothing's  
20 disastrous did happen.

21 We can debate that, but at the end of the  
22 day, if we're looking forward, and if we're looking  
23 forward with the 20-20 hindsight of Fukushima and  
24 Hurricane Katrina, and realize that crises do happen,  
25 things can fail, the best laid plans of mice and men

1 and experts can break down, the question at the end of  
2 the day, the poor are the ones that are left behind.

3 Do we have the adequate capacity and  
4 infrastructure in place to at least protect human  
5 health? One of the greatest oversights, again not  
6 lifting up the rock, is even looking at say look, we  
7 have to shelter in place, okay, then do we have the  
8 capacity for 20,000 people to be sheltered in place  
9 within this city?

10 And I would say that there perhaps are a  
11 couple of buildings still standing that have old CD  
12 infrastructure, that's civil defense infrastructure,  
13 but all the new construction doesn't. The answer is  
14 is that, you know, this is more than just a checkbox  
15 on a sheet of paper, and a statement, and putting up  
16 a sign, a metal sign saying "stand here."

17 This is taking aggressive, affirmative  
18 action of making sure these things are in place. It  
19 think that if you're going to consider the extension  
20 which is going forward, at least at a minimum minimize  
21 the harm. The most civil thing to do, the most humane  
22 thing to do, is that if you're asking people to  
23 survive in the event of a nuclear disaster, one should  
24 make sure that that civil defense type of, as a  
25 shelter in place, is fit for human habitation, and has

1 the resources and stockpiles should there be a crisis  
2 that requires those facilities to be used.

3 So saying it and having a checkbox means  
4 absolutely nothing, and that is the core of  
5 environmental injustice, because the bare minimum  
6 thought goes into really what happens to these  
7 populations. Those who will have the means and the  
8 ability to survive, will do so. Those who are poor,  
9 black, white, blue collar, with limited means and  
10 access, will be stuck.

11 This community was built in the  
12 Depression. It's geologically and geographically  
13 situated so that it is in the worse place, and because  
14 it is a sacrifice zone, we're asking it to bear an  
15 additional burden, on top of being the center for  
16 waste, sewage for the entire county to, as they say,  
17 to carry on this additional burden.

18 So if we're going to do it, there are  
19 things that you can proactively do. They're not the  
20 best solutions, but they are things that are humane  
21 and the right thing and just thing to do.

22 JUDGE McDADE: Ms. Guardado, you are also  
23 a resident of Peekskill; correct?

24 [TRANSLATING QUESTION AND ANSWER.]

25 MS. GUARDADO: Correct.

1 JUDGE McDADE: How long have you resided  
2 there?

3 [TRANSLATING QUESTION AND ANSWER.]

4 MS. GUARDADO: It's going to be five  
5 years. It's been four years and ten months.

6 JUDGE McDADE: Okay. English is not your  
7 first language, is it?

8 [TRANSLATING QUESTION AND ANSWER.]

9 MS. GUARDADO: Correct, it's not.

10 JUDGE McDADE: What is your first  
11 language?

12 [TRANSLATING QUESTION AND ANSWER.]

13 MS. GUARDADO: It's Spanish.

14 JUDGE McDADE: And you came to the United  
15 States from El Salvador?

16 MS. GUARDADO: Yes, correct.

17 JUDGE McDADE: And you came here as an  
18 adult?

19 [TRANSLATING QUESTION AND ANSWER.]

20 MS. GUARDADO: Yes.

21 JUDGE McDADE: Okay. Since you've been  
22 living in Peekskill, you've been involved with the  
23 Hispanic community in Peekskill?

24 [TRANSLATING QUESTION AND ANSWER.]

25 MS. GUARDADO: Correct.

1 JUDGE McDADE: Are you in a position to  
2 explain to us the general level of English fluency of  
3 that community?

4 [TRANSLATING QUESTION AND ANSWER.]

5 MS. GUARDADO: Yes, it is Spanish.

6 (Laughter.)

7 JUDGE McDADE: Would you please do so?  
8 First of all, let me ask, you're testifying here  
9 through an interpreter today; correct?

10 [TRANSLATING QUESTION AND ANSWER.]

11 MS. GUARDADO: Yes.

12 JUDGE McDADE: And you requested an  
13 interpreter because you have reservations about your  
14 fluency in English?

15 [TRANSLATING QUESTION AND ANSWER.]

16 MS. GUARDADO: That's correct.

17 JUDGE McDADE: And you wanted to make sure  
18 that what you were saying is what -- and what we hear  
19 is what you are thinking and what you believe?

20 [TRANSLATING QUESTION AND ANSWER.]

21 MS. GUARDADO: Yes, correct.

22 JUDGE McDADE: Is your level of fluency  
23 average within the Hispanic community of Peekskill,  
24 above average or below average?

25 [TRANSLATING QUESTION AND ANSWER.]

1 MS. GUARDADO: I didn't understand the  
2 question.

3 JUDGE McDADE: Is your level of fluency  
4 typical within the Hispanic community of Peekskill?

5 [TRANSLATING QUESTION AND ANSWER.]

6 MS. GUARDADO: Average. I'm going to  
7 explain a bit. Since I came from my country El  
8 Salvador approximately five years ago, I have not  
9 stopped to learn English, because I believe it is a  
10 big necessity in this country.

11 During that whole time, I have found that  
12 within the community where I live in Peekskill, there  
13 is a great Hispanic population in this community.

14 JUDGE McDADE: What percentage of  
15 Peekskill would you say is Hispanic?

16 [TRANSLATING QUESTION AND ANSWER.]

17 MS. GUARDADO: I don't have an exact  
18 number, only what I observe. When people come to the  
19 center to consult, I realize that there are many more  
20 people that are Spanish, Hispanic.

21 When I go to the meetings with my  
22 daughter, of my daughter in school, I notice that  
23 there are -- there's a lack of people that are  
24 Spanish-speaking, because they do not understand the  
25 English. Those are some of the reasons.



1 JUDGE McDADE: Okay, and one of the  
2 things, we have the translator here. You can't run on  
3 too long before you take a breath.

4 [TRANSLATING QUESTION.]

5 JUDGE McDADE: Because we need to allow  
6 the translator to catch up with you.

7 [TRANSLATING QUESTION AND ANSWER.]

8 MS. GUARDADO: Okay, that's correct.

9 JUDGE McDADE: Is fluency in English an  
10 issue for a significant portion of the Hispanic  
11 population of Peekskill?

12 [TRANSLATING QUESTION AND ANSWER.]

13 MS. GUARDADO: Can you repeat that?

14 JUDGE McDADE: Is a lack of fluency in  
15 English a problem for a significant portion of the  
16 Hispanic population of Peekskill?

17 [TRANSLATING QUESTION AND ANSWER.]

18 MS. GUARDADO: As far as I'm concerned,  
19 there's a big impact, in that the people do not  
20 understand English the way that I do.

21 JUDGE McDADE: Okay, and can you describe  
22 the difficulties that that lack of English fluency  
23 would have in the event of an accident at Indian  
24 Point?

25 [TRANSLATING QUESTION AND ANSWER.]

1 MS. GUARDADO: Yes. First, I believe that  
2 if there were an impact like that, like the radiation,  
3 nuclear radiation, I am thinking and seeing that it  
4 would be very difficult, because at this moment, at  
5 this moment they would be giving the whole orientation  
6 in the native language, which is English.

7 And the people, even though we know a  
8 little bit of English, at that moment, because of our  
9 English, we don't get that entire attention and we  
10 become out of control. I believe that the officials  
11 that would be there at that time giving all the  
12 instructions, they are giving them in the language, in  
13 English.

14 Most of the Hispanic population, who are  
15 a very big population, in the area of Peekskill,  
16 that's what I'm talking about because that's where I  
17 live, it would be a great impact. I put myself in my  
18 place, as a mother, first of all. I go crazy thinking  
19 that something like this can happen.

20 Now my daughter at that moment would be  
21 perhaps in school. Myself, as a person that's working  
22 as well, with elderly people, people that are  
23 disabled, with a level of disability, that they can't  
24 move freely. To me, I would feel bad. In reality, I  
25 don't even know how to describe that Point.

1 I've been working and I've been very  
2 involved with the Latin Committee. Based on that  
3 experience that I have had, since I came to this  
4 country, I am giving now my testimony, because I  
5 always like to be involved in the services of the  
6 community, and mainly because I've been working in the  
7 area of health.

8 My concern is also what can happen to us,  
9 the people, and I think a lot about the people of high  
10 risk, that are the elderly and the children.

11 JUDGE McDADE: Okay. Since you've been in  
12 Peekskill, you've been very involved with the Hispanic  
13 community and community organizations, have you not?

14 [TRANSLATING QUESTION AND ANSWER.]

15 MS. GUARDADO: Yes, that's correct.

16 JUDGE McDADE: That in the event more than  
17 five percent of the population speaks a language other  
18 than English, it is necessary that emergency plans be  
19 published in that language?

20 [TRANSLATING QUESTION AND ANSWER.]

21 MS. GUARDADO: Yes.

22 JUDGE McDADE: And Westchester County has  
23 on its website in Spanish information about its  
24 emergency plans.

25 [TRANSLATING QUESTION AND ANSWER.]

1 MS. GUARDADO: Yes.

2 JUDGE McDADE: Okay. Even though you have  
3 been very active in the Hispanic community and  
4 community organizations in Peekskill, prior to your  
5 involvement with this proceeding, were you aware that  
6 there were Spanish language sources of information  
7 with regard to emergency planning?

8 [TRANSLATING QUESTION AND ANSWER.]

9 MS. GUARDADO: I want to explain  
10 something. Yes, I've been very involved in the  
11 community since the beginning. I have worked with the  
12 Latin community of Peekskill, my intention has been  
13 after knowing. When I took my daughter initially to  
14 school, I got a notification saying that I should sign  
15 a paper so she could get -- so they could give her  
16 doses of potassium iodide.

17 So then I started to feel uneasy, and I  
18 wanted to find out more about the nuclear plant. I  
19 started to look and to read that sheet, and I started  
20 to investigate and I became uneasy, that at any moment  
21 a situation like this could occur. So the document,  
22 I didn't recognize any of the documents. I did not  
23 find the documents in Spanish.

24 Up until now that were doing this process,  
25 I realized that there isn't such a document. But in

1 my experience with the people that I have worked with  
2 in the community, no one has told me that there is a  
3 document written in Spanish.

4 That is the worry for us, because we did  
5 not know that an emergency plan existed, in order to  
6 evacuate our Hispanic community in Peekskill.

7 JUDGE McDADE: Okay. Is there anything  
8 else that you would like to draw our attention to,  
9 that you feel demonstrates that the Hispanic community  
10 would be disproportionately impacted by a release of  
11 radionuclides from Indian Point?

12 [TRANSLATING QUESTION AND ANSWER.]

13 MS. GUARDADO: I don't have the sample.  
14 I don't have. I don't have a sample.

15 JUDGE McDADE: Okay, thank you. It's now  
16 just about 5:00 p.m. I would suggest we take a five  
17 minute recess, well, a ten minute recess, and we come  
18 back then at 5:10. We are in recess. Thank you.

19 (Whereupon, a short recess was taken.)

20 JUDGE McDADE: Okay. I think we have a  
21 critical mass and we're past the time of the recess.  
22 The hearing will come to order.

23 Mr. Simms, where do you reside?

24 MR. WEBSTER: Judge, if you could raise  
25 your voice for Mr. Simms. He is not -- he hears very

1 well but he does require a slightly high volume.

