

ORIGINAL

# UNITED STATES NUCLEAR REGULATORY COMMISSION

In the matter of: )

LONG ISLAND LIGHTING COMPANY )

(SHOREHAM NUCLEAR POWER STATION,  
UNIT 1) )

) Docket Number 50-322-OL-3

Pages: 1 through 98

Place: Bethesda, Maryland

Date: September 14, 1988

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UNITED STATES NUCLEAR REGULATORY COMMISSION  
 ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the matter of: )  
 ) Docket No. 50-322-OL-3  
 LONG ISLAND LIGHTING COMPANY )  
 )  
 (SHOREHAM NUCLEAR POWER STATION, )  
 UNIT 1) )  
 )

Wednesday,  
 September 14, 1988

Public Hearing Room  
 4350 East West Highway  
 Bethesda, Maryland

The above-entitled matter came on for  
 hearing, pursuant to notice, at 2:00 p.m.

BEFORE: HONORABLE THOMAS S. MOORE, ALJ  
 Atomic Safety and Licensing Board Panel  
 U.S. Nuclear Regulatory Commission  
 Washington, D.C.

HONORABLE ALAN S. ROSENTHAL, ALJ  
 Atomic Safety and Licensing Board Panel  
 U.S. Nuclear Regulatory Commission  
 Washington, D.C.

HONORABLE HOWARD A. WILBER, ALJ  
 Atomic Safety and Licensing Board Panel  
 U.S. Nuclear Regulatory Commission  
 Washington, D.C.

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

1  
2 JUDGE MOORE: The Appeal Board is hearing argument  
3 this afternoon in the case of LILCO v. Town of Southampton  
4 from the Licensing Board's May 9, 1988 partial initial  
5 decision concerning the suitability of LILCO's reception  
6 centers that will be used by the public in the event of a  
7 radiological emergency.

8 The argument will be governed by the terms of our  
9 previous order of August 12th. As stated therein each party  
10 or each side rather, will be allowed forty minutes for  
11 argument.

12 We'll begin by having Counsel introduce themselves  
13 for the reporter. We'll start with the Staff.

14 MR. BACHMANN: My name is Richard G. Bachmann.  
15 I'm Counsel to NRC Staff. With me at the table is Mr. Edwin  
16 J. Reis also of the Staff.

17 MR. CHRISTMAN: My name is Jim Christman. I'm  
18 representing the applicant, Long Island Lighting Company.  
19 Also at the table with me is Mary Joe Leugers, also of my  
20 law firm.

21 MR. CASE: I'm David Case. The law firm of  
22 Kirkpatrick & Lockhart, representing Suffolk County and  
23 arguing on behalf of the Government. Also representing  
24 Suffolk County is Mr. Chris McMurray of Kirkpatrick &  
25 Lockhart.

1 MR. ZAHNLEUTER: I'm Richard J. Zahnleuter. I  
2 represent the State of New York and Governor Cromwell. And  
3 Mr. Case will be presenting oral argument on behalf of the  
4 State of New York today.

5 JUDGE MURRAY: The appellants may begin.

6 MR. CASE: Thank you.

7 Initially, let me indicate that I'd like to  
8 reserve twelve minutes for rebuttal of the forty minutes  
9 allotted to the Government.

10 The Government's brief outlines four issues to be  
11 decided by the Board. It is my intention to focus on two of  
12 those issues; 1) the Board's planning basis decision and how  
13 that is in error and 2) how the Board erred in entering  
14 findings without any FEMA findings being in the record.

15 Prior to reaching those two critical issues before  
16 the Board, there is one issue on one factor which overrides  
17 the consideration of even those two issues and that is, the  
18 recent decision in the case of Town of Hempstead v. LILCO.

19 Now the holding of this case is that Belmore  
20 facility uses a reception center on the LILCO's plant is a  
21 facility which, when used as a reception center, violates  
22 the local zoning law. The effect of that decision is to  
23 prohibit the use of the Belmore facility in the LILCO plant  
24 as a reception center.

25 I intend to briefly discuss here why it is that

1 the Board should consider this decision now, in making it's  
2 review of the OL3 reception center decision and why that New  
3 York Supreme Court decision is dispositive of this case.

4 Now, there's no need has been implied to reopen  
5 the record in this case in regard to that decision. In an  
6 appellate tribunal, like this tribunal is, must apply them  
7 all that exists at the time it reviews the lower tribunal's  
8 decision. And the law which presently exists at this time,  
9 is that decision of the New York State Supreme Court that in  
10 fact, LILCO's use of the Belmore facility as a facility  
11 center violates the local zoning laws.

12 JUDGE ROSENTHAL: Mr. Case, two questions. Number  
13 one, has the Court entered an order on it's decision yet?

14 MR. CASE: The Court has not, Mr. Rosenthal.  
15 However, we believe that the effect of the opinion is clear  
16 and indeed the proposed order that LILCO submitted -- right  
17 now, there order's been submitted by the Town of Hempstead  
18 and LILCO and submitted it's own proposed order. The order  
19 which LILCO submitted in fact, indicates that the use of  
20 Belmore facility as a reception center is prohibited.

21 So, at a the very minimum, that order will be  
22 entered.

23 JUDGE ROSENTHAL: All right, second question. Am  
24 I correct in my understanding that there is no pending  
25 litigation respecting the availability of either of the

1 other two reception centers?

2 MR. CASE: That is correct. The record indicates  
3 and the partial initial decision indicates outstanding two  
4 determinations by the other effected localities that there's  
5 a violation of zoning law, but there's been no suit filed as  
6 of today.

7 As I indicated, we don't believe that there's any  
8 need for any motion to reopen the record. This Board must  
9 give that case full faith and credit and need present no  
10 evidence as to the decision because it's a recorded  
11 decision.

12 The Board must consider the case of Town of  
13 Hempstead v. LILCO just as it would consider the case of  
14 Marbury v. Madison or Brown v. Board of Education. It's  
15 applicable in this proceeding without any motion to reopen  
16 and we believe the clear effect of this decision is to  
17 require that the Board reverse -- remand the reception  
18 center pleading.

19 JUDGE ROSENTHAL: What is the capacity of the  
20 other two reception centers collective; for monitoring  
21 purposes?

22 MR. CASE: We believe that the record would  
23 indicate, and opposing Counsel have argued, that the  
24 capacity of those two receptions centers would handle a  
25 thirty percent evaluation.

1                   However, it's the Government's position that  
2 that's simply not determinative. What we have here Mr.  
3 Rosenthal and other members of the Board, a reception center  
4 plan integrated between three reception centers, was in  
5 fact, submitted by LILCO; the parties litigated concerned  
6 those three reception centers, and the Board decided on the  
7 three reception center plan as integrated.

8                   JUDGE ROSENTHAL: Well, even if it cited on that  
9 basis, the Board also determined, did it not, that twenty  
10 percent was a reasonable figure for the planning estimate  
11 and if that finding is upheld, I realize that the Government  
12 is challenging it --

13                   MR. CASE: That's correct.

14                   JUDGE ROSENTHAL: -- if that finding is upheld,  
15 would it not necessarily follow that the elimination of the  
16 Belmore facility would be in the vernacular and no never  
17 mind.

18                   In other words, doesn't the significance of the  
19 elimination of Belmore hinge entirely upon the viability of  
20 the Licensing Board's determination on the twenty percent  
21 planning estimate?

22                   MR. CASE: We don't believe it does.

23                   JUDGE ROSENTHAL: All right, well explain why not?

24                   MR. CASE: I'd be glad to.

25                   What's happened is there's a void in the record;



1 where there was a three reception center plan, there's now  
2 two. There's a group of people, roughly one-third, who have  
3 no where to go. Where LILCO determines to send them when  
4 they fill this void in the record; whether it be to split  
5 them up between the other two reception centers; whether it  
6 be send them to some third facility that we have information  
7 about, we don't know.

8 So, even assuming and this is all speculation,  
9 that LILCO does in fact, decided to split it this  
10 outstanding group of evacuees and send them to the other two  
11 reception centers, we don't know how that will impact  
12 traffic. We don't know how that will impact the capacity  
13 and facilities.

14 For instance, if many are sent to Roslyn, a small  
15 facility, it may be and this is LILCO's burden here to show,  
16 that they can still meet the reasonable assurance findings.

17 So, even assuming and we wouldn't concede for a  
18 minute that in fact a twenty percent decision is accurate,  
19 even in that situation, we have a void in the record here.  
20 We need to understand how LILCO intends to fill that void in  
21 terms of where these people are going to go; how that will  
22 impact traffic, how that will impact whether the reception  
23 centers they're sent to, and it may not be those two, how  
24 they can handle those individuals.

25 JUDGE ROSENTHAL: So, you are suggesting that if

1 the twenty percent figure were to be upheld and again, I  
2 appreciate the fact that the Government's attached that,  
3 necessarily there would have to be a remand to the Licensing  
4 Board to determine what impact upon traffic, etc. would flow  
5 from the availability of the two instead of as previously,  
6 the three reception centers.

7 Is that -- that's what you're saying?

8 MR. CASE: That's exactly right. There's a void  
9 now. The Licensing Board must consider what's going to  
10 happen to this one-third of the potential evacuees, where  
11 they're going, what the effects of that will be in terms of  
12 traffic, in terms of capacity at the reception centers.  
13 There's a whole host of issues that may be considered  
14 depending on what LILCO does in their planning with these  
15 group of individuals who at present, have nowhere to go for  
16 a reception center.

17 JUDGE ROSENTHAL: Turning if we might to the  
18 twenty percent figure, I'm interested in knowing whether the  
19 Governments accept the prior estimate that there would be  
20 approximately twenty percent of the population that would  
21 require shelter?

22 If I recall correctly, there was -- previously  
23 there was that estimate which I think had the American Red  
24 Cross's endorsement. Am I right about that?

25 MR. CASE: In terms of pure sheltering --

1 JUDGE ROSENTHAL: Yes, I'm talking about pure  
2 sheltering that -- well, obviously the people that would  
3 obtain sheltering would also be monitored and if necessary,  
4 supposedly contaminated.

5 MR. CASE: I understand.

6 JUDGE ROSENTHAL: And if you accept that -- I want  
7 to know if you accept that twenty percent figure?

8 MR. CASE: I understand. I will say that the  
9 Government believes that twenty percent was a sheltering  
10 number. Seemed to have historical backing that is adequate,  
11 but to use that in any sense as a basis for any sort of  
12 decision as the number of people who arrive for monitoring,  
13 the Government's opinion and we believe this Board  
14 previously held, is simply mixing apples with oranges.

15 It's attempting to figure out how many oranges are  
16 going to grow by counting how many apples that were in past  
17 seasons.

18 JUDGE WILBER: The minimum would be the twenty  
19 percent though. You're not arguing that, are you?

20 MR. CASE: Oh, the minimum would be twenty  
21 percent. That would be the Government's position.

22 JUDGE WILBER: So, they aren't really apples and  
23 oranges?

24 MR. CASE: There may be some overlap and in terms  
25 of comparing -- trying to forget the number of monitoring

1 based on the number of shelters. In that sense, you're  
2 comparing apples with oranges, but yes, there may be some  
3 overlap in terms of people who go for sheltering also  
4 require monitoring and would in fact, monitor.

5 But, we would argue that twenty percent would be  
6 the minimum number that would have to be accounted for in  
7 considering the number who would come to the Reception  
8 Centers.

9 JUDGE ROSENTHAL: I have one other preliminary  
10 question. I'm going to ask this also of Mr. Christman.

11 In the applicant's brief at page 12, footnote 3  
12 refers to a LILCO commitment to more than double the twenty  
13 percent planning basis to some 46.6 percent.

14 Now, I've been unable to find in the record where  
15 that commitment is. It seems to me a very significant one,  
16 if in fact, it was made.

17 It is your understanding that there was that kind  
18 of commitment prior to the applicant and if so, why are we  
19 talking about a twenty percent planning standard anyway, or  
20 estimate?

21 MR. CASE: Well, I didn't understand that to be a  
22 commitment except in, there's testimony in the record and  
23 there was testimony concerning the ability of LILCO to  
24 expand by calling on other resources over time to bring in  
25 INPO monitors, to bring in people from Brookhaven and set up

1 more monitoring facilities, which they argued reach a  
2 greater percentage of the people who arrive there.

3 But, the reason we're talking about twenty percent  
4 is, from the beginning, that has been the number that has  
5 been the focus of this litigation because LILCO has relied  
6 on that. FEMA advocated that through the Krimm memorandum.  
7 The Staff advocated it and the Board accepted twenty  
8 percent, so that's why the focus --

9 JUDGE ROSENTHAL: No, I understand that. I don't  
10 to be making a newer argument for you --

11 MR. CASE: Right.

12 JUDGE ROSENTHAL: -- but I would have thought that  
13 if LILCO itself represents, that is has committed itself to  
14 46.6 percent planning basis, that you'd be in telling us  
15 that the Belmore facility's elimination is extraordinarily  
16 significant and that we're past the twenty percent planning  
17 estimate to begin with.

18 MR. CASE: It's the position -- the intervenors  
19 and I always appreciate any help in argument --

20 JUDGE ROSENTHAL: I saw this. I assume you read  
21 that same footnote and I was just wondering what your  
22 reaction was.

23 MR. CASE: It's the position of the Intervenor's  
24 and Government's that, no matter was the planning basis is,  
25 be it twenty percent, thirty percent, forty percent, the

1 fact that we now have one the facilities that was to serve  
2 the public, serve the evacuees as been eliminated as a  
3 possibility. We don't know what's going to happen to the  
4 people who would have gone there. Where they're going to  
5 go. How they're going to get there. No matter what the  
6 planning basis is, there's a void in the record and this has  
7 to be remanded for the Licensing Board to take evidence.

8 JUDGE ROSENTHAL: Well, now with respect to the  
9 three facilities that were in the picture when the Licensing  
10 Board rendered it's decision, the Licensing Board really  
11 have precise information as to who would go to Belmore and  
12 who would go the second facility and who would go the third  
13 one. I mean you talk as if this was all really determined  
14 with the three facilities and now it's all up in the air as  
15 to traffic patterns and who goes where, since there's only  
16 two facilities.

17 MR. CASE: Yes, sir. As part of the LILCO plan,  
18 it's divided up into zones and certain zones would be  
19 directed to report to certain reception centers and in fact,  
20 by eliminating one of the reception centers, you have to  
21 know what's going to happen to the people in these zones  
22 that were otherwise going to Belmore.

23 That's what we can only speculate about until  
24 there's a plan submitted, which addresses that issue. What  
25 we're talking about in front of this Board are a two

1 reception center facility, is simply not the facility that  
2 was litigated in front of the Licensing Board in this case,  
3 which was a three reception center plan and that's why we  
4 believe that no matter what the planning basis is, this case  
5 must be remanded.

6 JUDGE WILBER: Does this mean that you say  
7 certain sectors were assigned to Belmore and sectors  
8 assigned to the other reception centers, then in the event  
9 of an accident that encompassed only some of those sectors,  
10 they would only activate one of these centers. Is this what  
11 you're saying?

12 MR. CASE: I don't think that question ever came  
13 up in examination on the plan. The way the plan was set up  
14 was that --

15 JUDGE WILBER: But, you're telling me, Sectors A,  
16 B, and C are assigned to Belmore and --

17 MR. CASE: It's conceivable that they would direct  
18 certain people from certain sectors. If you add to the  
19 impact in only one sector, that slice of the sector would be  
20 directed simply to go to Hicksville or go to Belmore or go  
21 Roslyn, depending -- obviously depending --

22 JUDGE WILBER: Can you tell me where that is in  
23 the record?

24 MR. CASE: I don't know whether that is in the  
25 record. I don't think we ever addressed that question. If

1 there was an accident which only gave a certain slice of the  
2 EPZ; whether people would be directed to certain reception  
3 centers.

4 As the plan stands now, the population is divided  
5 into the reception centers, and the traffic patterns if you  
6 analyze, given that certain people from certain parts of the  
7 EPZ will go to certain facilities.

8 JUDGE ROSENTHAL: Turning to the liability of the  
9 twenty percent estimate, that does derived some support does  
10 it not, from the Krimm memorandum?

11 MR. CASE: Well, we don't believe that the Krimm  
12 memorandum provides any support for that.

13 JUDGE ROSENTHAL: Essentially, the Krimm  
14 memorandum was based on sheltering data. The FEMA testimony  
15 was to that effect and the Board acknowledged that.

16 In it's opinion, the Board said, we recognize that  
17 this is based on sheltering data, however we believe it's  
18 -- given the best judgment of the professionals, it's all  
19 right. It can form the basis for a defensible finding here.

20 JUDGE ROSENTHAL: Aren't FEMA the experts in this  
21 area? Shouldn't there be considerable deference given to  
22 it's conclusions as to given a particular emergency; how  
23 many people are likely to seek sheltering or monitoring?

24 MR. CASE: We don't believe there should be  
25 deference given to FEMA when their conclusions are based on



1 data that this Board previously found was simply not  
2 relevant to the question and the fact that FEMA took  
3 irrelevant data and then in some, unknown way, we have no  
4 idea of the rigor of how they did it -- the seat of the  
5 pants, a fudge factor adjustment here -- it took a twenty  
6 percent basis and fudged it up to thirty percent.

7 That gives no indication -- there's no rigor to  
8 that as to why in the world that would in any way, be a  
9 valid indication of the number of people who would show up  
10 for monitoring?

11 JUDGE ROSENTHAL: Did Krimm testify?

12 MR. CASE: Mr. Krimm did not testify. One of the  
13 points we made in our proposed findings of fact, was that  
14 Mr. Krimm did not testify. No one who was involved directly  
15 in the preparation of the Krimm memorandum, did testify.

16 No one who was involved directly in the  
17 preparation of the planning standard, J-12 testified.

18 JUDGE ROSENTHAL: Now, the Krimm memorandum was  
19 introduced into evidence?

20 MR. CASE: Yes sir.

21 JUDGE ROSENTHAL: And was there any endeavor made  
22 by the Government's to assist that he be brought into Court  
23 so to speak, and subjected to cross-examination on these  
24 conclusions that he set forth in his memorandum.

25 MR. CASE: The Government's did not attempt to

1 subpoena Mr. Grimm or we feel there's an adverse inference  
2 to the other side that should be drawn in this case; that  
3 they did not call him, the proponent here. Certainly within  
4 the powers of FEMA to bring him before the Court and  
5 testify. This was not done.

6 Additionally, in our estimation no plan -- whether  
7 Mr. Krimm was up there or not, it simply can't or the number  
8 can't be defined. It's based on sheltering data.

9 The Board recognized that. Everyone's recognized  
10 that, and sheltering data as this Board and the Licensing  
11 Board previously indicates, simply is --

12 JUDGE ROSENTHAL: Well, I think the response to  
13 that was that at the time of our prior decision, we didn't  
14 have before us the factual record, including the FEMA and  
15 Staff testimony that has now been complied.

16 Moreover, since the applicant -- we didn't have  
17 before us the Staff and FEMA's explanation that the twenty  
18 percent number. In other words, the arguments being  
19 advanced that the situation at this juncture is quite  
20 different from that when this Board last spoke.

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1 MR. CASE: I think, in fact, what is the truth is,  
2 the Board had the exact same kind of evidence before when it  
3 spoke previously as it is here now. I quote from the ALAB  
4 855 Decision. The 32,000 figure, which was 20 percent,  
5 which was what they advocated at the last hearing before  
6 this Board concerning planning basis, was premised on a  
7 study that showed that roughly 10 to 20 percent of any  
8 population requires sheltering in the event of a disaster.

9 And that's exactly what the Krimm memorandum is  
10 based on, is the number of people who require sheltering in  
11 the disaster. The evidence is the same before the Board.  
12 The Krimm memorandum, based on the same evidence, this Board  
13 previously rejected, is not speaking to the question of how  
14 many will show up for monitoring.

15 There is simply no logical nexus between  
16 sheltering, historical sheltering data, and a calculation of  
17 who will show up for monitoring at the three reception  
18 sites.