2 JUDGE McDADE: Okay. Where do you reside,  
3 Mr. Simms?

4 MR. SIMMS: I reside in Cortlandt, in the  
5 Town of Cortlandt.

6 JUDGE McDADE: Okay. And you are currently  
7 a resident at a nursing home?

8 MR. SIMMS: No, it's an assisted living  
9 residence.

10 JUDGE McDADE: Okay. And how long have you  
11 been a resident there?

12 MR. SIMMS: I've been there for three  
13 years.

14 JUDGE McDADE: Okay. And in your direct  
15 testimony you talked about some of the circumstances  
16 that would be applicable to people in assisted living  
17 and in nursing homes in the event of a disaster in the  
18 area. Correct?

19 MR. SIMMS: Yes, sir.

20 JUDGE McDADE: Okay. Can you -- and also  
21 that although not in the facility where you reside but  
22 in many similar facilities the population are Medicaid  
23 or low-income, but the difficulties would be spread  
24 across whether or not it was a group of affluent or a  
25 group of non-affluent people.

1 MR. SIMMS: Well, I couldn't respond in  
2 that sense because where I am we're not to have that  
3 particular problem. Okay? Reliant on Medicaid. On the  
4 other hand, we have problems unique to the elderly.

5 JUDGE McDADE: And could you highlight some  
6 of those for us?

7 MR. SIMMS: Yes, sir. As a matter of being  
8 when I say elderly, there are a number of degrees in  
9 which we find ourselves failing. Now, I live with  
10 approximately 90 other people and some of them have  
11 difficulty seeing more so than myself, some have  
12 difficulty hearing, and some have difficulty  
13 comprehending anything. Now, this is an assisted  
14 living home and we have aides employed by the home,  
15 and we also have private aides brought in by the  
16 families of the residents.

17 Unfortunately, this is not going to be of  
18 much help to us in the event of an evacuation because  
19 to my mind, or to my knowledge I know of no way that  
20 they could evacuate us. We have people let's say who  
21 are considered ambulatory, but then you have to  
22 include everybody who requires a walker. Now, for  
23 those of us who don't use walkers we comprise maybe 10  
24 percent of the population. The rest are confined to  
25 walkers and wheelchairs. What that means, of course,

1 is that there's no way to simply pull up a bus, or  
2 two, or three and say load up because you can't load  
3 up wheelchairs, and people are confined to them.

4 The other thing that's even more important  
5 is that a number, in fact I would say on the order of  
6 40 to 50 percent of the residents require medication.  
7 With medication, it's distributed by the aides and by  
8 the nursing staff. Some of us are self-medicated, but  
9 some of us can't be self-medicated because sometimes  
10 the medication involves narcotics and other controlled  
11 substances so, therefore, it is kept under lock and  
12 key and distributed only when needed. But we have  
13 lines when -- every day certain residents have to line  
14 up to get their medication. If we evacuate there's no  
15 way for them to get their medication. Now, I can take  
16 mine. I'm self-medicated. I can grab my pills, throw  
17 them in a bag and say let's go, but I'm one of the few  
18 who can do that.

19 Unfortunately, my building is  
20 representative of a much larger area. The name of the  
21 building I'm in is Springvale Inn, and Springvale also  
22 encompasses a larger area where there are a number of  
23 apartments that are restricted. Well, I shouldn't say  
24 restricted because I don't run the place, but there's  
25 a big sign out front indicating that they have



1 vacancies and the age is 55 and up. Now, this is  
2 really a senior citizens area. And you can go at least  
3 a mile and a half down the road with buildings and  
4 apartments on each side that are housing people 55 and  
5 up.

6 All of us to a certain extent are limited  
7 completely by the topography of the area. There's only  
8 one road in and one road out really, so should  
9 something happen, I don't know how transportation  
10 could get to the people down at the bottom of the  
11 hill. I'm at the top of the hill, so I can walk out  
12 and be on Route 9. And, hopefully, somebody would pick  
13 me up. But I can walk a limited distance, but there's  
14 too many people where I am who can't. As I say, what's  
15 more they can't take their medication with them.

16 Now, medication is applied all day long,  
17 and for that matter there are certain of the residents  
18 who have medication all night long. In a sense you  
19 might say they should be a nursing home rather than an  
20 assisted living facility. That may be, but this is  
21 where we are.

22 JUDGE McDADE: Mr. Simms, we heard earlier  
23 about certain issues for medical care, medical  
24 treatment during the course of an emergency where  
25 perhaps the staff who would ordinarily provide medical

1 care would not be available because they would have  
2 exited the area. In the facilities that you described  
3 would they be able to function as a shelter in place  
4 without impacting the well being of the residents  
5 without the presence of at least the vast majority of  
6 the staff?

7 MR. SIMMS: I fail to see how primarily  
8 because even the staff that's there is limited with  
9 respect to distributing medications. For example, we  
10 have nurses, practical nurses, nurses aides, and  
11 they're the ones who distribute the medications. Now,  
12 the other staff comprises the kitchen, comprises  
13 housekeeping, maintenance. And the point is I'm not  
14 sure how many of any of the staff would be available  
15 in the event of an emergency since the staff also has  
16 their own families and they don't live there. They  
17 come in in the morning and they leave in the evening,  
18 and we have a night staff, and they come in when their  
19 hours start. It's not the case of where the staff is  
20 on the premises forever.

21 JUDGE McDADE: Okay. Mr. Simms, is there  
22 anything else about the specific impact that the  
23 elderly would encounter that the rest of the  
24 population would not in the event of an event at  
25 Indian Point that you would like to bring to our

1 attention?

2 MR. SIMMS: Well, it's true we're not what  
3 you would call low-income. However, we have no private  
4 means of transportation. A couple of us had cars when  
5 we came in but these cars now seem to have been given  
6 away or sold because we have not been able to really  
7 use them. The people who brought them feel unsure of  
8 themselves as they drive so they would rather not.

9 Now, it's true the facility provides  
10 transportation for such necessities as doctor's  
11 visits, et cetera, that kind of thing, so there's no  
12 need that we have to have a car. Such a car we figure  
13 might be useful in the event of an evacuation, but  
14 that would not help with respect to the medication  
15 that needs to be -- and I don't know of anyone there  
16 who is not on some kind of medication.

17 JUDGE McDADE: Okay. Thank you, sir. Dr.  
18 Kanter, I don't want to go over the same ground we  
19 went over with Dr. Larsen but there are some things  
20 that you referred us to that I'd like to discuss.

21 You talked about surge capacity. What did  
22 you mean by that?

23 DR. KANTER: Yes. Excuse me, Your Honor.  
24 Thank you. So, surge capacity is the amount of  
25 available resources and beds within the health care

1 system that is available in the time of crisis. So,  
2 essentially, my concern that was raised in the report  
3 was that the health care system right now, as most  
4 probably are aware, is very tightly controlled, and  
5 that in trying to reduce costs and increase  
6 efficiencies the system is being run at near maximum  
7 capacity. So, the surge capacity is essentially the  
8 ability of a system that's already -- in this case  
9 already running at near maximum capacity to absorb  
10 additional patients or people who need to be cared  
11 for.

12 JUDGE McDADE: And how would this impact  
13 particularly low-income or minority people more than  
14 the general population in the event of an incident at  
15 Indian Point?

16 DR. KANTER: Well, what was raised earlier  
17 is that these people who are in these EJ communities  
18 are generally people who have higher health care  
19 burdens and, therefore, are likely to be in settings  
20 that require, as we just heard, a high level of care.

21 In the case of an accident where those  
22 patients would have to be relocated, that they would  
23 likely be very severely affected by not only the move  
24 and the time that they were not being cared for, but  
25 also whether the available spaces were -- or spaces

1 were available for them to go to, for them to continue  
2 to receive care.

3 So, the analysis that we put into the  
4 testimony demonstrated was that there is just not  
5 enough capacity within the current system. And,  
6 therefore, those patients who are most at need, most  
7 dependent upon medical care would suffer the most.

8 JUDGE McDADE: Okay. In the context of the  
9 viability of shelter in place, and particularly  
10 shelter in place for low-income and minority  
11 individuals you discussed groundshine. How in your  
12 view would that adversely affect minorities and low-  
13 income disproportionately to the general population?

14 DR. KANTER: The concern that I've had so  
15 far listening to the testimony has been the appearance  
16 that all we have to worry about is the plume going by,  
17 and once the plume has gone by that everything would  
18 be okay, and that all the radiation dose exposures  
19 would be terminated. People could just go back to  
20 doing whatever they were doing. And I think what we've  
21 seen certainly from Fukushima and Chernobyl is that  
22 these things do not go away and, therefore, it's not  
23 just a matter of the acute exposures perhaps to  
24 Iodine-131 in the plume, but that cesium and these  
25 other radioisotopes get deposited in the ground, in

1 the groundwater, in the food supply and, therefore,  
2 you don't ultimately remove the need for evacuation.  
3 So, by sheltering in place not only are you  
4 potentially being exposed to these other forms of  
5 contamination, but that you still have not removed the  
6 need to take those people out of that contaminated  
7 environment. And during that whole process, as  
8 mentioned, they are likely to receive greater  
9 exposure.

10 And I'd like to maybe clarify one thing  
11 that the -- that was stated by I think Entergy  
12 witnesses earlier about the potential clinical  
13 exposure. What is the clinical danger of this  
14 exposure? And I think most certainly the consensus of  
15 the medical establishment is that there is no cutoff  
16 under which there is no risk or danger of radiation,  
17 and that there is a linear relationship of radiation  
18 to health risk and health damage.

19 The 50 rem limit that was discussed might  
20 be a reasonable limit for acute radiation sickness,  
21 but we all know that radiation causes damage  
22 potentially not just acute radiation sickness but  
23 cancer, and heart disease, and many other types of  
24 ailments. And that as physicians we are concerned  
25 about an additional chest x-ray of 10 millirem for a

1 patient particularly women and children. And,  
2 therefore, there is no notion that somehow below that  
3 official cutoff that there would be no danger.

4 So, what this means then is that the  
5 people who are forced to shelter because of their  
6 circumstances actually are putting themselves at  
7 greater risk because they are getting more exposure.  
8 That exposure by definition in the linear no threshold  
9 model means that they are receiving a disproportionate  
10 health burden.

11 JUDGE McDADE: In this context you discuss  
12 facilities where people don't have personal control  
13 over their environment being particularly of concern.  
14 Who would be in such facilities, and why is it a  
15 particular concern in this context?

16 DR. KANTER: Well, just for the reasons  
17 that have been mentioned earlier by the witnesses,  
18 Tony and John, that in these kinds of environments,  
19 like prisons or assisted living facilities, that no  
20 matter how much preparation that those people might  
21 have received in terms of what they should do in case  
22 of an accident like this, they are dependent upon  
23 others to make those kinds of preparations or  
24 prevention for them. And under many of those  
25 circumstances where staff is not available, where in

1 the case of the prison where the staff would be  
2 preoccupied likely with other problems, that that  
3 means that there is not potential for protecting or  
4 securing those places against radioactive  
5 contamination.

6 JUDGE McDADE: Okay. Thank you, doctor. Mr.  
7 Filler, you had discussed a sort of broad range of  
8 areas in your direct testimony. If you could focus  
9 from that not on emergency generally but on what you  
10 consider the most significant disparate impacts on the  
11 environmental justice population within the radius,  
12 50-mile radius of Indian Point.

13 MR. FILLER: Well, the disparate impacts I  
14 looked at in my testimony related specifically to the  
15 emergency plans for Westchester County, Rockland  
16 County, New York State. And what I said there was  
17 there was a disparate impact was implicit in the  
18 sheltering in place that would exist for these special  
19 populations, hospitalized populations, prison  
20 populations, school populations. So, that disparate  
21 impact is really written into the documents, and it's  
22 part of the institutional response that would happen.