19 JUDGE MOORE: You just used the figure 20 percent  
20 in reference to the applicant's position in the hearing  
21 below the remand hearing.

22 In your brief you used the figure 30 percent as  
23 being the figure the applicant uses -- started out, that  
24 hearing with. Is that an error in your brief?

25 MR. CASE: No, the Krimm memorandum is 20 percent.

1 LILCO has indicated they have met and planned the monitor,  
2 or able to monitor 30 percent of the EPZ, and therefore,  
3 satisfy any sort of planning base criterion because they've  
4 taken the 20 percent from the Krimm memorandum, and added  
5 the ten percent -- or added 50 percent.

6 JUDGE MOORE: But capability is different from the  
7 bottom line figure they contend is the requirement, which is  
8 20 percent.

9 MR. CASE: Adequate. Exactly.

10 JUDGE MOORE: So that's not saying that the  
11 applicant is contending the requirement is 30 percent?

12 MR. CASE: Well, the issue is, what is a proper  
13 planning basis? What should intervenor -- what should the  
14 applicant -- how many people should they expect to show up  
15 at the reception centers; and sometimes capacity and a  
16 planning basis get confused, but the applicants as we  
17 understand it always advocated the Krimm memorandum as being  
18 the accurate statement of a proper plan basis, which was 20  
19 percent.

20 JUDGE MOORE: Did the applicant ever attempt to  
21 explain why in 1984 its witnesses testified that sheltering  
22 and sheltering alone the number was 20 percent, and how it  
23 can adopt the position in the hearing below that the Krimm  
24 memorandum for shelter and plus monitoring was 20 percent?

25 MR. CASE: Our point has been all along that the

1 planning basis simply is inadequate; that there's no showing  
2 here, and we have made the arguments many times in front of  
3 the licensing board both in oral argument and in our  
4 findings that the way the planning basis is calculated in  
5 this case is simply inadequate. It's based on sheltering  
6 data. That's the bedrock of the planning basis that --

7 JUDGE ROSENTHAL: How do you go about coming up  
8 with an informed estimate of the number of people who  
9 require monitoring? I suppose that the figure is somewhere  
10 between 1 and the total number of people that are in the EPZ  
11 at the time of the accident.

12 Now, this is an estimate. Clearly, unless the  
13 resort is to a ouija board, there must be some mechanism for  
14 making this kind of judgment.

15 Now, let's say that you don't use the sheltering  
16 estimate, and maybe that's right. But what do you use?

17 MR. CASE: Well, let me start out by indicating  
18 one thing: the key question is not necessarily how many  
19 people will require monitoring -- the key question is how  
20 many people must you plan for to arrive at the reception  
21 centers?

22 Keeping that in mind, of course, it's always fun  
23 to criticize and never come up with your own ideas, but we  
24 always enjoy putting the burden where it belongs, on LILCO.

25 But, if pressed, I would indicate the way you

1 would start -- and this would only be the initial step --  
2 would be to start out with an analysis similar to which was  
3 done by Mr. Hulman of the staff here, to attempt to find out  
4 in an accident how many people with footprint analysis would  
5 require monitoring? That's the first step.

6 Now, we obviously made criticism of the way Mr.  
7 Hulman proceeded in terms of his analysis not taking in to  
8 account certain factors; not being conservative enough; but  
9 in an analysis like that would be the start -- on top of the  
10 number of people who would require monitoring you would have  
11 to make an analysis of the number of people both within and  
12 without the EPZ who you would expect would arrive for  
13 monitoring at the reception centers if there was a director  
14 to go for monitoring. And that would have to be added on  
15 top of --

16 JUDGE ROSENTHAL: You're differentiating between  
17 the people who actually need it and the people who would  
18 turn up? I don't quite --

19 MR. CASE: Yes sir.

20 JUDGE WILBER: -- is this the shadow effect you're  
21 talking about?

22 MR. CASE: It's a monitoring shadow effect. We  
23 believe that you have to account for that and you have to  
24 account for it -- and it has rigor as a possible fact.

25 JUDGE WILBER: Could you tell me the fundamental

1 difference between a "monitoring shadow effect" and the  
2 "evacuation shadowing effect?" Don't they both rely on fear  
3 or lack of information?

4 MR. CASE: Well, fear and, yes, either confusing  
5 or lag. The motives are the same. They flow from the same  
6 sources, but obviously the phenomena are the same. If you  
7 were in an evacuation and no monitoring -- there's going to  
8 be no monitoring shadow, but monitoring shadow arises only  
9 if there's an order for monitoring for people who report for  
10 monitoring.

11 JUDGE WILBER: I understand, but the underlying  
12 monitoring --

13 MR. CASE: Yes, I mean, all parties have agreed, I  
14 think, in this respect; they flow from the same basic  
15 psychological needs and urges.

16 JUDGE ROSENTHAL: Well now, how do you estimate  
17 this?

18 MR. CASE: Well, it would be difficult, but we  
19 believe that there's a science -- in the sociological  
20 literature there should be a way and would be a way, to do  
21 it. People in this city in particular many places devote  
22 their careers and bet their careers on public behavior in  
23 the future: who will vote; what will they vote for. Things  
24 like that.

25 Lawyers bet cases on sociological analyses of how

1 certain jurors will react to certain situations in the  
2 future.

3 JUDGE ROSENTHAL: Didn't Mr. Krimm do that in this  
4 case? You're dissatisfied with his result and perhaps with  
5 his methodology, but wasn't that basically what he was  
6 doing, and why isn't his guess as good as anybody else's?

7 So I would say that this is more than simply an  
8 imprecise science. I would say it's no science at all.

9 MR. CASE: Whether it's imprecise or no science,  
10 is what Mr. Krimm did was not what I just described; who  
11 made the regular analysis of the number of people who would  
12 require monitoring; and add on to that the number of people  
13 who would require monitoring and add onto that the number of  
14 people who would go for monitoring, both from within and  
15 without the EPZ.

16 Basically, he'd talk a data base sheltering data,  
17 which is bordered only rejected and put a fudge factor on  
18 it. And there's no basis for that. We see no studies; we  
19 see no rationale, for why he did it, and the FEMA witnesses  
20 candidly describe it as a "fudge factor." It's 30 percent.

21 JUDGE ROSENTHAL: Did you have witnesses of your  
22 own who came in and said in effect that Krimm is out to  
23 lunch; that this is not the way in which one can arrive at a  
24 reasonable estimate of people who would turn up for  
25 monitoring?



1 MR. CASE: Yes sir. The State of New York's  
2 witnesses actually were the first in this to take issue with  
3 the Krimm Memorandum, in the sense that these were New York  
4 emergency planners from the Radiological Preparedness Group  
5 who indicated in their professional judgment you should plan  
6 for 100 percent of the EPZ as a prudential matter, and took  
7 direct issue with what was at issue in the Krimm memorandum.

8 JUDGE ROSENTHAL: And that 100 percent isn't an  
9 estimate. It's just a personal view as to what should be  
10 done presumably out of an abundance of caution. But I'm  
11 getting at whether there were witnesses in the matter of  
12 what is a reasonable estimate as to the number of people  
13 that are going to turn up for monitoring -- because  
14 obviously 100 percent or not -- I imagine you would agree on  
15 that. It would be agreeable.

16 MR. CASE: Right. But what is the proper planning  
17 basis and the REPG people indicated proper planning basis  
18 was 100 percent. There were also witnesses put on by  
19 Suffolk County who attempted to describe the magnitude of  
20 the monitoring shadow based on focus groups and obviously  
21 based on the results of surveys. Now, this was rejected by  
22 the Board, but we believe that analyses like that have to go  
23 into the question of how much -- how many people -- do you  
24 plan for to show up at the reception centers?

25 Let me -- my time is almost up -- if not up. Just

1 briefly conclude. We view that finding on the 20 percent  
2 planning basis is erroneous for the reasons we've talked  
3 about right here. In addition, it applied to the wrong  
4 standard: it applied to a defensibility standard, not a  
5 preponderance of the evidence standard. They're different  
6 under the law. And it's not a mere matter of semantic  
7 quibbling.

8 We also believe that, in fact, there are no FEMA  
9 findings; no testimony, that can be construed as FEMA  
10 findings; and that to enter in this case findings without  
11 any FEMA review of this matter was simply an error under the  
12 Commission's clear regulations.

13 MR. CHRISTMAN: Judge Moore, Members of the Board.  
14 I am Jim Christman. We split the time up with the staff and  
15 I get 25 minutes; the staff gets the rest, as I understand  
16 it.

17 Let me talk first about something that's not  
18 before you, which is the Belmore litigation up on Long  
19 Island not properly raised by the appeal and no one has  
20 filed a motion to reopen the record.

21 JUDGE ROSENTHAL: You're not contending that a  
22 motion to reopen is necessary in this situation, are you?

23 MR. CHRISTMAN: Yes, I believe it is.

24 JUDGE ROSENTHAL: Why?

25 MR. CHRISTMAN: Let me tell you several reasons:

1 number one, the litigation is still ongoing and those  
2 facilities are still there. You get something like the  
3 Seabrook case where there was a court order saying that  
4 certain sirens were illegal. The contention was not  
5 admitted in that case because it lacked immediate safety  
6 impact.

7 We don't have an order telling us exactly what the  
8 Court's mandate is going to be.

9 JUDGE ROSENTHAL: The determination of the Supreme  
10 Court of the State of New York, which unless and until it is  
11 reversed by the Appellate Division of the Court of Appeals,  
12 seems to me, at least, that we have to recognize to the  
13 effect that certain necessary appurtenances, if one may put  
14 it that way, cannot be employed without obtaining a permit  
15 or a license, which up at this point has not been so.

16 Now, for the life of me I can't understand why we  
17 are not obligated -- not merely entitled, but obligated to  
18 recognize that judicial decision without any kind of motion  
19 to reopen that's before us.

20 MR. CHRISTMAN: Let me state the obvious, which  
21 is, if the Hicksville facility will service 24 percent of  
22 the Roslyn facility will service 12 percent of the EPZ, and  
23 that makes 36 percent, that meets with those two facilities  
24 alone, only LIICO's self-appointed trigger point of 30  
25 percent, but the requirement, which is 20 percent.

1 JUDGE MOORE: Where did the licensing board find  
2 that one of the facilities that was in existence when the  
3 Board ruled it was unnecessary and could be discarded?

4 MR. CHRISTMAN: Well, the Board didn't find that  
5 one of the facilities was unnecessary.

6 JUDGE MOORE: Now at a minimum, doesn't it have to  
7 go back so that the Board can base its decision on the facts  
8 as they stand?

9 MR. CHRISTMAN: This wasn't -- obviously, this  
10 wasn't an issue, but the issue was what capacity LILCO has  
11 to supply for to monitor the public? And the decision was  
12 20 percent. We still meet that standard.

13 JUDGE ROSENTHAL: Now, is that to say about Mr.  
14 Case's argument that there still is the matter of different  
15 traffic patterns, et cetera, when there are two rather than  
16 three, facilities in use?

17 MR. CHRISTMAN: I don't want to imply that we are  
18 conceding that the Belmore facility can never be used.  
19 Because what I didn't get to say was that there are several  
20 things before we ever get to that point, which is simply  
21 asking the authorities for permission to use it in an  
22 emergency. Because fortunately the New York legislators  
23 have been foresightful enough to provide that both the  
24 governor and local executives can override local and state  
25 laws that interfere or hinder an emergency response. Let's

1 not forget that.

2 We have to ask ourselves what would happen in a  
3 real emergency.

4 JUDGE MOORE: All right, let's ask ourselves what  
5 would happen in a real emergency if the injunction -- and I  
6 understand that an injunction was sought -- and you're  
7 ordered to remove the trailer and the connection, which is  
8 what's really at issue, is it not?

9 MR. CHRISTMAN: Yes.

10 JUDGE MOORE: And that's gone -- the governor and  
11 the legislators can cry "emergency" until they're blue in  
12 the face and it doesn't put a trailer there, does it?

13 MR. CHRISTMAN: See, that's why we really  
14 shouldn't be arguing about that. We really don't know the  
15 connections. What we know is according to that Judge's  
16 decision, the use of that facility, as I understand it, as a  
17 reception center in a radiological emergency would violate  
18 the zoning laws -- it's not zoned for a radiological  
19 emergency.

20 But we don't know how far that goes. And I'll  
21 remind you, too, that those trailers are mobile.

22 JUDGE ROSENTHAL: When is the judge likely to  
23 enter her order?

24 MR. CHRISTMAN: I don't know. They had not done  
25 it as of this morning, but I cannot predict when she might

1 rule. I would imagine it would be promptly, but I don't  
2 really know. As Mr. Case said, both parties have submitted  
3 their counter orders.

4 See, the order makes a difference. There are a  
5 number of things that might be done to still render that  
6 bill more facility-useful; usable. One is to apply for a  
7 special use permit. There are the possibilities of appeals;  
8 there is the possibility of stays; there's the possibility  
9 of asking for permission in the --

10 JUDGE ROSENTHAL: That would be denied, wouldn't  
11 it?

12 MR. CHRISTMAN: Well, if you look at the Seabrook  
13 case where they said that the sirens are illegal; I mean you  
14 had a worse case there. Here we don't have the Board's  
15 order or the Court's order. We don't know exactly how far  
16 it will reach; but we do know that the facilities are still  
17 there. It doesn't have an immediate safety impact.  
18 Particularly since we still -- I'm sorry?

19 JUDGE ROSENTHAL: And presumably the judge is  
20 going to enter an order within a reasonable period of time;  
21 at that point at least the uncertainty as to what the order  
22 provides will be removed. I recognize that there's  
23 possibilities of appeal; there's a possibility of an  
24 override; there's a possibility of applying for and  
25 obtaining the necessary permits.

1                   But what I don't understand still is why at this  
2                   juncture we're not compelled to take the case as it stands  
3                   with that Judge's opinion without the intervention of a  
4                   motion to reopen?

5                   MR. CHRISTMAN: Let's assume then that the Court  
6                   has -- you have an order and that this violates the zoning  
7                   law and that you are enjoined from using it as a reception  
8                   center without further approval, which is roughly what  
9                   LILCO's proposed order says.

10                   Well, as I say, there's no -- we needn't change  
11                   the plan in that case because we simply go to the  
12                   authorities at the time and say "can we please use that;  
13                   people are needful?" And I'm confident that that permission  
14                   would be granted.

15                   That's the reality. You're into realism now, as  
16                   you recognize, and we always end up there; but that's simply  
17                   one possibility depending upon how that judge rules.

18                   The reason you don't have to take that is because  
19                   of the Seabrook precedent, and because we still meet 20  
20                   percent guidance with the other two facilities.

21                   Now, you want me to get to the other question you  
22                   ask; you know, don't these people have to be told in  
23                   advance? The answer to the question is, "of course."  
24                   They're designated for certain reception centers, in this  
25                   case sectors K and N, to the west and the south are

1 designated for the Belmore facility, because you have to  
2 tell people in advance where they're to go.

3 And we open up all three facilities even if K and  
4 N aren't necessarily effected by the plume just because  
5 that's the practice.

6 Now, your question isn't this going to foul  
7 everything up? Not at all. I mean, those folks from K and  
8 N, sections K and N, who are heading for the Belmore  
9 facility -- go out west on Sunrise Highway and the Southern  
10 State Parkway.

11 But instead of going to -- assuming now,  
12 unrealistically, Belmore is wiped from the face of the  
13 earth, they simply instead of making -- they go out the same  
14 roads and instead of making a left on the Wantaugh Parkway,  
15 they make a right on the Wantaugh Parkway, right on Old  
16 Country Road, to the Hicksville facility, which has 24  
17 percent of the EPZ, which is more than the Krimm memorandum  
18 guidelines.

19 JUDGE ROSENTHAL: Where did that number come from?

20 MR. CHRISTMAN: Which one?

21 JUDGE ROSENTHAL: Hickman -- you say 24 percent?

22 MR. CHRISTMAN: You simply have to calculate the  
23 number of monitors --

24 JUDGE ROSENTHAL: But I thought you said you had  
25 30 percent of which Hickman could handle 50 percent -- I can



1 calculate that out to be 15.

2 MR. CHRISTMAN: No, if I said that, I shouldn't  
3 have. The figures are roughly the following: Hicksville  
4 will handle about 24 percent; Roslyn will handle --

5 JUDGE ROSENTHAL: Of the EPZ?

6 MR. CHRISTMAN: Of the EPZ, yes.

7 JUDGE ROSENTHAL: But your total program will  
8 handle 30 percent, is that correct?

9 MR. CHRISTMAN: Well no. We have the capacity for  
10 46 -- it all adds up to 46.6 percent.

11 JUDGE ROSENTHAL: Forty-six percent is relying on  
12 your back up people?

13 MR. CHRISTMAN: No, not at all. We're calling  
14 that 150 -- the numbers I'm talking about are 100 percent  
15 staffing. We call that 150 percent of that. That's greater  
16 and we don't count it.

17 JUDGE ROSENTHAL: Now, do you have a commitment to  
18 46 percent?

19 MR. CHRISTMAN: No. Let's get the commitment --  
20 because I'm going to be upset if you were to say that the  
21 legal requirement is 46.6 percent, because that's what my  
22 client provides. The legal requirement, we think, is 20  
23 percent.

24 Now, let me explain the 20, the 30, and the 46.6.  
25 Twenty percent is the federal guidance. LILCO relies on

1 that and has always and the record supports 20 percent and  
2 that's what the Board found and that's what we think is  
3 going to be involved.

4 JUDGE ROSENTHAL: Well get into for a moment  
5 whether the record supports that.

6 MR. CHRISTMAN: You bet. LILCO -- the 30 percent  
7 comes from the following two sources: in the first place,  
8 it's a trigger under the plan, since LILCO can do more than  
9 the federal guidance requires. They have simply said that  
10 if it is projected that more than 30 percent of the EPZ will  
11 be coming to the reception centers, then they would start to  
12 worry about overloading; they would then call for help.

13 They go to the second layer, which is to call in  
14 INPO, which is Institute of Nuclear Power Operations, and  
15 the Department of Energy, which have huge resources, and the  
16 record shows can be there fairly promptly, particularly DOE  
17 from the Brookhaven Lab, of course.

18 But that's the trigger: the 30 percent is the  
19 trigger point under the plan.

20 And in addition, the traffic analysis in the  
21 interests of conservatism was done at 30 percent, because  
22 the analyst simply arbitrarily said, "Well, if 20 percent is  
23 the federal guidance, let's half-again that much; go up to  
24 30; then we're really conservative."

25 And so if an analysis is for 30 percent and the

1 trigger point is 30 percent, what happens is that when you  
2 calculate the number of people who can actually be brought  
3 and processed through those three facilities, it turns out  
4 to be almost half the EPZ -- simply because my client has  
5 gone farther than it needs to.

6 But, "commitment" means commitment of resources as  
7 shown by the record. I should have said "commitment of  
8 resources," because what they have committed and trained  
9 their staff.

10 JUDGE ROSENTHAL: But I think no commitment to  
11 anybody in that sense.

12 MR. CHRISTMAN: Well, the plan calls for that. I  
13 suppose the answer to your question is that you would have  
14 to amend the plan if you were going to change those portions  
15 of the plan that call for a 30 percent trigger, but I would  
16 expect an amendment to the plan to be instantly granted as  
17 long as we submit that 20 percent standard.

18 JUDGE ROSENTHAL: Now, where do you have the 46.6  
19 percent goal? That percent is going where?

20 MR. CHRISTMAN: I believe 50 percent of the EPZ is  
21 routed to -- it's in one of the attachments to our  
22 testimony, which is KLD -- report TR201A, I believe. Fifty  
23 percent are routed to Hicksville.

24 JUDGE ROSENTHAL: You mean Hicksville can  
25 accommodate 50 percent of the entire population of the EPZ?

1 I'm trying to get at what is the capacity of now I realize  
2 that you think all kinds of wonderful things could happen to  
3 Belmore, but for purposes of the present discussion, I would  
4 like to take Belmore out of the picture.