23 JUDGE McDADE: So, the nature is that those  
24 populations predominantly environmental justice  
25 populations would be far more likely to shelter in



1 place than to exit the area, and that would increase  
2 their exposure and, thus, their risk?

3 MR. FILLER: Exactly. And then in addition  
4 to that there -- for example, the Westchester plan,  
5 there isn't an accounting for how you would with  
6 people who are sheltered in place, how they would get  
7 water, how they would get food, if there would be  
8 proper ventilation. In the Rockland plan there isn't  
9 an accounting for how you're going to actually get the  
10 people out. When you get into an evacuation there's p-  
11 - I think the plan calls -- you need a certain number  
12 of buses, 695 buses available and you need more buses  
13 to actually move the people. And then there was also  
14 a requirement that the buses come back, so the plans  
15 aren't really -- you know, they don't really have the  
16 level of detail that you really want to see to do the  
17 evacuation or the shelter in place.

18 JUDGE McDADE: Okay. Is there anything else  
19 that you can point us to that would a particular  
20 source of the disparate impact on minorities and low-  
21 income individuals?

22 MR. FILLER: In the documentation that I  
23 looked at those are the main items that I found. I  
24 mean, there's a whole host of disparate impacts that  
25 we've been talking about earlier.

1 JUDGE McDADE: Okay. Ms. Greene, is there  
2 anything from your testimony, again not focusing on  
3 the totality of it, but rather focusing on those  
4 aspects of it that specifically relate to disparate  
5 impact on minority or low-income individuals?

6 MS. GREENE: Yes, Your Honor. We've talked  
7 quite a bit about the disparate impact of not having  
8 your own personal transportation. And we've talked  
9 about sheltering in place, but what we haven't talked  
10 about adequately, I think, is -- and I would ask if we  
11 could pull up Clearwater 56 for a minute, because I  
12 want people to think about what it means for people  
13 like Mr. Simms who is transportation-dependent and has  
14 to go to a bus route. It's page 5, please. And stand  
15 and wait being exposed for an unknown period of time,  
16 and wait and wonder. They're not sheltering in place  
17 and they are not being transported. They are waiting  
18 and being exposed. I think that perhaps that's  
19 something that hasn't adequately been considered in  
20 the discussion so far.

21 The other issue that -- two other issues  
22 that occur to me. One is, it's been alluded to but  
23 it's what's called "Pre-Disaster Vulnerabilities,"  
24 that is, a whole host of these things that have been  
25 brought out, the medical issues like somebody who has

1 diabetes, asthma, high blood pressure, people like  
2 that are already at risk, and put them in a stress  
3 situation and they may not have their medication, it  
4 may trigger an asthma response. And, by the way, I was  
5 a critical care nurse for 22 years so I'm very  
6 sensitive to these issues.

7           And I would say the last issue that we  
8 haven't really -- well, two others. One issue that we  
9 haven't really discussed is potential synergistic or  
10 cumulative effects. For example, and I think Mr. Mair  
11 alluded to this. If someone lives near Charles Point  
12 and they every day breathe a small amount of dioxin  
13 and other emissions from the plant, and they happen to  
14 also be Hispanic and part of the culture is to go and  
15 eat fish out of the Hudson River, and they get a  
16 little bit of PCB exposure. Both of those substances  
17 lower immune system so those populations, those people  
18 with that pattern can then have what I would call a  
19 cumulative effect, and sometimes a synergistic effect  
20 if they are also exposed to regular releases, and that  
21 would occur for another 20 years if this plant is  
22 relicensed, or accidental releases which are huge. So  
23 that someone who didn't live and wasn't exposed to  
24 those substances that are immune suppressive, and then  
25 in an immune suppressive to additionally be exposed to

1 radiation either in small or large doses, to me,  
2 that's a disproportionate impact.

3 JUDGE McDADE: Okay. Focusing back -- you  
4 talked about pre-disaster vulnerability. What pre-  
5 disaster vulnerabilities would be more pronounced in  
6 environmental justice populations than in the  
7 population generally?

8 MS. GREENE: Well, for example, Clearwater  
9 worked with various volunteers and agencies in the  
10 City of Peekskill and we did a comprehensive  
11 Environmental Justice Inventory for the City of  
12 Peekskill. And of the things we found was that one of  
13 the worst disproportionate ailments for people in  
14 environmental justice communities in Peekskill is  
15 asthma. So, if children with asthma are then exposed  
16 to the stress -- it's really what I just said but it's  
17 a very specific indication. And no one has looked at  
18 the environmental profile. I mean, Clearwater did the  
19 best job they could --

20 JUDGE McDADE: The children wouldn't be  
21 part of an environmental justice community. We're  
22 talking about minorities, we're talking about low-  
23 income people. Children would be across the board.  
24 They could be minority, non-minority, high-income,  
25 low-income. What specifically with regard to the

1 environmental justice populations --

2 MR. MAIR: If I may correct --

3 JUDGE McDADE: Yes.

4 MR. MAIR: Even though children are across  
5 the board, they bear again by definition of  
6 environmental justice where they're sited, where  
7 they're located, children of that community, you know,  
8 already bear a special burden. Again, I talked about  
9 the siting as you were mentioning of the incinerator  
10 that's there at Charles Point, so they're already  
11 bearing a disproportionate health benefit, I mean,  
12 negative amenity.

13 The other issue is --

14 JUDGE McDADE: But there you're talking  
15 about not children, generally. You're specifically  
16 talking about children who are also members of the  
17 minority community, or children of low-income  
18 families.

19 MR. MAIR: Correct. But environmental  
20 justice is not the narrow racial definition. It is  
21 also socio economic status, and I would also submit  
22 that the status of Peekskill if you were to look at it  
23 economically as it relates to other municipalities,  
24 its low-income status, it's relative political  
25 alienation and isolation has led it to become as they

1 would say a sacrifice zone. This is why a lot of the  
2 county planning policy that cites things like the  
3 regional incinerator, ash pit, regional sewerage dump  
4 goes there. So, the entire community, irrespective of  
5 income, has a negative impact, and not to mention  
6 their associated personal property values.

7 I'd also submit to you that the Hispanic  
8 community because of cultural custom and heritage  
9 dependency upon fish. Fishing is huge, so we talk  
10 about releases into the water. I assure you there has  
11 not been a study of the populations dependency upon  
12 the Hudson River as an alternative food source. Not  
13 everybody wants Food Stamps. A lot of people want the  
14 independence of fishing and living, even if that's  
15 what it takes to get a protein source. So, their  
16 protein source --

17 MR. BESSETTE: Paul Bessette, Your Honor.  
18 We would object, because that testimony has been  
19 excluded by Your Honor at the original Contention  
20 Admissibility.

21 JUDGE McDADE: Let's get back to Ms.  
22 Greene. Ms. Greene, you talked about the synergistic  
23 effect specifically focusing on those synergistic  
24 effects as they would affect environmental justice  
25 populations. Can you elaborate on that?

1 MS. GREENE: Well, the synergistic effect  
2 as it results -- as it impacts environmental justice  
3 populations that I was referring to was multiple  
4 exposures in an environmental justice community that  
5 were then exacerbated, for example, by a pattern of  
6 eating fish from the Hudson River which is  
7 contaminated in spite of health advisories, and we  
8 have done an anglers survey to determine that. And  
9 then in addition, so they have exposure from various  
10 facilities, they have exposure from the River. And  
11 these are environmental justice populations  
12 predominantly that are doing this fishing.

13 There are some members that are just out  
14 for recreational fishing, but there are people that  
15 are eating the fish because it is either part of their  
16 culture, particularly the Hispanic community, fish or  
17 crabs. They are ignoring health advisories, and all of  
18 this is really -- we've carefully documented.

19 MS. SUTTON: Kathryn Sutton, Your Honor. We  
20 renew our objection.

21 JUDGE McDADE: Okay, the objection is  
22 overruled. Please continue.

23 MS. GREENE: I'm sorry?

24 JUDGE McDADE: Please continue.

25 MS. GREENE: Okay, thank you.

1                   JUDGE McDADE: But I would wish you would  
2                   move on to -- you talked about pre-disaster  
3                   vulnerability and the synergistic impact. You  
4                   indicated that there was a third category, as well.  
5                   What is the third category where environmental justice  
6                   populations in your view would be disparately  
7                   impacted?

8                   MS. GREENE: I think it's not -- it's a  
9                   third point that I would like to make, it's not a  
10                  category, it's an approach. It seems to me that  
11                  because Clearwater was very interested in  
12                  understanding the potential environmental justice  
13                  impacts, we not only did this Environmental Justice  
14                  Inventory, but we did a lot of research and we found  
15                  out that there are real methods of -- that are used,  
16                  for example, in New Jersey and Massachusetts, and  
17                  these are cited. I can give you the references if you  
18                  need, where these cumulative effects on environmental  
19                  justice populations have been evaluated. None of that  
20                  evaluation appeared in the Environmental Report or the  
21                  FEIS.

22                  We also went out into the community  
23                  because we didn't go with a predetermination or  
24                  preconception of what the institutionalized  
25                  populations in and around Peekskill and in the 10-mile



1 zone particularly. We as volunteers went out into the  
2 community and interviewed people to try to determine  
3 what they knew about evacuation planning and whether  
4 or not the institutions such as daycare centers, and  
5 nursing homes, and a whole host of other communities  
6 had the information they needed to respond properly if  
7 there were a release of radioactivity. And we found  
8 that it was very variable. And unfortunately in many  
9 cases people either didn't know about potassium  
10 iodide, didn't have it on hand, were concerned about  
11 administering it. They didn't -- in some cases they  
12 were prepared, but in other cases they were really  
13 unprepared.

14 And I think the fact that we went to the  
15 trouble to look and find out facilities that house or  
16 provide services to environmental justice communities,  
17 how well prepared they were, is something that needs  
18 to be done more formally, and in a more comprehensive  
19 way. We were only able to go to a couple of dozen  
20 facilities. I think that that kind of specific  
21 outreach would be very valuable in helping to assure -  
22 - in helping to reduce potential disproportionate  
23 impacts on environmental justice communities.

24 JUDGE McDADE: Thank you, Ms. Greene. I  
25 think that ends the period where the Board has any

1 questions, further questions of these witnesses. As  
2 been our position over the last several contentions,  
3 the first question, and again with the same general  
4 guidance that we don't want repetition, we don't want  
5 just to go over the same thing over again just to have  
6 it at the end, but rather a specific thing where the  
7 testimony of a witness has been perhaps subject to  
8 being misconstrued, or giving an inaccurate or  
9 inappropriate impression to the Board.

10 Does Clearwater wish to interrogate any of  
11 these witnesses?

12 MR. WEBSTER: JUDGE, the reality is that we  
13 would be prepared to waive that if the other parties  
14 were, too. So, if you could give us a chance to --

15 JUDGE McDADE: New York?

16 MR. WEBSTER: If the other parties were  
17 prepared to so, too. So, if you give us a chance to  
18 interrogate, to talk to the other parties perhaps we  
19 can give you a definitive answer.

20 JUDGE McDADE: Well let me just ask, from  
21 New York, do you desire to interrogate these  
22 witnesses?

23 MR. SIPOS: No, Your Honor.

24 JUDGE McDADE: Entergy?

25 MR. TENPAS: Yes, Your Honor. We

1 particularly would request the opportunity redirect  
2 towards our witnesses.

3 JUDGE McDADE: How long do you anticipate  
4 you would take?

5 MR. TENPAS: Fifteen minutes.

6 JUDGE McDADE: Okay, in what general area  
7 do you believe their testimony might be confused?

8 MR. TENPAS: Your Honor, we believe their  
9 testimony would be necessary to insure the development  
10 of an adequate record as to a number of points that  
11 have been raised here, and with the process by which  
12 people have imagined disparate impacts to emerge.