5 MR. CHRISTMAN: All right, take Belmore out of the  
6 picture.

7 JUDGE ROSENTHAL: You've got two reception  
8 centers. Now, I would like to know what is the capacity of  
9 each of those reception centers? In other words, what  
10 percentage of the --

11 MR. CHRISTMAN: All right now, we've talked --

12 JUDGE ROSENTHAL: -- with the populace in the EPZ,  
13 can they handle them?

14 MR. CHRISTMAN: That's easy: Hicksville has the  
15 capacity to process 24 percent of the EPZ, and you just get  
16 that by simple calculation from T0201A, the traffic report  
17 -- 34 percent. Roslyn - 12 percent. That adds up to 36  
18 percent. Belmore, obviously, 11 percent, which you will  
19 find adds up to 46 - 47 percent. And that's the total  
20 capacity using the monitors under the plan, so you see?

21 Roslyn and Belmore are about the same -- 11 and  
22 12. Hicksville is much bigger and has 24 percent. In other  
23 words, Hicksville alone meets the 20 percent federal  
24 requirement. Hicksville, plus either of the other two, meet  
25 the 30 percent self-imposed trigger that LILCO has imposed.

1 JUDGE ROSENTHAL: Let's go on if we can to the  
2 liability of that 20 percent planning estimate. Now my  
3 impression -- and you can correct me if I'm wrong, that  
4 LILCO itself had previously estimated the sheltering  
5 requirement of 20 percent and that that estimate had the  
6 endorsement of the American Red Cross, am I wrong about  
7 that?

8 MR. CHRISTMAN: I don't know that the Red Cross --

9 JUDGE ROSENTHAL: That was my impression.

10 MR. CHRISTMAN: The Red Cross testified hearing,  
11 so -- that's right.

12 JUDGE ROSENTHAL: That's LILCO's own figure.  
13 Now, I would say that it would be within the realm of  
14 official notice that they're going to be people who do not  
15 require and do not want, sheltering, who will turn up for  
16 monitoring.

17 MR. CHRISTMAN: It's possible.

18 JUDGE ROSENTHAL: Now, what the percentage is, I  
19 don't know. I mean, your guess and my guess might widely  
20 vary. But to sum, now if the 20 percent is a good baseline  
21 figure for sheltering, it would seem to me to perforce  
22 follow that the monitoring figure has to exceed that.

23 Now, we might again disagree by what percent, but  
24 it would be by some percent.

25 Now, that being so, I would like you to tell me

1 what the justification for that 20 percent figure is?

2 MR. CHRISTMAN: Okay, I'll do that. I think your  
3 reasoning is correct. In the first place, the 20 percent  
4 figure for sheltering, which was true, was upheld, has a lot  
5 of fat in it, as you can see from the Krimm memorandum. The  
6 actual number of people universally, based on historical  
7 data base needing sheltering, is more liable -- may tail off  
8 at around 20 percent, but a more representative sample would  
9 be around three or five percent -- up to 15 percent.

10 But what the Krimm memorandum did was say -- and  
11 all of the competent experts from FEMA and the NRC staff and  
12 from LILCO's witnesses who testified, said this is a matter  
13 of judgment. We don't have a historical pattern of  
14 radiological emergencies. It is sensible to establish a  
15 planning basis that is sufficient; that it can handle most  
16 accidents and be expanded in the worst case to cover even  
17 more. And that's what the 20 percent is.

18 And I will concede to you that there is a large  
19 measure of judgment which the County likes to call "fudge  
20 factor" or "gambling" or who knows what-all else, but  
21 professional judgment by FEMA, by the NRC staff, and by  
22 competent experts presented by LILCO that the 20 percent --  
23 this is not a prediction of how many people are going to  
24 show up in a particular accident on a particular day. It's  
25 not that.

1 JUDGE ROSENTHAL: I gather Mr. Krimm did not  
2 testify, nor did anybody that might have been involved with  
3 him in the preparation of the Krimm memorandum, is that  
4 correct?

5 MR. CHRISTMAN: Well, as your question is, very  
6 narrowly yes. We had all kinds of testimony -- all kinds of  
7 testimony about the provenance (P-R-O-V-E-N-A-N-C-E) of that  
8 memorandum. We had Falk Kandor from the NRC staff come in  
9 and he talked to people who were on the steering committee  
10 who had worked in FEMA; they had day-to-day contact with  
11 FEMA and he had talked to all of these people, and he talked  
12 about the Krimm memorandum and how it came to be.

13 The witnesses from FEMA, particularly Mr. Keller,  
14 and others from the FEMA panel, cross-examined at great  
15 length about what they knew about the Krimm memorandum; how  
16 it had come to be; and who had -- a fellow named Mr. McNutt,  
17 I believe, had a hand in --

18 JUDGE WILBER: He was not a witness, is that  
19 correct?

20 MR. CHRISTMAN: They were not a witness, but  
21 experts commented -- experts from both agencies -- both FEMA  
22 and NRC, including -- well, let's not just take our indices.

23 JUDGE MOORE: Let's look at the Krimm memorandum  
24 for a minute. Is it a generic, 20 percent figure applicable  
25 to all plants; or is it site-specific?

1 MR. CHRISTMAN: No. We do have additional -- the  
2 only site-specific information -- but it's generic.

3 JUDGE MOORE: But if it's generic, how can you  
4 logically and sensibly, if you will, do that without any --  
5 look at the demographics of an EPZ?

6 MR. CHRISTMAN: Two reasons, and both of them in  
7 the record: one, because as Mr. Kantor testified, because  
8 the concept since Three Mile Island of emergency planning is  
9 to make your protective actions on the basis of plant  
10 conditions, to get people out fast, the expectation is that  
11 you're not going to have anybody contaminated.

12 And the testimony is replete with references of  
13 fact that the monitoring is principally to detect any  
14 problem that may exist and to reassure the public.

15 In short, as our witnesses testified, ordinarily  
16 you would expect only the people who need ordinarily now, if  
17 you're predicting -- people who need shelter to show up; and  
18 to be monitored -- and no one would be advised to be  
19 monitored because they were contaminated because you'd get  
20 them out of there fast.

21 That's just the object of emergency planning and  
22 the whole goal since TMI. And that's important. That's a  
23 change from since the pre-TMI days.

24 The second reason is, because these witnesses came  
25 in from FEMA and the NRC staff and said we work with this



1 every day and we believe that you cannot predict the number  
2 of people who will show up in a real emergency; but we can  
3 predict -- because we are emergency planning experts -- what  
4 kind of a planning base we got to have to be able to hand --  
5 and it's 20 percent -- which provides us with a substantial  
6 planning base that can be expanded in an emergency.

7 Let me explain that before you interrupt me --  
8 with two more pieces of testimony: Dr. Linnemann, who was  
9 at the TMI response -- he was for the industry, not for the  
10 government, but he was involved in the response to TMI --  
11 and he testified that it was important from his experience,  
12 not that you have a lot of people lined up; but that you  
13 have the infrastructure.

14 He said that the problem at TMI wasn't that they  
15 didn't have the monitors; it was they didn't have the plan;  
16 the organization; to use them. And that's the point of the  
17 20 percent. You have a substantial planning base that  
18 covers, according to Mr. Nulman's testimony, and in his  
19 analysis, his PRA type analysis, almost all of the  
20 emergencies you would ever have, and for those few  
21 extremely, extremely bad ones, you can expand the plan.

22 And our procedures expressly say LILCO so-and-so  
23 is --

24 JUDGE MOORE: Has this question ever been  
25 litigated before?

1 MR. CHRISTMAN: No, I think this is the first  
2 time.

3 JUDGE MOORE: Why is the record silent on what 90  
4 some plants prior to this proceeding did for a planning  
5 base as far as a percentage in the number, prior to 1985,  
6 when the Krimm memorandum was issued?

7 MR. CHRISTMAN: Why is our record silent --

8 JUDGE MOORE: The only evidence in your record is  
9 that nine mile points 36 percent, and that's 16 percent more  
10 than 20 percent. And there's also mention that Trojan is  
11 not 100 percent, leaving the implication that it's a hell of  
12 a lot more than 20 percent in the context in which that  
13 testimony was given.

14 MR. CHRISTMAN: There's a bit more evidence than  
15 that. There are -- New York plants suggesting --

16 JUDGE MOORE: But none meet 100 percent.

17 MR. CHRISTMAN: Oh, right. None of them meet --  
18 no one meets 100 percent.

19 JUDGE MOORE: That's the other evidence about the  
20 New York plants, is it not? There are no numbers in your  
21 record. Why?

22 MR. CHRISTMAN: There are some, but it's hard to  
23 dig them out.

24 JUDGE MOORE: What are they? Enlighten me,  
25 please?

1 MR. CHRISTMAN: Well, as you say, there's 35 to 40  
2 percent for the nine mile facility, and I would have to --  
3 you'd have to go out to the number of monitors provided and  
4 the number -- it's impossible to tell how many monitors are  
5 -- the capacity from looking at the plants. We couldn't  
6 figure it out and the witnesses couldn't seem to tell us.

7 But it was clear there was less than 100 percent.  
8 And indeed, some of our testimony showing was quite small.  
9 In some cases we had to withdraw.

10 But your questions is, why do --

11 JUDGE MOORE: In 1985, when the Krimm memorandum  
12 was issued, there were 90 some plants licensed. That meant  
13 there were 90 some emergency plans -- in TV land. That  
14 means, in theory, the staff and FEMA had found the planning  
15 base for 90 some emergency plans adequate. And to find it  
16 adequate you have to know what you found adequate.

17 So in theory, the staff and FEMA had looked at all  
18 those other plans, and when they gave it their stamp of  
19 approval, this issue had been looked at.

20 MR. CHRISTMAN: Yes.

21 JUDGE MOORE: Why is the record totally devoid of  
22 any information as to what the rest of the country and the  
23 other 90 some plants out there were doing?

24 MR. CHRISTMAN: Because it's very hard to find  
25 from the published documents -- and we went and looked --

1 what the capacity is.