13 JUDGE McDADE: Can you give us an idea of  
14 what some of those points are?

15 MR. TENPAS: For example, the lack of  
16 transportation, the idea that was expressed that the  
17 plans are simply plans, they're not real, they're not  
18 meaningful, they can't be expected to be successful.  
19 The fact that various, for example, claims that the  
20 poor lack transportation, the notion that shelter in  
21 place is inherently a worse opportunity --

22 JUDGE McDADE: Well, it's not lacking  
23 clarity on the part of your witnesses, but rather to  
24 rebut testimony that was presented by Riverkeeper's.

25 MS. RAIMUNDI: Clearwater, Your Honor.

1 JUDGE McDADE: One person at a time.

2 MR. TENPAS: I think it's both, Your Honor.  
3 It's both necessary to insure the adequacy of the  
4 record, and it's appropriate and necessary to avoid  
5 prejudice to us in terms of the scope of inquiry the  
6 Board has conducted.

7 JUDGE McDADE: Okay. Clearwater, do you  
8 want to go first or last?

9 MR. WEBSTER: Last, Your Honor, if we  
10 could.

11 JUDGE McDADE: Please proceed.

12 MR. TENPAS: Thank you, Your Honor.

13 MR. TURK: Your Honor, you did not inquire  
14 of the Staff, and I would note that we will have  
15 questions. And, in particular, because the Board has  
16 inquired extensively in the area of emergency  
17 preparedness, which the Commission has ruled out of  
18 license renewal proceedings, in order to assure a  
19 complete record I will need to conduct perhaps a half  
20 an hour or more of questioning on emergency  
21 preparedness issues, because the record currently is  
22 imbalanced, incomplete, and unfair.

23 JUDGE McDADE: Okay. Somehow that seemed  
24 inconsistent, Mr. Turk. You said that this is not  
25 relevant. The Commission has ruled it out, but you

1 want to take a half hour to develop a record with  
2 regard to it.

3 MR. TURK: Your Honor, I would be very  
4 pleased not to pursue it if I had assurance that the  
5 Board will not go into emergency preparedness issues,  
6 such as Letters of Agreement, the adequacy of buses,  
7 evacuation time estimates, the ability to evacuate  
8 institutions from within the EPZ. These are all  
9 emergency preparedness issues which the Board has  
10 inquired about. I assume if the Board inquired about  
11 them it's because you intend to pay some attention to  
12 these issues in your decision. If not, then I will not  
13 ask any questions in that area.

14 JUDGE McDADE: Okay. While Clearwater and  
15 Entergy are going, if you could cut down your time on  
16 that. Again, and I guess maybe I made an error because  
17 you brought this up several times. It had been my  
18 intent at the outset of this hearing to mention that,  
19 one, this is fact finding, it's not for legal  
20 argument. And, also, going through what the contention  
21 is about and what it is not about, and that it is not  
22 a challenge to the evacuation plan, not a challenge to  
23 the SAMA, but rather talking about the lack of  
24 analysis presented for the disproportional increase in  
25 exposure of radiation to the EJ population. So,

1       apparently, I forgot to say that at 2:00 when we began  
2       the proceeding. So, I understand since I forgot to say  
3       that, why perhaps you could have some confusion with  
4       regard to the focus of what we've been doing for the  
5       last four hours. But we will start with Entergy.

6               Before we get started, one question I do  
7       have. Does anybody anticipate a question of Ms.  
8       Guardado? The reason I ask that is the translator  
9       needs to leave.

10              MS. SUTTON: Kathryn Sutton for the  
11       Applicant. No, Your Honor.

12              MR. WEBSTER: No, Your Honor.

13              JUDGE McDADE: You, Mr. Turk?

14              MR. TURK: One limited question or a short  
15       series of questions, Your Honor.

16              JUDGE McDADE: For Ms. Guardado?

17              MR. TURK: Yes.

18              JUDGE McDADE: Although I said Entergy  
19       would go first, Mr. Turk, you have a few minutes  
20       before the translator leaves.

21              MR. TURK: Thank you. Ms. Guardado, I'm  
22       sorry, I probably am pronouncing your name wrong  
23       because I cannot see it. I apologize. My name is  
24       Sherwin Turk. I'm a lawyer with the NRC Staff.

25              You indicated that you have not seen any

1 materials in Spanish regarding evacuation planning?

2 MR. WEBSTER: Objection, Your Honor;  
3 mischaracterizes the testimony.

4 JUDGE McDADE: Sustained.

5 MR. TURK: Have you seen any information  
6 about evacuation planning written in Spanish?

7 MS. GUARDADO: (Through interpreter). To be  
8 honest with you, I have not seen them until the time  
9 that we were going through these proceedings. I  
10 realize that they do exist. In reality in the  
11 community where I live I have not found any material  
12 that can explain to me with respect to an evacuation.  
13 And I would like to have some awareness and be able to  
14 work focus groups because it is for the benefit of the  
15 Hispanic community.

16 MR. TURK: In other words, you don't  
17 contest the fact that such information may exist;  
18 however, you can not see it until you became involved  
19 in this proceeding.

20 MR. WEBSTER: That's repetitive, Your  
21 Honor. Objection.

22 JUDGE McDADE: I'm going to allow it.

23 MS. GUARDADO: I haven't seen it, and  
24 that's what I can say. I can't say that I've seen it  
25 when I have not been able to see it.

1 MR. TURK: No further questions, Your  
2 Honor, of this witness.

3 JUDGE McDADE: Any objection to Ms.  
4 Guardado being excused?

5 MR. SIPOS: No, Your Honor. John Sipos for  
6 the State.

7 MR. WEBSTER: No, Your Honor. Richard  
8 Webster for Clearwater.

9 JUDGE McDADE: Entergy?

10 MR. TENPAS: No, Your Honor, none from  
11 Entergy.

12 JUDGE McDADE: Okay, Ms. Guardado, thank  
13 you very much for being here.

14 MS. GUARDADO: You are very welcome.

15 JUDGE McDADE: You could either remain or  
16 leave, but you are going to be losing the services of  
17 your translator here in just a moment.

18 MS. GUARDADO: Thank you very much for the  
19 participation.

20 JUDGE McDADE: Okay, thank you.

21 MR. WEBSTER: Judge, thank you for the  
22 Board's help in organizing the translator. That was  
23 very helpful.

24 JUDGE McDADE: Okay. Is Entergy ready to  
25 proceed?



1 MR. TENPAS: We are, Your Honor. Mr.  
2 Slobodien, you've heard a number of concerns expressed  
3 about the way in which response activities might be  
4 inadequate. Can you describe just generally whether  
5 there is any kind of planning standard or regulatory  
6 requirement to which Westchester County or other  
7 government entities, that they must meet in developing  
8 their plans?

9 MR. SLOBODIEN: Yes, there are two levels  
10 of standards. The first comes from the federal  
11 government and is found in NUREG-0654, which is an  
12 exhibit. And it is found in FEMA-REP-1 in the REP  
13 Manual, also exhibits.

14 Then in the case of New York, there are  
15 state level codes and laws that direct specific  
16 requirements for emergency planning for a variety of  
17 institutions, including schools, daycare centers,  
18 hospitals, nursing homes and the like.

19 MR. TENPAS: You mentioned that schools,  
20 and hospitals, and the like have some obligation. What  
21 about any particular unit of government?

22 MR. SLOBODIEN: Yes, the State Executive  
23 Law 2b, which is the overarching emergency planning  
24 law, directs counties to carry out emergency planning  
25 functions to protect public health and safety for

1 their citizens.

2 JUDGE McDADE: Okay, let me interrupt for  
3 just a second. You referenced NUREG-0654?

4 MR. SLOBODIEN: Yes, Your Honor.

5 JUDGE McDADE: Which I believe is Entergy  
6 Exhibit 271. Is that correct?

7 MR. SLOBODIEN: Yes, Your Honor.

8 MR. TENPAS: Yes, Your Honor.

9 JUDGE McDADE: And then you referenced  
10 Entergy Exhibit 272?

11 MR. TENPAS: That's the FEMA -- I'm sorry.

12 MR. SLOBODIEN: NUREG -- Your Honor, NUREG-  
13 0654 and FEMA-REP-1 are the same document, and they  
14 are Entergy Exhibit 271.

15 JUDGE McDADE: And 272 is the New York  
16 State Radiological Emergency Preparedness Plan.  
17 Correct? Is that what you're referring to?

18 MR. SLOBODIEN: I was referring to  
19 Executive Law 2b, and -- one moment, Your Honor.

20 JUDGE McDADE: Okay, I'm sorry. I thought  
21 you had referred to the New York State Radiological  
22 Emergency Preparedness Plan, as well. Had you?

23 MR. SLOBODIEN: Not yet.

24 JUDGE McDADE: Okay. Well, when you do  
25 it'll still be 272.

1 MR. SLOBODIEN: Yes, Your Honor. I  
2 understand.

3 JUDGE McDADE: Okay.

4 MR. SLOBODIEN: Let me see if I can recover  
5 where I was going. The --

6 MR. TENPAS: Your Honor, if --

7 JUDGE McDADE: That's all right. We'll find  
8 it later.

9 MR. TENPAS: Can I assist the witness and  
10 just direct his attention to Entergy 283 and see if  
11 that's part of what he was intending to be  
12 referencing?

13 MR. SLOBODIEN: Yes, Your Honor. That is  
14 New York State Executive Law 2b. That Executive Law  
15 sets forth the requirements in a broad way for levels  
16 of government including the state and counties to  
17 carry out protection of public health and safety for  
18 a wide variety of disasters including radiological  
19 emergencies.

20 MR. TENPAS: And, generally, can you  
21 summarize do they just say you must plan, or do these  
22 requirements say you must plan to meet a certain level  
23 of substantive outcomes, substantive protection?

24 MR. SLOBODIEN: The guidance, the federal  
25 guidance which is found in FEMA document, FEMA-REP-1,

1 also in 40 CFR 350 lays forth the specific  
2 requirements for governments at state and local levels  
3 to carry out emergency response. And the NRC says that  
4 federal guidelines must be used for carrying out  
5 emergency plans and planning response.

6 MR. TENPAS: Okay. And what level of  
7 protection do those guidelines call to be achieved?

8 MR. SLOBODIEN: The guideline states that  
9 the -- and the requirement in regulation is that a  
10 reasonable assurance is provided to protect public  
11 health and safety, and it's for everyone.

12 MR. TENPAS: Does it identify any  
13 exceptions for any populations, locations, localities  
14 where a community or a state can say well, we're going  
15 to do it for everybody but that group?

16 MR. SLOBODIEN: There are no exceptions.

17 MR. TENPAS: Okay. Now, you heard some  
18 discussion of a set of concerns about evacuation  
19 problems itemized sort of by groups. I'd like to take  
20 you through those quickly. First, you heard some  
21 discussion about the possibility that the poor because  
22 of lack of cars, lack of buses, may not -- if it's  
23 necessary to evacuate may not be able to do that. Do  
24 you have any comment on that, or how -- whether that  
25 is considered as a problem in these plans?

1 MR. SLOBODIEN: The county plans have  
2 clearly considered the need to evacuate everyone from  
3 the county, those who have their own resources, those  
4 who don't have resources, those who are transportation  
5 dependent, those who are not ambulatory, those who are  
6 sick, those who are in schools, those who are in  
7 nursing homes. In every respect of the concerns that  
8 were raised the county has plans for dealing with  
9 those, and demonstrates them, and FEMA must evaluate  
10 those demonstrations during periodic exercises.