2 JUDGE MOORE: It's not that tough to bring 90  
3 witnesses, one from each plant, in and ask them, though.

4 MR. CHRISTMAN: You think it's not tough to bring  
5 in 90 witnesses? It's very tough.

6 And we presented evidence. We were worried about  
7 confidentiality. We got information from the local  
8 government people, who seemed to have this information. We  
9 were required -- we were forced to withdraw it because we  
10 did not want to reveal their names.

11 JUDGE ROSENTHAL: Mr. Christmas, if you had two  
12 EPZs, both of them with the same total number of people  
13 within the EPZ but in one case the population is  
14 concentrated within a mile of the reactor foundry. In the  
15 other case, the population is all of the outer extremities.

16 MR. CHRISTMAN: The rim of the wheel versus the  
17 spoke --

18 JUDGE ROSENTHAL: In no circumstances -- you can't  
19 tell me, I wouldn't think, that the same planning estimate  
20 for both EPZs would be appropriate. Now, it seems to me  
21 that, given the widely variant population distribution  
22 within the EPZ, that you'd have widely variant estimates as  
23 to the number of people that would require monitoring.

24 MR. CHRISTMAN: Might be.

25 JUDGE ROSENTHAL: Or would seek monitoring, even

1 if they didn't require it.

2 MR. CHRISTMAN: It might be -- you're saying the  
3 number of people who might be contaminated, affected by the  
4 plume or who might be asked to, as a precautionary measure -  
5 -

6 JUDGE ROSENTHAL: Or might themselves decide. I  
7 might well -- if I'm half a mile from the plant when the  
8 whistle blows, I might well decide that I want to be  
9 monitored, out of an abundance of caution, whereas if I were  
10 sitting on the outer rim of the EPZ I might not have that  
11 same measure of concern.

12 MR. CHRISTMAN: You might, if you -- and probably  
13 a small fraction would. You might, if you didn't listen to  
14 any information you received, any reliable information. If  
15 you didn't act rationally, you might very well.

16 JUDGE ROSENTHAL: Well, my -- I'm not a  
17 psychologist, but my impression that you can't count on a  
18 population to act entirely rationally in the face of most  
19 emergencies, and I would suspect particularly one of a  
20 radiological character.

21 MR. CHRISTMAN: Well, Judge Rosenthal, you've got  
22 to be careful. There's an extensive record in this case.  
23 People -- to act rationally in emergencies, as a matter of  
24 fact.

25 Yes, I can't say 100 percent. There will be

1 somebody out there, maybe one guy, who does something crazy.  
2 But people react very rationally and you'll find the  
3 county's witnesses saying that the evacuation of Three Mile  
4 Island, the shadow evacuation, which was the most unplanned  
5 thing that can be imagined, reflected an orderly process.

6 People make up their minds and they listen to  
7 information and they do the right -- they make a rational  
8 risk assessment and do the rational thing, generally.

9 JUDGE ROSENTHAL: Let me ask you one question on  
10 another facet of this matter. That is, my recollection is  
11 that the licensing board took into account the services of  
12 the Nassau County Police escorting people, or at least  
13 traffic management, or whatever, from the Suffolk borders to  
14 the reception centers in Nassau.

15 It's also my impression that a large amount of the  
16 evacuation would be in Suffolk County, from the outer  
17 boundary of the EPZ to the Nassau County line.

18 MR. CHRISTMAN: Yes, sir.

19 JUDGE ROSENTHAL: Now, did the licensing board  
20 take into account that at all, and if not, why shouldn't it  
21 have.

22 MR. CHRISTMAN: No, it didn't and they shouldn't  
23 have, because when you're talking about Suffolk County  
24 you're talking about their three main highways: The Long  
25 Island Expressway, the Northern States Parkway and the

1 Southern State Parkway. And those are limited-access roads.

2 Ones the people get on those main evacuation  
3 routes, it's bumper-to-bumper traffic, what's called level  
4 of service F. It's called forced flow or stop and go.

5 The problem people will have is that people  
6 outside the EPZ, if they wanted to get on and go to the  
7 grocery store, will have difficulty getting on the auto  
8 ramps. The problem -- the evacuees don't have any problem.  
9 You don't need traffic cops to drive -- to direct you along  
10 the Long Island Expressway. You do have traffic guides  
11 inside the EPZ, of course, to expedite people's getting out  
12 of there.

13 JUDGE ROSENTHAL: Well, all you need on the  
14 expressway, I think, are people to feed you for the 36 hours  
15 that you're sitting in one place.

16 MR. CHRISTMAN: It takes more like about an hour  
17 and -- well, starting -- the first people are expected  
18 within about two hours.

19 I know what you're saying, but that's not true.

20 You know, 30,000 people -- 30,000 cars, I'm sorry.  
21 30,000 cars drive westward out of the EPZ every week day  
22 morning and they don't like it. It's crowded. It's often  
23 the level of service F, but they get there and it doesn't  
24 take them the amount of time that's been given for  
25 evacuation.

1                   Now, the reason is, the issue of traffic control  
2 is at the intersections. There is no real -- our evidence  
3 suggests that you don't really need traffic cops at those  
4 intersections near the facilities either, but to be  
5 absolutely safe, Mr. Urbanik, from the NRC staff, said he  
6 thought there should be traffic control.

7                   Our witness say, yes, he thought there should be  
8 traffic control, too. The Board agreed.

9                   Now, I didn't get to your wheels, spoke and hub --  
10 I'm sorry, I interrupted you.

11                   JUDGE ROSENTHAL: Go ahead.

12                   MR. CHRISTMAN: Would you like to me go to the  
13 wheel or --

14                   JUDGE ROSENTHAL: Go ahead.

15                   MR. CHRISTMAN: Okay.

16                   You've posed a very difficult technical question  
17 in terms of probabilistic risk assessments. In other words,  
18 if everybody lives real close to the plant, once the  
19 probability that a certain number of people are going to be  
20 exposed given the spectrum of accidents that might occur as  
21 opposed to the people on the outer rim.

22                   But, I still think the 20 percent applies in both  
23 cases because the philosophy of the planning is to look at  
24 the plant conditions and LILCO's plan reflects that. You  
25 can look at the pie charts they have and see that. They



1 have simple rules for what's happening to the plant and when  
2 you tell people get out because we don't know -- you know,  
3 there may be a problem -- you get them out fast.

4 So I think probably the 20 percent should apply in  
5 either case just as well. Because remember, we're not  
6 predicting how many people are going to show up. But some  
7 day, in the year 2005, in a particular Class 9 accident we  
8 can't predict.

9 We're making a planning basis that all of the  
10 experts from the agencies and our experts said, in our  
11 judgment, that's a reasonable planning basis.

12 And moreover, we wouldn't went beyond that. We  
13 told them how we were going to expand this planning basis,  
14 if we had to. We've got a whole layer of back-up measures.  
15 And so, LILCO just went beyond the standards.

16 But I'm telling you, it's the 20 percent standards  
17 that we're defending, and that's what the plan is based on.

18 JUDGE MOORE: Can you tell us why the upper bound,  
19 i.e., the fudge factor that was chosen by the Krimm  
20 memorandum was chosen and what it's rational is?

21 MR. CHRISTMAN: Yes, it's -- and it says that for  
22 the record. It says there's a large measure of professional  
23 judgment, and they asked the individual witnesses whether  
24 you personally agree and Mr. Husar said, my personal opinion  
25 is -- he said, look, if policy had set a higher, in their

1 judgment, you know, we'd implement higher. And they said --  
2 the county's lawyer said, well, what's your personal  
3 judgment? He said, in my opinion, I wouldn't go higher than  
4 20 percent.

5 And they were saying and there is more testimony  
6 to that -- of that sort. Mr. Kantor from the NRC staff  
7 talked about all the people he talked to, and he said, look,  
8 we deal with these matters every day. We talk to FEMA. We  
9 talk to the -- the NRC staff talk to FEMA, and back and  
10 forth, and the professional judgment of the planners is that  
11 20 percent is enough.

12 Now, LILCO supported that in their own testimony,  
13 but, you know, I talk only about the Federal Government.

14 JUDGE WILBER: The number of people you are saying  
15 can be handled at Hicksville and Roslyn is based on 100  
16 seconds per vehicle, a number that you've used?

17 MR. CHRISTMAN: That's right.

18 JUDGE WILBER: I come up with several different  
19 times and I wonder which one you have in mind.

20 If you use 100 seconds per vehicle that would I  
21 think calculate out to 70 seconds per passenger . .

22 MR. CHRISTMAN: Let me give you how I got the  
23 numbers, if you don't mind, and then you can -- you can see  
24 if I'm not right after the argument from the record.

25 You've got -- at Hicksville you've got 32

1 monitoring stations. At a monitoring rate of 1152 vehicles  
2 per hour, which you can either find in the traffic -- in the  
3 traffic reports or you can calculate it for yourself with a  
4 calculator, if you want. You know, 100 seconds divided into  
5 3,600 seconds. That sort of thing.

6 The number of vehicles you get in 12 hours is  
7 13,824 vehicles. That amounts to of people of about 38,707,  
8 which is about 24 percent of the roughly 160,000 people in  
9 the EPZ.

10 Roslyn, 16 monitoring stations. You do the same  
11 calculation, you get -- there's a monitoring rate which you  
12 can either calculate or get out of the traffic documents:  
13 of 576 vehicles per hour, 6,912 vehicles in 12 hours.  
14 People, over 19,000. About 12 percent.

15 That's where the 36 -- I added those two up.  
16 That's 36 percent with just those two facilities. But we  
17 haven't -- as with the sirens at Seabrook, the facility is  
18 still there and we don't have the --

19 JUDGE WILBER: Do you have other testimony that  
20 says it takes -- it depends on which part you want to read.  
21 Sometimes it's 66 seconds per person, not vehicle, per  
22 person --

23 MR. CHRISTMAN: Buses. That's buses.

24 JUDGE WILBER: And that's also 90 seconds per  
25 person.

1 MR. CHRISTMAN: That's -- yes. 90 seconds didn't  
2 play a part in this. It was either an earlier version or  
3 something --

4 JUDGE WILBER: Well, that's in one of your  
5 operating procedures.

6 MR. CHRISTMAN: Yes, I know. Some of those were -  
7 - you know, we also put in the amendments to the operating  
8 procedures.