11 MR. TENPAS: Okay. So, that talks about  
12 Westchester County and its consideration of these. I  
13 thought I heard you mention that in addition to the  
14 county, the facilities themselves, a nursing home for  
15 example, or an assisted living location may have its  
16 own supplementary or individualized obligation in this  
17 respect. Is that correct?

18 MR. SLOBODIEN: They are required by state  
19 code to have those. And I cite there Entergy Exhibits  
20 289, 292, 293, and 294 which are the New York codes  
21 that address those areas.

22 MR. TENPAS: Okay. So, are schools one of  
23 those types of facilities?

24 MR. SLOBODIEN: Yes, they are.

25 MR. TENPAS: Would a jail be one of those

1 types of facilities, or a prison?

2 MR. SLOBODIEN: Yes, it is.

3 MR. TENPAS: A hospital?

4 MR. SLOBODIEN: Yes.

5 MR. TENPAS: An assisted living facility?

6 MR. SLOBODIEN: Yes.

7 MR. TENPAS: There has also been some  
8 discussion here about shelter in place. Can you  
9 discuss whether in your view and based on your  
10 experience shelter in place is necessarily an inferior  
11 response to evacuation for all circumstances?

12 MR. WEBSTER: Objection; no foundation.

13 JUDGE McDADE: The objection is overruled.

14 MR. SLOBODIEN: Yes. In some cases,  
15 sheltering in place is a superior protective measure.  
16 EPA 400 describes a variety of situations in which  
17 sheltering could be and is a superior protective  
18 measure, and considers among other things the nature  
19 of the plume. So, for example, plumes that are what we  
20 call puff plumes that are passing quickly, often we  
21 would benefit from sheltering rather than evacuation.

22 Furthermore, structures of various types  
23 have protective action by virtue of the nature of the  
24 structure. FEMA -- I'm sorry, EPA 400 provides a  
25 specific set of recommendations and a table of values

1 of those protection values, dose reduction values that  
2 range from essentially none for some structures, to as  
3 much as 80 percent for large structures, such as big  
4 buildings, large apartment buildings, masonry  
5 structures and the like.

6 MR. TENPAS: And there's been some  
7 suggestion here that maybe institutional structures  
8 are sort of inherently worse or undesirable. Can you  
9 comment at all on that notion?

10 MR. SLOBODIEN: Institutional structures  
11 are often superior because of the nature of the  
12 structure and the fact that shielding is provided not  
13 only for the passing plume but also for ground  
14 deposition. So, they may be beneficial in those  
15 instances.

16 MR. TENPAS: Okay. There's been some  
17 discussion about potential challenges that Spanish  
18 speaking populations might follow or confront, and  
19 questions about whether materials in advance are  
20 available. First, can you talk at all about the  
21 efforts that are made in advance of an incident to  
22 provide materials to communities that might be of  
23 particular concern, including Spanish speaking?

24 MR. SLOBODIEN: Well, with regard to  
25 language the first action is to determine whether or

1 not a particular language represents more than 5  
2 percent of the population. In this case of Indian  
3 Point, Westchester County has such population.

4 The counties and Entergy put out a variety  
5 of information in Spanish in Westchester County  
6 including brochures, internet web pages. They have the  
7 capability of using telephone notification during an  
8 emergency, radio announcements are multilingual, TV  
9 announcements are multilingual. The State Office of  
10 Finance is used by the State of New York to handle  
11 inquiries during an emergency, and it's multilingual  
12 beyond Spanish. It has many language capabilities.

13 The hearing impaired which are perhaps a  
14 language concern are also addressed. When public  
15 statements are made particularly on television,  
16 signers are used to assist hearing impaired.

17 MR. TENPAS: Okay. I want to break it up a  
18 little chronologically. So, with respect to materials  
19 that might be going out by way of education or general  
20 education today or at a time before any incident, some  
21 of -- those are provided in multiple languages?

22 MR. SLOBODIEN: Those are provided in  
23 English and Spanish in Westchester County.

24 MR. TENPAS: Based on your experience in  
25 this area, is it the expectation that you're going to



1 achieve 100 percent penetration, reach every person  
2 through that?

3 MR. SLOBODIEN: No, that's why multiple  
4 methods are used for trying to reach parties, the  
5 methods that I just described.

6 MR. TENPAS: Okay. Now, let's take the  
7 hypothetical that something does happen and word needs  
8 to be gotten out to the communities as to how to  
9 respond. Based on your review of the plans and your  
10 experience in the area, can you describe how one would  
11 take account of Spanish language speaking challenges?

12 MR. SLOBODIEN: Emergency information would  
13 be provided on radio, television, the county internet,  
14 the state internet, and through the state's Emergency  
15 Management Internet System called "New York Alert."

16 MR. TENPAS: Okay. And in what language  
17 would those communications be conducted?

18 MR. SLOBODIEN: English and Spanish in the  
19 case of Westchester County.

20 MR. TENPAS: You mentioned something about  
21 a 1-800 number. Can you talk about where that fits in?

22 MR. SLOBODIEN: The State of New York  
23 through its Taxation and Finance Division has an  
24 inquiry number. It's an 800 number accessible to  
25 anyone, not just a New York resident. Tax and Finance

1 has a large group of people who have many language  
2 skills, not limited to English and Spanish, but a wide  
3 variety of languages. And that facility is activated  
4 in a radiological emergency according to the State  
5 Radiological Emergency Plan, and it responds to  
6 inquiries in a wide variety of languages. Most  
7 recently it was tested during an exercise in September  
8 2012.

9 MR. TENPAS: Okay, that's a useful segue.  
10 There was some discussion where people --

11 JUDGE McDADE: Actually, if it's a useful  
12 segue, before you get to the segue, let me just  
13 interrupt for a second just to make sure when I go  
14 back and read the transcript I can find what you're  
15 talking about. You're talking specifically about  
16 guidance that if over 5 percent of a specific language  
17 is spoken in a particular geographic area, that's from  
18 FEMA Program Manual of Radiological Emergency  
19 Preparedness, Entergy 295. Is that correct?

20 MR. SLOBODIEN: Yes, Your Honor.

21 JUDGE McDADE: And you talked a Spanish  
22 edition of the Westchester County Indian Point  
23 Emergency Guide. That's Entergy 296?

24 MR. SLOBODIEN: Yes, Your Honor.

25 JUDGE McDADE: And you talked about

1 guidance for interrelation with media in non-English,  
2 and you referred I believe to an emergency plan. Would  
3 that be the Entergy 285D exhibit?

4 MR. SLOBODIEN: Yes, Your Honor.

5 JUDGE McDADE: Okay, thank you. I just want  
6 to make sure I can find these things when we go back  
7 and look at the transcript.

8 MR. TENPAS: Thank you, Your Honor. We'll  
9 go back and looking, too, so we appreciate your  
10 assistance there.

11 So, we were talking a moment ago about the  
12 plans and there's been some concerns expressed that  
13 plans are nice but you can't really count on them.  
14 There's no reason to think they'll really be  
15 effective. Are there efforts made to evaluate the  
16 reality of the plans, the likelihood of their really  
17 being effective?

18 MR. SLOBODIEN: There are two types of  
19 efforts in that regard. The State of New York conducts  
20 an effort in an odd year, in odd numbered year such as  
21 2011, and it evaluates the counties in the Indian  
22 Point Emergency Planning Zone. The federal government  
23 through FEMA evaluates all parties, including the  
24 state and the counties on the even years. And this  
25 year is an even year. There was an exercise that FEMA

1 evaluated. FEMA evaluates performance not only during  
2 the exercise but throughout the year to develop its  
3 assessment of the capabilities of the government  
4 agencies in county level and state.

5 MR. TENPAS: And do you know FEMA has most  
6 recently done its work?

7 MR. SLOBODIEN: The most recent FEMA  
8 evaluation was in September and October of this year.

9 MR. TENPAS: Now, do you know, does FEMA do  
10 that just because they think it's a good idea, they  
11 have a statutory charge or direction to do that kind  
12 of thing? Why are they in the mix?

13 MR. SLOBODIEN: FEMA is charged to do that  
14 by the Memorandum of Understanding between the NRC and  
15 FEMA. The Presidential Directive distinguished between  
16 FEMA responsibilities and NRC responsibilities in that  
17 regard for radiological emergency planning.

18 MR. TENPAS: Your Honor, I'd request the  
19 Board's indulgence. That concludes my line. I think I  
20 spoke just one moment too quickly. I would request the  
21 opportunity for one line of very limited cross of Dr.  
22 Mair for clarification purposes as to the following  
23 issue.

24 He spoke at considerable length about how  
25 he conceives that EJ should be imagined and what

1 communities should be embraced with that. I would just  
2 seek clarification whether that is based on his belief  
3 that it's a regulatory requirement to view it that  
4 way, or whether that's his notion --

5 JUDGE McDADE: The question is what is his  
6 basis for that --

7 MR. TENPAS: Yes, whether -- I'm sorry.

8 JUDGE McDADE: I'll allow you --

9 MR. TENPAS: Okay, thank you. I'm sorry,  
10 I'm catching you unaware, Dr. Mair. Are you ready over  
11 there?

12 MR. MAIR: Yes.

13 MR. TENPAS: Okay. You offered an extended  
14 discussion about how you thought EJ should be  
15 conceived and that it shouldn't be thought of solely  
16 in terms of race, or as I understand it solely in  
17 terms of economic income status. Is that a fair  
18 understanding of your testimony?

19 MR. MAIR: That is not only my testimony,  
20 that is the fact in reality. In fact, the National  
21 Environmental Justice Network and the Environmental  
22 Justice Resource Center at Clark Atlanta University  
23 has a robust site of what EJ is and isn't. And one of  
24 the things you do not find is a formula that says that  
25 EJ is a census determination combined with the

1 variables of race and/or income.

2 MR. TENPAS: Thank you. So, the --

3 MR. MAIR: Exclusively.

4 MR. TENPAS: The groups in those sites that  
5 you're referring to, when they're describing what they  
6 conceive EJ to be and not to be are private  
7 organizations. Correct?

8 MR. MAIR: Say that again.

9 MR. TENPAS: The groups and websites that  
10 you referenced who prepared documents saying here's  
11 what we conceive EJ to be about and what it should  
12 cover, those are private organizations. Correct?

13 MR. MAIR: Well, more than that. Dr.  
14 Charles Lee who is one of the EPA experts for the  
15 National Environmental Justice Advisory Committee had  
16 worked a lot on -- in fact, he did the pioneering  
17 study and he's staff at the EPA. But equally and more  
18 importantly, this is the standard that when  
19 communicated in creating the Executive Order,  
20 naturally they did not prescribe a particular formula,  
21 per se, but it is not the notion of a few private  
22 groups. It is the entities that define the language,  
23 and more importantly the EJRC at Clark Atlanta  
24 University is a university that provides I would say  
25 the nation's best expertise on these definitions.

1 MR. TENPAS: Okay. In terms of an agency's  
2 obligation such as the NRC, based on your experience  
3 and expertise, would you agree with me that an agency  
4 in understanding what its obligations to conduct EJ  
5 analysis is governed by the directions of the Council  
6 on Environment Equality and their regulations?

7 MR. WEBSTER: Objection; that calls for a  
8 legal conclusion.

9 JUDGE McDADE: Sustained.

10 MR. MAIR: Rephrase.

11 MR. TENPAS: Would you agree that the  
12 positions -- in taking these positions about what EJ  
13 should be and should mean, these various private  
14 organizations, what they are seeking to do --

15 MR. WEBSTER: Objection. The witness has  
16 said that these were just private organizations, and  
17 the witness cited an NRC document while giving his  
18 testimony.

19 JUDGE McDADE: Excuse me. When you have an  
20 objection initially just simply state the objection.  
21 I will allow the completion of the question so I have  
22 a full idea of what the objection is to. But I won't  
23 forget you. If you sit there and say objection, I just  
24 won't let it go along. But, anyway, finish the  
25 question. Don't start answering the question until

1 your counsel has an opportunity to explain his  
2 objection.

3 MR. TENPAS: Thank you, Your Honor. Let's  
4 set aside the EPA, the work that was done by a single  
5 EPA employee, refer to documents put out by a number  
6 of organizations in which they describe what they  
7 think EJ should be and is about. Correct?

8 MR. WEBSTER: Objection, Your Honor. The  
9 witness referred to a document written by NRC Staff.

10 MR. TENPAS: I'm sorry, if I misspoke, NRC  
11 Staff rather than EPA Staff.

12 MR. WEBSTER: No, the witness referred to  
13 EPA Staff, as well.

14 MR. TENPAS: Okay.

15 MS. SUTTON: Kathryn Sutton for the  
16 Applicant.

17 JUDGE McDADE: Excuse me. I'm going to  
18 allow the question. This is a witness who I think is  
19 very capable of listening to the question, and if he  
20 agrees with part of it and not other parts of it, of  
21 articulating that part which he agrees with, and that  
22 part which he disagrees with, and not to take it as a  
23 all or nothing. Do you need the question repeated,  
24 sir?

25 MR. MAIR: Please.



1 MR. TENPAS: Okay. The various  
2 organizations that you've referenced that take and try  
3 to define what EJ is, would you agree with me that in  
4 doing that they are trying to influence and change  
5 government practices?

6 MR. MAIR: No.

7 MR. TENPAS: So --

8 MR. MAIR: Let me clarify.

9 JUDGE McDADE: You can if you want, but  
10 you've answered the question.

11 MR. MAIR: Yes.

12 JUDGE McDADE: If you feel it needs  
13 clarification, you can.

14 MR. MAIR: Just -- yes, let me -- the  
15 answer is no. When helping to shape the State of New  
16 York's EJ Advisory area, EJ definition area, it was an  
17 interdisciplinary body, panel and it included a whole  
18 range of variables. In fact, it used the model that  
19 was generated as a baseline by the U.S. Department of  
20 -- well, the U.S. Department of Environmental  
21 Protection Agency, EPA. They actually developed a  
22 software to aid and facilitate the creation on  
23 definition of EJ areas. And at a minimum, I believe  
24 race and poverty variables amongst many from the  
25 census were used to set up their algorithm. So, (a)

1 no, it is not something that is the domain of private  
2 or individuals, it has been a collaborative effort, no  
3 more than the U.S. Chamber of Commerce has helped  
4 shape trade policy, and helped shape regulations and  
5 rules. So, it's a function of both I would say  
6 government, public and private, but in so far as the  
7 hard and fast this is the rule, the answer is no.

8 MR. TENPAS: Well, ultimately, the process  
9 you were just talking to culminated in the Government  
10 of New York, the official State of New York  
11 promulgating rules. Correct?

12 MR. MAIR: Correct.

13 MR. TENPAS: So, it was ultimately the  
14 State of New York's rule that resulted from that  
15 process you described. Correct?

16 MR. MAIR: If you're talking to the  
17 variables that I saw there of using race only and  
18 income only, that is not the algorithm that I am  
19 familiar with.

20 MR. TENPAS: Would you agree, similarly,  
21 that the federal algorithms have perhaps emerged  
22 through a similar process, discussion and interchange  
23 between government and private with government  
24 agencies finally issuing more formal standards and  
25 guidance?

1 MR. MAIR: Agree.

2 MR. TENPAS: Nothing further, Your Honor.

3 JUDGE McDADE: Mr. Webster.

4 MR. WEBSTER: Your Honor, maybe I can just  
5 start with a few questions of the NRC Staff. Ms.  
6 Milligan, you referred to Entergy 266, the CEQ EJ  
7 guidelines. I think you referred to page 32 on the  
8 PDF, if we can pull that up. That's Entergy 266. If we  
9 go to page 32 of the PDF, halfway down the -- the top  
10 part of the page where it starts -- there's underlined  
11 page 32 of the PDF. Maybe my New Jersey accent is  
12 causing a problem here. So, you start in the paragraph  
13 where it says "disproportionate adverse." That's the  
14 one, exactly.

15 Ms. Milligan, is this the paragraph that  
16 you read out during your testimony?

17 MS. MILLIGAN: Yes.

18 MR. WEBSTER: And would you like to look at  
19 Part B of that section and just read it again for me.

20 MS. MILLIGAN: Certainly. "Whether the risk  
21 or rate of hazard exposure by minority population,  
22 low-income population, or Indian tribe to an  
23 environmental hazard is significant (as employed by  
24 NEPA) and appreciably exceeds or is likely to  
25 appreciably exceed the risk or rate to the general

1 population or other appropriate comparison group."

2 MR. WEBSTER: Okay. And have you done a  
3 study that determines whether the risk to minority,  
4 low-income populations in accident scenarios  
5 appreciably exceeds or is likely to appreciably exceed  
6 the risk or rate to the general population?

7 MS. MILLIGAN: No, we look at the entire  
8 population. We don't single out any particular  
9 population. When we consider offsite consequences it's  
10 for the entire population. It's for nursing home  
11 patients, it's for low-income patients, or people.  
12 It's for everyone in the area. We don't single out and  
13 say let's just look at this, we look at everyone. And  
14 we plan accordingly to insure that the risks are not -  
15 - are within the federal limits so there is no adverse  
16 effect, or disproportionately high adverse effect on  
17 the population. I'm sorry.

18 MR. WEBSTER: So, you don't -- let me just  
19 clarify that. At the end you got a little confusing  
20 there.

21 MS. MILLIGAN: Yes, I was trying to  
22 remember all the words.

23 MR. TURK: And I would also ask the witness  
24 to speak a little more slowly so the reporter can  
25 capture it all.

1 MS. MILLIGAN: Yes, sorry.

2 JUDGE McDADE: Our reporter is a wizard,  
3 but do speak a little slower.

4 MS. MILLIGAN: Absolutely, sir. Sorry.

5 MR. WEBSTER: So, when do you a study of  
6 risk to accident you look at the whole population, you  
7 don't segregate out environmental justice populations.  
8 Is that correct?

9 MS. MILLIGAN: That's correct, but we do  
10 look at maximally exposed individuals.

11 MR. WEBSTER: Okay.

12 MS. MILLIGAN: So, we don't consider --

13 MR. WEBSTER: Let me ask this question, if  
14 you don't -- go ahead.

15 MS. MILLIGAN: We consider the maximally  
16 exposed individuals as part of our analysis.

17 MR. WEBSTER: And how does looking at the  
18 maximally exposed individual determine whether there's  
19 a differential between the environmental justice  
20 populations and general populations?

21 MS. MILLIGAN: Well, as I said, sir, we're  
22 not looking at environmental justice environmental  
23 populations from my perspective for an accident  
24 analysis. When I'm looking at what would be the doses  
25 as a result of an accident I'm looking at what would

1 the impact be to the entire population, all the  
2 people. And then I look at who the maximally exposed,  
3 and then I look at what the impact would be of  
4 successful emergency planning efforts on those  
5 populations. From that, we have our regulations that  
6 are set up and implemented, exercised, tested, and  
7 evaluated on a regular basis that provide the  
8 assurance that those populations, all populations will  
9 be protected within the federal limits -- guidelines.

10 MR. WEBSTER: Okay, thank you. Mr. Rikhoff,  
11 a question for you. Referring to Entergy -- sorry,  
12 referring to NRC 63, which I believe is JRR. That's  
13 your testimony, answer 23. If you can pull that up,  
14 that's at page 18 of the PDF. A23, could you just read  
15 the second sentence for me?

16 MR. RIKHOFF: "While census block data is  
17 preferred for identifying the location of minority  
18 communities, census block group data was chosen  
19 because it contains poverty and income information."

20 MR. WEBSTER: Okay. Did Entergy also supply  
21 you with -- well, let's ask first, why is census block  
22 data preferred rather than census block group data?

23 MR. RIKHOFF: Well, as previously stated in  
24 someone else's testimony, block data is more finite.  
25 It also -- census provides demographic information at

1 the block level.

2 MR. WEBSTER: And as part of the SAMA  
3 analysis, did Entergy supply the agency with the  
4 census block data?

5 MR. RIKHOFF: I'm not an expert, and I did  
6 not conduct the SAMA analysis.

7 MR. WEBSTER: Okay. Did you ask your  
8 colleagues who did come up with the SAMA analysis if  
9 they had that data?

10 MR. RIKHOFF: No, sir.

11 MR. WEBSTER: If using census block data is  
12 preferred, why didn't you obtain that data?

13 MR. RIKHOFF: I've used census block data  
14 in the past, but as CEQ guidance provides for federal  
15 agencies, you can use up to the census tract level. I  
16 mean, all this information is various groupings of  
17 census information. Block group data is just as  
18 accurate. It includes the block-level data.

19 MR. WEBSTER: So, why didn't you do the  
20 analysis that's preferred here?

21 MR. RIKHOFF: I was following NRC guidance.

22 MR. WEBSTER: Well, when you say census  
23 block data is preferred, is that not embodied in any  
24 NRC guidance or is that your personal opinion?

25 MR. RIKHOFF: Personal opinion.

1 MR. WEBSTER: Okay. So, if we refer to  
2 Clearwater Exhibit 51, that is an account of an NRC  
3 analysis of VC Summer. Have you reviewed that exhibit?

4 MR. RIKHOFF: Yes, I have.

5 MR. WEBSTER: And do you agree with me that  
6 that suggests that the NRC is progressing in its EJ  
7 analysis to excellence?

8 MR. RIKHOFF: I do not agree with --

9 JUDGE McDADE: I'm going to --

10 MR. RIKHOFF: I'm sorry.

11 JUDGE McDADE: You don't have to answer  
12 that. He's simply asking for speculation.

13 MR. RIKHOFF: Okay.

14 MR. WEBSTER: Do you agree with me --

15 MR. TENPAS: Thank you, Your Honor.

16 MR. WEBSTER: -- that in some  
17 circumstances the NRC guidelines on assessment of  
18 environmental justice require going beyond the census  
19 block group analysis?

20 MR. RIKHOFF: This is not NRC guidance.  
21 This was a presentation at a convention.

22 MR. WEBSTER: That's right. Could you  
23 answer my question?

24 JUDGE McDADE: The question has to do with  
25 guidance, not with this particular exhibit, but with



1 the NRC guidance that you referred to earlier.

2 MR. RIKHOFF: No, because we follow the  
3 Executive Order 12898 which specifically states that  
4 we consider the impacts to minority and low-income  
5 populations, as stated in the title of Executive Order  
6 12898.

7 MR. WEBSTER: So, to be clear, it's your  
8 testimony that you never have to go beyond census  
9 block group analysis irrespective of the outcome of  
10 that analysis.

11 MR. RIKHOFF: Not in an EJ analysis.

12 MR. WEBSTER: Okay. And, sir, have you done  
13 similar analyses for other plants, other plants during  
14 relicensing?

15 MR. RIKHOFF: Yes, sir.

16 MR. WEBSTER: And how many plants have you  
17 analyzed?

18 MR. RIKHOFF: I've been involved with 45,  
19 more than 45 Environmental Impact Statements,  
20 Environmental Justice Analyses, approximately 60  
21 including Environmental Assessments for Research Test  
22 Reactor Renewals, as well as extended power uprates.

23 MR. WEBSTER: Okay. For the relicensing,  
24 how many relicensings have you been involved with in  
25 terms of environmental justice analysis?