9 The numbers -- your numbers are correct. The 100  
10 seconds is for the vehicles coming through. That's a  
11 vehicle. Even if it has four people in it. The 60 seconds  
12 is for bus passengers arriving in Hicksville.

13 The buses -- you know, the general public that  
14 don't have cars of their own, they come in buses. They're  
15 all taken to Hicksville and they are monitored individually.  
16 The monitor gets on the bus, goes up the aisle, has people  
17 stand up and does a X-pattern -- I believe front and back.  
18 That takes a little extra time.

19 The rationale for the extra time on that is in the  
20 record.

21 JUDGE WILBER: Actually, it takes less time,  
22 according to your figures.

23 MR. CHRISTMAN: Well, it takes more time per  
24 person probably.

25 JUDGE WILBER: That's what I'm talking about. If

1 you do your numbers of 100 seconds for 2.8 passengers,  
2 that's 70 seconds per passenger --

3 MR. CHRISTMAN: Well, yes, they --

4 JUDGE WILBER: -- as opposed to 60 seconds.

5 MR. CHRISTMAN: Remember they have --

6 JUDGE WILBER: These may be minor seconds, but if  
7 you add them up over several thousand persons, it starts  
8 chewing away at your percentages very quickly.

9 MR. CHRISTMAN: Yes, but it doesn't cause me any  
10 problems because, you know, the 100 seconds is -- in the  
11 first place, it involves things like driving up. You know,  
12 you ask the person, do you need a map to congregate care  
13 center. They drive off.

14 This was tested -- was measured in actual practice  
15 with a several hour exercise that was done right before the  
16 hearings and it was videotaped. The videotape was offered  
17 into evidence, but the licensing board refused to accept it.

18 Mr. Lieberman, though, went to the videotape and  
19 looked at -- it must have been an incredibly boring job, but  
20 he counted them and timed it with a stopwatch. And he was  
21 also at the exercise and I think I saw him going around with  
22 the stopwatch timing the actual cars at the same time.

23 And he produced a graph of how long it takes to do  
24 this procedure, and it's in the record. It's attached to  
25 his last piece of testimony, probably called surrebuttal

1 that he put into evidence. And you'll see a graph there  
2 that shows the timing of these things.

3 So I can quibble and try to explain the  
4 differences in the times, but let me tell you it has been  
5 tested and it is in the record. It's been practiced and it  
6 works.

7 And also, I believe it worked in the recent  
8 exercise and I believe everything went off okay there, too.  
9 At least, they met the timing.

10 JUDGE WILBER: How do you explain the board's  
11 statement that FEMA had no enthusiasm for a 90 second per  
12 person measurement? What does that mean?

13 MR. CHRISTMAN: They -- simply at the hearing they  
14 had not signed off on the monitoring procedure, and I don't  
15 remember where the statement --

16 JUDGE WILBER: I'm talking about the licensing  
17 board.

18 MR. CHRISTMAN: No, I understand. It's from the  
19 initial decision. I don't remember exactly what part of the  
20 evidence he was referring to, but it's not particularly  
21 important. They have -- the testimony from the FEMA  
22 witnesses --

23 JUDGE WILBER: Well, it's important if you add 15  
24 or 20 percent to you times, which reduces your number of  
25 people by that amount.

1 MR. CHRISTMAN: The lack of enthusiasm, if any,  
2 was the -- came from the FEMA testimony, I suppose, that  
3 there are other ways to do it and some places take longer.

4 But the testimony also shows that the longer you  
5 have to monitor to find contamination the smaller the  
6 contamination you're probably talking about. The licensing  
7 board correctly found that as a means of screening people in  
8 rather large numbers, this is a perfectly appropriate  
9 procedure.

10 And let me remind you, too, that the procedures  
11 and the training calls for these people it monitors that it  
12 has to be very, very conservative. And so, if in monitoring  
13 the car and the occupants in the 100 seconds they find any  
14 evidence of contamination, they are directed and trained to  
15 send the people to the decontamination trailers where they  
16 get much more thorough monitoring.

17 JUDGE MOORE: The licensing board, as I read it's  
18 opinion, seemingly dismissed almost out of hand the  
19 monitoring shadow effect asserted by the Government. A  
20 shorthand way of referring to that, I guess, would be the  
21 fear factor.

22 Yet, on the one hand the licensing board did that,  
23 on the other hand the licensing board accepted, embraced, if  
24 you will, this -- the Krimm memorandum that doesn't explain  
25 any of its rationale except it lists three factors on which

1 its based on. And the second of those factors is the fear  
2 factor.

3 Now, how can the licensing board consistently  
4 dismiss the monitoring shadow effect, i.e., the fear factor  
5 on the one hand and then embrace the Krimm memorandum which  
6 endorses the same concept and says that he's relying on that  
7 professional judgment which embraces the fear factor.

8 I see an inconsistency there that I can't  
9 reconcile.

10 MR. CHRISTMAN: Okay. I don't think it's truly an  
11 inconsistency, although it does look -- it may look that way  
12 on the surface.

13 The -- I suppose it's always conceded that there  
14 will be some probably small number of people who might show  
15 up regardless of objective need. And the record also  
16 reflects that part of the reason for having the monitoring  
17 requirement at all was to allay public concerns. And so I  
18 think it's appropriate -- was probably appropriate for FEMA  
19 to say, yes, some small number might show up in addition to  
20 allay fear.

21 But basic -- but you have to read that, I  
22 think, in connection with all of the consistent and  
23 supporting evidence that came into the record, which says  
24 that the 20 percent is not only supported, in the judgment  
25 of FEMA, by the factors listed in the Krimm memorandum, but



1 it's supported by the factors listed by Mr. Kantor, the NRC  
2 staff witness, which includes things like the concept of  
3 making protective action recommendations based on plant  
4 conditions.

5 It is consistent with out witness' testimony  
6 that it's consistent with how they've seen protective action  
7 recommendations made based on a plume.

8 Did I say it's consistent with Mr. Hulman's  
9 totally different analysis?

10 You see -- and it's consistent most of all with  
11 the witnesses, the live witnesses, who were there to explain  
12 the Krimm memorandum and explain that there is a -- it is to  
13 be sure, a large measure of judgment. And Mr. Krimm, I'm  
14 sure, was trying to articulate the basis for a judgment  
15 which is, at bottom, a judgment of professional experts, and  
16 he may not have, you know, given all the factors that go  
17 into one's judgment.

18 But the record is clear that these people who have  
19 this judgment came in and said 20 percent is a substantial  
20 basis.

21 JUDGE MOORE: Can you tell us -- since you entered  
22 the Krimm memorandum in evidence --

23 MR. CHRISTMAN: As did FEMA, yes, we did.

24 JUDGE MOORE: -- in front part of the memorandum,  
25 when Mr. Krimm notes that research into this matter however

1 has revealed that anywhere from 3 to 20 percent of the  
2 evacuees arrived at relocation centers or shelter, what that  
3 research is?

4 MR. CHRISTMAN: Yes, sir. It's Mr. McNutt, who is  
5 the expert at FEMA, and he has a data base. There is -- the  
6 record will reflect that there is an the evacuation in this  
7 country at least once a week, on average. There are lots  
8 and lots and lots of evacuations.

9 FEMA tracks these things. Indeed, they have  
10 reports of disasters that come in from the localities and  
11 they have a data base.

12 And that research was looking at the historical  
13 record of accidents and how people behave. What people have  
14 done in those accidents. And I can tell you, for instance,  
15 he considered the Three Mile Island incident. He considered  
16 the Mississauga chemical spill. He considered the Taft  
17 Louisiana chemical spill. I don't remember what the  
18 chemical --

19 JUDGE MOORE: Is all this in the record?

20 MR. CHRISTMAN: Yes, it is. There's a list in the  
21 record. I think the county put it in cross-examination of  
22 the -- there was a list provided to the county in discovery  
23 of the -- at least some of the accidents or historical  
24 events that Mr. McNutt and company had looked at, and I'm  
25 pretty sure they put that into it. I think you'll find it

1 in --

2 JUDGE MOORE: All right. Are those the same group  
3 of disasters that your witnesses in 1984 relied on in  
4 arriving at the 20 percent sheltering figure that your three  
5 witnesses testified to and documented, if I remember  
6 correctly?

7 MR. CHRISTMAN: Yes. I'm not sure -- some of them  
8 were more -- Mississauga is fairly recent. It was the same  
9 basic historic data base. The historic data base shows that  
10 very few people show up at reception centers. I think the  
11 15 to 20 percent is at the high end.

12 In a place -- the record also will show that at a  
13 place like Long Island where people come from New York City  
14 and have -- well, there are lots of places to go on Long  
15 Island.

16 The only people that go to reception centers for  
17 shelter are people who don't have family and friends to go  
18 to and can't afford a motel. I mean, that's the sad  
19 historical fact and that's what the record shows, and it  
20 showed that when Mr. McNutt looked at it and it showed it  
21 when we looked at it, too.

22

23

24

1 MR. CHRISTMAN: There is a fudge factor in that 20  
2 percent.

3 JUDGE WILBER: I thought your earlier testimony was  
4 based on some studies based by the center for disasters, or  
5 I may have the thing all garbled there.

6 MR. CHRISTMAN: Oh no, but that is the historical  
7 record. See they are the record. The disaster resource  
8 center, they've gone out, and they send people to these  
9 emergencies, you know the --

10 JUDGE WILBER: As I recall, based on that, the  
11 number was 20 percent.

12 MR. CHRISTMAN: Yes, but that's the way upper  
13 limit.

14 JUDGE WILBER: No, no I mean based on the events  
15 they analyzed, and the quick calculations showed it was 18  
16 and a half, 25 and 20.

17 MR. CHRISTMAN: But that's either with the --  
18 right at the tail end of the distribution. It's up at the  
19 upper half. At TMI 183 people showed up at the relocation  
20 center, for instance. That would be more typical. In a  
21 place like Long Island, that would be more typical.