1 MR. RIKHOFF: That would be 50.

2 MR. WEBSTER: Okay. And of those 50  
3 analyses how many have found disproportionate impacts?

4 MR. RIKHOFF: None in license renewal.

5 MR. WEBSTER: I just have a couple of  
6 questions for Mr. Slobien?

7 MR. SLOBODIEN: Slobodien.

8 MR. WEBSTER: Slobodien, I apologize.

9 JUDGE McDADE: It was the New Jersey  
10 accent.

11 MR. WEBSTER: I was just in Slovenia so I'm  
12 obviously making a few mistakes here.

13 Do you agree with me, Mr. Slobodien, that  
14 the NRC guidance requires site-specific analysis of  
15 environmental justice impact?

16 MR. SLOBODIEN: I'm not an expert in  
17 environmental justice. I'm a health physicist and an  
18 expert in emergency planning. I can't answer that  
19 question.

20 MR. WEBSTER: In terms of your outreach to  
21 minority populations have you tested how successful  
22 that outreach is?

23 MR. SLOBODIEN: Not in an analytical way,  
24 but the counties of -- in particular, Westchester,  
25 through anecdotal work and through their staff who are

1 in social services test those performance.

2 MR. WEBSTER: So Entergy, itself, does not  
3 test.

4 MR. SLOBODIEN: Entergy has not, no.

5 MR. WEBSTER: What has Entergy done to  
6 determine the site-specific ability of buildings  
7 around Indian Point, to determine the site-specific  
8 suitability of the buildings around Indian Point for  
9 shelter in place?

10 MR. SLOBODIEN: Entergy relies on the EPA  
11 guidance in EPA 400.

12 MR. WEBSTER: I don't think you answered my  
13 question, though. What was the answer to my question?

14 JUDGE McDADE: He did answer your question.

15 MR. WEBSTER: Is it true to say that  
16 Entergy has not done any site-specific work on those  
17 buildings, institutional buildings around Indian Point  
18 to determine how suitable they are for shelter in  
19 place?

20 MR. SLOBODIEN: Entergy relies on EPA  
21 guidance for making evaluations on institutional  
22 facilities as to their dose reduction potential.

23 JUDGE McDADE: That means no.

24 MR. SLOBODIEN: Yes, Your Honor, that's no.

25 MR. WEBSTER: Thank you, Your Honor. Okay.

1 Back to Mr. Rikhoff. I believe you testified -- this  
2 is the last question. That 57 block groups that  
3 contain environmental justice -- that meet NRC's  
4 environmental justice criteria are identified in the  
5 ER in the FSEIS, including the block groups that  
6 contain Sing Sing and the Westchester County  
7 Correction facilities. Is that correct?

8 MR. RIKHOFF: Yes.

9 MR. WEBSTER: So, you agree with me that  
10 the populations inside these facilities are  
11 incarcerated?

12 MR. RIKHOFF: I'm not sure I understand the  
13 question.

14 MR. WEBSTER: Your testimony is that  
15 there's 57 block groups that contain correctional  
16 facilities.

17 MR. RIKHOFF: No, that's not what I said.

18 MR. WEBSTER: Okay. Can we go to Entergy --  
19 oh, no wonder, this is my annotation. It's actually  
20 Mr. Riggs who said this. Perhaps I can -- I have two  
21 JRs on my notation here. My apologies.

22 Mr. Riggs, does that sound familiar?

23 MR. RIGGS: It does sound familiar.

24 MR. WEBSTER: Okay. So, are the individuals  
25 within those correctional facilities incarcerated?

1 MR. RIGGS: Within the correctional  
2 facilities, yes, they are incarcerated.

3 MR. WEBSTER: And the correctional  
4 facilities you identified, do they meet the  
5 environmental justice criteria?

6 MR. RIGGS: The answer is it depends what  
7 the deal is. And the census data itself, what we've  
8 got is no differentiation between the actual  
9 population and the incarcerated population, so we  
10 could use the census data to actually locate  
11 incarcerated populations, but we can't differentiate  
12 them from the general population outside those areas.

13 MR. WEBSTER: Can we pull up Entergy 258.

14 JUDGE McDADE: Let me just clarify  
15 something for myself. In a situation like Sing Sing  
16 where it is a census block in and of itself, you can  
17 do both, but in most instances it would be impossible.  
18 Correct?

19 MR. RIGGS: That's sort of true, Your  
20 Honor. What's going on is we can't identify the  
21 correctional facility by name with the census data. We  
22 can only verify that there is an incarcerated  
23 population there. And then we have to use some  
24 geography to identify the location and analyze the  
25 population to see if it's approximately the population

1 of the correctional facility.

2 JUDGE McDADE: Okay.

3 MR. RIGGS: I think I misspoke. I think --

4 I'm trying to recall from memory. I think you can

5 differentiate the -- no, I'm going to have to --

6 MR. WEBSTER: Let me refresh your memory,

7 if we pull up --

8 JUDGE McDADE: If I could, since I mucked

9 t this up, I want to at least clarify it in my own

10 mind before I move on. Sing Sing is a census block in

11 and of itself.

12 MR. RIGGS: That's correct. Well, that's

13 correct, if you look at the geography. It's not by

14 census -- it's not found solely through the census

15 information.

16 JUDGE McDADE: But all of the people in

17 that census block are resident at Sing Sing.

18 MR. RIGGS: I believe that's correct.

19 JUDGE McDADE: There's, whatever, 1,731

20 listed in Sing Sing, and 1,731 listed in the census

21 block information.

22 MR. RIGGS: Right, right. That's correct.

23 JUDGE McDADE: So, if the census block

24 information tells you that it's 89 percent minority,

25 you could interpret from that that since the census

1 block and Sing Sing are contiguous, that Sing Sing as  
2 an entity is 89 percent minority.

3 MR. RIGGS: Yes, Your Honor, in that  
4 specific case.

5 JUDGE McDADE: But in the other instances  
6 where you have a penal institution in the census block  
7 you can identify that there is a penal institution in  
8 the census block, and you can determine what the  
9 minority population is of the census block, but you  
10 can't relate directly one to the other.

11 MR. RIGGS: They're not necessarily  
12 related.

13 JUDGE McDADE: Okay. Mr. Webster.

14 MR. WEBSTER: Let's go to Entergy 258 at  
15 PDF page 43. I'm sorry, Your Honor, I thought this was  
16 going to be a quick question but it's a little more  
17 confusing than I anticipated. Give me 44, sorry. Next  
18 page. Okay. The second sentence of this at the top of  
19 the page there, could you read the second sentence?

20 MR. RIGGS: "The correctional institution  
21 subclassification includes prisons, federal detention  
22 centers, military disciplinary barracks, jails, local  
23 jails, and other confinement facilities, halfway  
24 houses, and other types of correctional institution."

25 MR. WEBSTER: Okay. So, am I correct in

1 saying then that from the census block data you can  
2 determine the existence of correctional institutions?

3 MR. RIGGS: Well, what we're describing in  
4 t this is it's a subdivision of block -- of group  
5 quarters. In the census data we've got housing units,  
6 and then we've got group quarters on the other hand.  
7 A further breakdown for group quarters we see  
8 institutionalized and non-institutionalized  
9 populations. And then they further break down those  
10 into other various subcategories which includes  
11 prisons, halfway houses, so on and so forth.

12 MR. WEBSTER: All right. Now let's go to  
13 page 45, answer 51. Can you read the first two  
14 sentences of answer 51?

15 MR. RIGGS: Yes. "I have confirmed that  
16 there are 67 block groups within the 50-mile region  
17 that contain census defined correctional institutions.  
18 Of those 57 census block groups exceed the NRC defined  
19 minority criteria as explained in Section 2622 and  
20 illustrated in Figures 2-22 and 2-23 of Indian Point  
21 ER."

22 MR. WEBSTER: Okay. Is that testimony  
23 reliable as you sit here today?

24 MR. RIGGS: Oh, yes, absolutely.

25 MR. WEBSTER: And did you obtain that



1 conclusion from the census data?

2 MR. RIGGS: I did.

3 MR. WEBSTER: Okay. So, can you regard the  
4 fact that these people are incarcerated as unique to  
5 them?

6 JUDGE McDADE: Rephrase. I don't understand  
7 the question.

8 MR. WEBSTER: Well, are there other people  
9 -- excluding these 67 block groups, 57 of which meet  
10 the criteria, are there other people within the 50  
11 miles that are incarcerated?

12 MR. RIGGS: Not based on the census data.

13 MR. WEBSTER: Okay. And if you know, is  
14 this issue discussed at all in the FSEIS?

15 MR. RIGGS: I don't know.

16 MR. WEBSTER: Okay. Let's go back to Mr.  
17 Rikhoff. Mr. Rikhoff, is the extent of these  
18 populations discussed in the FSEIS?

19 MR. RIKHOFF: No, it's not.

20 MR. WEBSTER: That's all I have, Your  
21 Honor. Thank you very much.

22 JUDGE McDADE: Mr. Turk.

23 MR. TURK: Thank you, Your Honor. Both  
24 myself and Ms. Ghosh have some questions for the  
25 witnesses. Ms. Ghosh will go first, Your Honor, and

1 we'll try to keep it brief. I would note, however,  
2 that it's about an hour and a half since the last  
3 break. What is your preference, Your Honor, do you  
4 want to take a quick break or should we just go  
5 forward?

6 JUDGE McDADE: Just go forward.

7 MR. TURK: Thank you.

8 MS. GHOSH: Mr. Rikhoff, early in your  
9 testimony you mentioned the findings in 10 CFR Part  
10 51, Table B1 but you didn't have the exhibit in front  
11 of you -- or the regulations in front of you. For  
12 clarification of the record, do you have it in front  
13 of you now?

14 MR. RIKHOFF: Yes, I do.

15 MS. GHOSH: Can you read the findings of 10  
16 CFR Part 51, Table B1?

17 MR. RIKHOFF: This has to do with the  
18 finding on severe accidents. "The probability weighted  
19 consequences of atmospheric releases fall out and onto  
20 open water" -- excuse me. This is a little small for  
21 my reading glasses. "Releases fall out onto open  
22 bodies of water, releases to groundwater and societal  
23 and economic impacts from severe accidents are small  
24 for all plants."

25 MS. GHOSH: Thank you. Mr. Rikhoff, are you

1 familiar with Clearwater Exhibit 51 that we were  
2 looking at earlier? Can we bring that up? Dave  
3 Matthews' presentation.

4 MR. RIKHOFF: Oh, Dave Matthews, yes. Yes,  
5 I am.

6 MS. GHOSH: The VC Summer proceeding, was  
7 that a license renewal proceeding?

8 MR. RIKHOFF: No, it was not.

9 MS. GHOSH: What kind of proceeding was it?

10 MR. RIKHOFF: It was for the construction  
11 of a new nuclear power plant.

12 MS. GHOSH: Are the impacts considered in  
13 new reactor proceedings -- how do those compare to  
14 those in license renewal?

15 MR. RIKHOFF: Well, the impacts for a new  
16 reactor would involve the construction as well as the  
17 operation of the nuclear power plant.

18 MS. GHOSH: And those are not considered in  
19 license renewal.

20 MR. RIKHOFF: Construction is not  
21 considered in license renewal.

22 MS. GHOSH: Thank you. Ms. Milligan, in  
23 your testimony earlier you mentioned that you spoke  
24 with Colonel Kirkpatrick, and you mentioned that you  
25 viewed the Sing Sing Emergency Plans. So, did you

1 actually see the emergency plans for Sing Sing?

2 MS. MILLIGAN: Yes, I did.

3 MS. GHOSH: And did you see the  
4 radiological emergency plans?

5 MS. MILLIGAN: Yes, I did.

6 MS. GHOSH: I know --

7 MR. WEBSTER: Your Honor, I'm going to  
8 object to the Staff putting in the contents of the  
9 emergency plan if that's their intention, because they  
10 never disclosed that. It's never been reviewed by --

11 JUDGE McDADE: Is that your intent?

12 MS. GHOSH: Not to put in the contents, but  
13 maybe some of the discussion with Colonel Kirkpatrick  
14 regarding potential impacts to prisoners at Sing Sing.

15 JUDGE McDADE: Okay. Well, the testimony  
16 has been that she has reviewed the plans, she has  
17 spoken with Colonel Kirkpatrick. You're now going to  
18 ask not about the content of the plan which is not in  
19 evidence but ask about the conversations.

20 MS. GHOSH: Yes. Ms. Milligan, did you have  
21 p-- when you spoke with Colonel Kirkpatrick, did you  
22 have any conversations regarding how New York State  
23 officials would respond to a severe accident?

24 MR. WEBSTER: Objection, that's going to  
25 discuss the plan.

1 JUDGE McDADE: I don't know if it is or  
2 not. The question is did you have the discussions, yes  
3 or no?

4 MS. MILLIGAN: Yes, I had those discussions  
5 with him.

6 MS. GHOSH: Did you -- in your conversation  
7 did you have any discussion regarding -- well, earlier  
8 Mr. Papa and Dr. Edelstein mentioned impacts, psycho  
9 social impacts and potential breakdown for social  
10 order. Was there any sort of discussion that you had  
11 with Colonel Kirkpatrick regarding those issues?

12 MS. MILLIGAN: Yes.

13 MS. GHOSH: Could you describe those?

14 MS. MILLIGAN: Colonel Kirkpatrick has been  
15 working in the correctional system in New York for a  
16 very long time, maybe 20 years plus or minus. We  
17 talked about his experiences in a variety of  
18 emergencies, and when there's been those sorts of  
19 emergencies he's explained that prisoners have become  
20 more cooperative rather than less cooperative because  
21 it's been in their interest to be more cooperative in  
22 order to be assisted in terms of evacuations. He  
23 referenced some prison literature that I was not  
24 familiar with -- prison studies.

25 MS. GHOSH: Thank you.

1 JUDGE McDADE: Is that all?

2 MS. GHOSH: That's all I have.

3 JUDGE McDADE: Mr. Turk.

4 MR. TURK: Thank you, Your Honor. Let me  
5 start with a question to Mr. Rikhoff. There was a  
6 question a moment ago about group quarters, and  
7 whether the FEIS specifically mentions group quarters.  
8 Did you consider the populations in group quarters in  
9 preparing the Environmental Justice section of the  
10 EIS?

11 MR. RIKHOFF: We considered all minority  
12 and low-income populations regardless of whether they  
13 were in an institution or out of an institution, group  
14 quarters in other words.

15 MR. TURK: So, I understand you to mean  
16 that populations within group quarters were included  
17 within your analysis.

18 MR. RIKHOFF: That's correct.

19 MR. TURK: Also, you spoke earlier today  
20 about license renewal and there's a section of your  
21 discussion in the EIS in which you said that there are  
22 no increased or additional impacts for license renewal  
23 beyond those of an operating plant. Could you explain  
24 to what extent did you consider the impacts of an  
25 operating plant in doing your analysis?

1 MR. RIKHOFF: We looked at all the other  
2 resource areas to determine what effects the continued  
3 operation of the nuclear power plant would have on  
4 clean air, clean water, human health effects, and we  
5 found that there were no new or added -- there would  
6 be no new or added effects from license renewal.

7 MR. TURK: Did you consider what are the  
8 impacts of continued operation of an existing plant?

9 MR. RIKHOFF: Yes.

10 MR. TURK: And how did that factor into  
11 your analysis?

12 MR. RIKHOFF: It resulted in a conclusion  
13 that there would be no disproportionately higher  
14 adverse effects on minority and low-income population  
15 from the continued operation of the nuclear power  
16 plant in the extended period of operation.

17 JUDGE McDADE: Disproportionate to the?

18 MR. RIKHOFF: The general population,  
19 sorry.

20 JUDGE McDADE: Okay. That was my question.  
21 Disproportionate in the period of extended operation  
22 to the general population during the period of  
23 extended operation?

24 MR. RIKHOFF: That's correct, Your Honor.

25 MR. TURK: Well, let me see if I can break

1 that down for a second. If you were to think only  
2 about the existing nuclear power plants, Indian Point  
3 Units 2 and 3, do you believe that those plants have  
4 a disproportionate high adverse impact on minority or  
5 low-income populations as currently operating plants?

6 MR. RIKHOFF: I did not make that  
7 assessment of current operations, only in the license  
8 renewal term. But I don't believe so.

9 MR. TURK: Ms. Milligan, I'd like to ask  
10 you a few questions about emergency preparedness. How  
11 long have you been doing emergency preparedness?

12 MS. MILLIGAN: 25, 27 years, but I was a  
13 baby when I started.

14 JUDGE WARDWELL: You're under oath.

15 (Laughter.)

16 MS. MILLIGAN: A teenager.

17 MR. TURK: Could you identify the  
18 regulations under which the NRC imposes regulatory  
19 requirements on nuclear power plants for emergency  
20 preparedness?

21 MS. MILLIGAN: Certainly, it's 10 CFR 50.47  
22 and Appendix E.

23 MR. TURK: Appendix E to 10 CFR Part 50.

24 MS. MILLIGAN: Yes, that's correct, sorry.

25 MR. TURK: Indian Point Units 2 and 3 are



1 operating nuclear facilities. Correct?

2 MS. MILLIGAN: Yes.

3 MR. TURK: And as such are they subject to  
4 the requirements of those regulations?

5 MS. MILLIGAN: Yes.

6 MR. TURK: Are the emergency preparedness  
7 plans, both on site and off site for Indian Point  
8 Units 2 and 3 subject to review by the NRC and FEMA?

9 MS. MILLIGAN: Yes.

10 MR. TURK: And are exercises conducted on  
11 a regular basis by the NRC and FEMA of those plans?

12 MS. MILLIGAN: Yes, that's correct.

13 MR. TURK: And I assume that because the  
14 plants are continuing to operate that the emergency  
15 preparedness plans have been found to be adequate. Is  
16 that correct?

17 MS. MILLIGAN: Yes, that's correct.

18 MR. TURK: This question goes to Mr.  
19 Slobodien. There's been some testimony today about  
20 evacuation times and the limited nature of the roads  
21 in the area of Indian Point. Do you know whether  
22 evacuation time estimates are considered as part of  
23 Indian Point's emergency preparedness plans?

24 MR. SLOBODIEN: They are a part of the  
25 emergency plan, yes.

1 MR. TURK: And, in fact, 10 CFR Part 50,  
2 Appendix E requires evacuation time estimates for the  
3 emergency preparedness zone, the 10-mile plume  
4 exposure pathway, EPZ around Indian Point. Correct?

5 MR. SLOBODIEN: That is correct.

6 MR. TURK: So, is it fair to say that FEMA  
7 has considered the adequacy of the roads and the  
8 evacuation time estimates that Entergy has prepared?

9 MR. SLOBODIEN: Yes, that is fair to say.

10 MR. TURK: Also, there's been some  
11 testimony about nursing homes and special needs  
12 populations. Do the emergency plans for off site  
13 populations include provisions for vehicles, both  
14 buses and ambulances, and other special vehicles for  
15 the evacuation of persons from institutions?

16 MR. SLOBODIEN: Yes, they do.

17 MR. TURK: And are there Letters of  
18 Agreement required and provided as part of those  
19 plans?

20 MR. SLOBODIEN: Yes, the counties have  
21 Letters of Agreement with various providers for those  
22 services.

23 MR. TURK: And that's in accordance with  
24 FEMA requirements?

25 MR. SLOBODIEN: Yes.

1 MR. TURK: And FEMA has found the Letters  
2 of Agreement for such vehicles to be adequate?

3 MR. SLOBODIEN: Yes.

4 MR. TURK: And this is something FEMA looks  
5 at on a regular basis, is it not true?

6 MR. SLOBODIEN: Yes, that is correct.

7 MR. TURK: Also, there was some discussion,  
8 I believe this was from Mr. Simms about patients in  
9 assisted care facilities and perhaps nursing homes who  
10 need medications, and who might be unable to obtain  
11 medications in the event of an evacuation. Did you  
12 hear that testimony?

13 MR. SLOBODIEN: I did.

14 MR. TURK: Are there provisions in the  
15 emergency preparedness plans for persons in such  
16 institutions to be evacuated safely?

17 MR. SLOBODIEN: Yes, there are provisions  
18 to evacuate them safely.

19 MR. TURK: And how would they obtain  
20 medications in the event of an evacuation?

21 MR. SLOBODIEN: The institution provides  
22 medications, and they are also administered at  
23 reception centers, if necessary.

24 MR. TURK: And do the institutions also  
25 assure that there will be a nurse or other caretaker,

1 care provider available to assist in the  
2 transportation of persons who need assistance?

3 MR. SLOBODIEN: Generally they do in  
4 accordance with their specific plans.

5 MR. TURK: And those would be the plans of  
6 the institutions.

7 MR. SLOBODIEN: Yes, the plans of the  
8 institutions.

9 MR. TURK: Ms. Milligan, without going into  
10 the details of your conversation with Colonel  
11 Kirkpatrick, and certainly without referring to the  
12 plan itself, did Colonel Kirkpatrick express to you an  
13 opinion as to whether they could evacuate prisoners  
14 safely within an appropriate time in an event  
15 evacuation was decided upon?

16 MS. MILLIGAN: Yes.

17 MR. TURK: And what was his statement to  
18 you in that regard?

19 MS. MILLIGAN: He had absolute confidence  
20 that they would be able to safely evacuate all the  
21 prisoners at Sing Sing including special needs  
22 populations at Sing Sing in a very timely fashion.

23 MR. TURK: I have nothing further, Your  
24 Honor. Thank you.

25 JUDGE McDADE: Okay, we are in recess until

1 tomorrow at 9:00. To the witnesses, thank you very  
2 much. We appreciate your being here and the testimony  
3 you've given. It's very helpful to us.

4 Are there any administrative matters that  
5 need to be taken up this evening before we break until  
6 tomorrow? Mr. Turk?

7 MR. TURK: No, Your Honor.

8 JUDGE McDADE: From Clearwater?

9 MR. WEBSTER: No, Your Honor.

10 JUDGE McDADE: Riverkeeper?

11 MS. BRANCATO: No, Your Honor.

12 JUDGE McDADE: New York?

13 MR. SIPOS: No, Your Honor.

14 JUDGE McDADE: Entergy?

15 MR. TENPAS: No, Your Honor.

16 JUDGE McDADE: We are in recess. Thank you.

17 (Whereupon, the proceedings went off the  
18 record at 6:51 p.m.)  
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CERTIFICATE

This is to certify that the attached proceedings  
before the United States Nuclear Regulatory  
Commission

Proceeding: Entergy Nuclear Operations, Inc.  
Indian Point Units 2 and 3

Docket Number: 50-247-LR and 50-286-LR

ASLBP Number: 07-858-03-LR-BD01

Location: Tarrytown, New York

were held as herein appears, and that this is the  
original transcript thereof for the file of the  
United States Nuclear Regulatory Commission taken  
and thereafter reduced to typewriting under my  
direction and that said transcript is a true and  
accurate record of the proceedings.

*Neal R. Gross*

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Official Reporter  
Neal R. Gross & Co., Inc.

**NEAL R. GROSS**

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