22 Yes, the 20 percent was used, but that was -- the  
23 Red Cross had lots of places to stay, and they took a very  
24 conservative, the 20 percent was very conservative for  
25 sheltering. Which also, well, it's also appropriate for

1       sheltering and monitoring.

2               MS. SHEA: That's right, that the Krimm memorandum  
3 starts with sheltering as a basis, and adds to it, a  
4 quantity over an above that to arrive at a modern training  
5 idea. That's --

6               MR. CHRISTMAN: I believe that's right. You know,  
7 they asked one of the FEMA witnesses, the county asked the  
8 FEMA witnesses, well, this is based on sheltering, is it  
9 just sheltering? And they said well, there were other  
10 things offered by sheltering. I'm not sure. We can't say  
11 they only went for sheltering. There are all sorts of  
12 services provided at reception centers.

13               But if the question is, did these people go on  
14 historical record for radiological monitoring, no of course  
15 not. There hasn't been a case like that. That's why FEMA  
16 had to exercise judgement.

17               JUDGE WILBER: But surely FEMA's looked at dozens  
18 of plans where some timing has been made and referred to Mr.  
19 Moore's question.

20               MR. CHRISTMAN: They have certainly looked at --  
21 they review all of the plans.

22               JUDGE WILBER: There's nothing available to look  
23 at, as I recall in the Krimm memorandum.

24               MR. CHRISTMAN: Well, he means there has never  
25 been historic incident where you can -- gives you -- to look

1 at empirical data on people who went for monitoring. There  
2 is a historical, obviously there is a vast historical record  
3 of how people behave in real emergencies, which is what we  
4 wish to emphasize.

5 JUDGE MOORE: And is there an historical record  
6 for emergency plans, or prior to 1985 what the planning base  
7 was?

8 MR. CHRISTMAN: I think if you want a data base,  
9 somewhere out there that tells what the capacity of the  
10 reception centers are for the many other emergency plans for  
11 nuclear plants in this country, it's hard to find it. We've  
12 gone out and we asked --

13 JUDGE MOORE: That suggests that it's not there.

14 MR. CHRISTMAN: Well, I don't think it's been  
15 scrutinized. See, the problem is it hasn't been scrutinized  
16 on the record of these sorts of proceedings because it's  
17 simply not litigated elsewhere. I mean everything is  
18 litigated in the Shoreham case.

19 JUDGE MOORE: I'll grant you that -- that this is  
20 the first time it's been litigated, but I have a hard time  
21 understanding how 97 plans could be approved without a  
22 planning base for the monitoring figure prior to this day.  
23 Either that or FEMA and/or the staff were asleep.

24 MR. CHRISTMAN: No, no, I don't think so. It's  
25 not an issue there. They've simply set up a -- it's

1 litigated here, it makes no difference.

2 JUDGE WILBER: But doesn't J.12, whatever the  
3 II.J.12, or whatever it is, isn't that a point that FEMA and  
4 the staff should look at?

5 MR. CHRISTMAN: I'm sure they are. I would  
6 venture to say that FEMA is certainly applying the Krimm  
7 memorandum or --

8 JUDGE WILBER: They must have numbers in or how  
9 can they make a quantitative judgement on that?

10 MR. CHRISTMAN: Well, you're asking me, have we  
11 gone out and looked at, for instance, exercise reports, and  
12 plan reviews of other plans, to try to find out the numbers.  
13 Yes we have. The answer was not crystal clear.

14 JUDGE WILBER: I'm sorry.

15 MR. CHRISTMAN: The answer was not crystal clear.  
16 It's not easy -- you can't find those numbers and make a  
17 column, and look, we've tried. FEMA knows what it's doing,  
18 and I believe they are reviewing these against the Krimm  
19 memorandum, and they certainly exercise --

20 JUDGE WILBER: Since 1985, what about before that?

21 MR. CHRISTMAN: Well, you know you're going to  
22 have to -- you probably ought to ask someone from the  
23 federal government what they did before then. I'm sure, I  
24 know that FEMA's review program is an evolving process, and  
25 I'm sure it is not a contentious issue in those days,

1 because it's after all, facilities, which are usually high  
2 schools, or churches, for needs people.

3 JUDGE MOORE: We have held you over your time.

4 MR. CHRISTMAN: Oh, I'm delighted to be held. Do  
5 I get a few poultry seconds to sum up?

6 JUDGE MOORE: Yes.

7 MR. CHRISTMAN: Okay, let's see if I missed any of  
8 the questions you asked Mr. Case, I guess I made the point  
9 that we're not talking about predicting the number of people  
10 we're setting up data base, that was the most important  
11 message I wanted to deliver today.

12 I also wanted to mention the LULU issue, even  
13 though nobody else has, I don't think anybody cares about  
14 it. You know, even if you accept the proposition that  
15 people around the, you can call it another type of shadow  
16 effect, that people are going to flee from those reception  
17 centers in an emergency. The record reflects on page 18,600  
18 and a couple pages before that, that it would be reasonable  
19 to assume that the people would flee in panic promptly, and  
20 they will therefore evacuate the area, and the background  
21 traffic will go down, and evacuees will find it easier to  
22 get to the reception centers. Likewise, you would reason  
23 that the evacuees around the reception centers would  
24 evacuate away from the reception centers where the evacuees  
25 are coming toward them, and again that would make it easier.



1           So leaving aside all of the arguments we made in  
2 the briefs, if you look at the LULU issue, it, and if you  
3 believe it, which I don't, it helps the LILCO plan.

4           The short of the matter gentlemen, is that there  
5 are no substantial issues in this appeal, except for the 20  
6 percent issue, and there the record soundly supports the  
7 decision the board reached. And I believe you should affirm  
8 the license in this issue, and I thank you.

9           JUDGE MOORE: You're in the best position to bring  
10 us up to date, I guess, on exactly where the litigation for  
11 the license on LILCO stands. What parts -- are there  
12 hearings going on before any licensing board?

13           MR. CHRISTMAN: I'll tell you what -- no. But I  
14 can tell you what is now before the Gleason Board for  
15 decision. We have the -- we have motions on the EBS system,  
16 the emergency broadcasting system, and we have asked that  
17 any remaining issues be resolved summarily. We have now the  
18 issues of hospital evacuation time estimates, and bus driver  
19 role conflict, that was submitted with up in the hearing in  
20 May and June and I believe now is awaiting a decision. We  
21 have a little hearing that was held in early July on the  
22 conduct of discovery, and that in turn effects the issue of  
23 the realism contingencies. But the important thing, I think  
24 you want to know, since realism keeps coming up, is that the  
25 realism contingencies are in the process of being resolved

1 in LILCO's favor. And the only thing we don't know yet is  
2 whether the licensing board is going to resolve them on the  
3 merits as we have urged, or as a sanction against the  
4 intervenors for refusing to go forward with the discovery of  
5 the order.

6 JUDGE WILBER: Did you say the realism has been  
7 resolved?

8 MR. CHRISTMAN: It has. The decision has not been  
9 written. But in various tele-conferences, the board has  
10 indicated that it is not going further with the realism  
11 contingencies.

12 JUDGE ROSENTHAL: So there will be no hearing.

13 MR. CHRISTMAN: There will be no hearing.

14 JUDGE ROSENTHAL: And when we're talking about the  
15 realism, we're talking about whether they presume the best  
16 efforts of the state and local governments following the  
17 emergency plan of the utility, will be sufficient?

18 MR. CHRISTMAN: There will be no hearing.

19 JUDGE ROSENTHAL: No hearing.

20 MR. CHRISTMAN: But you will certainly get the  
21 issue.

22 JUDGE ROSENTHAL: Well --

23 MR. CHRISTMAN: You will get it without a hearing  
24 record, except for the record on the conduct of discovery.  
25 But --

1 JUDGE ROSENTHAL: We might be able to wait a  
2 while.

3 MR. CHRISTMAN: I imagine one of the things you'll  
4 be getting next is the bus driver role conflict decision,  
5 and then there is the EBS. I hope that there will be no  
6 hearing on the EBS, either because we've asked that there be  
7 no hearing, we think there should not be.

8 JUDGE MOORE: You saw a summary disposition?

9 MR. CHRISTMAN: Yes.

10 JUDGE ROSENTHAL: The role conflict and the  
11 hospital issues are ones that we remanded, right?

12 MR. CHRISTMAN: Correct, and we've now had those  
13 hearings and they were very detailed and they will be coming  
14 up and if anything the record in those hearings is even  
15 better than the one in the reception centers.

16 JUDGE ROSENTHAL: Thank you.

17 MR. BACHMANN: May it please the board. The first  
18 issue I think we really need to talk about since it was  
19 brought up by the -- attorney, is the Belmore situation. As  
20 a little background to that, if you'll note the letter I  
21 sent to this review board on August 31, the second page,  
22 there is a citation to the initial decision, which goes to,  
23 what would that be, 27 NRC, pages 531-532. Where it has the  
24 numbers for the capacities of the reception centers. I  
25 believe that was a question as to where you would find those

1 numbers, and that's where it is. So that might help out a  
2 little bit.

3 The -- it's been stated by counsel for interveners  
4 that there was a number of issues that would call for an  
5 overall remand of the reception center issue back to the  
6 licensing board because of the decision made by the New York  
7 court. Since I saw the reaction of this review board to  
8 the suggestion of a motion to re-open I'm not going to  
9 pursue that any further.

10 The only thing that was said was that, well,  
11 there's going to be an effect on traffic, for instance, or  
12 maybe on the facilities. The licensing board said that the  
13 ultimate capacity to monitor the number of evacuees as  
14 planned, depends upon the rate of which the reception  
15 centers can monitor them, and not the capacity of the road  
16 system, to deliver the evacuees to the centers.

17 JUDGE ROSENTHAL: That may be so, but isn't it  
18 fair to say, Mr. Bachmann, that the licensing board's  
19 decision rested upon its assumption that there was going to  
20 be three, not two, reception centers. And I don't see  
21 anything in the licensing board's decision that said, well  
22 we've got in effect, one reception center to spare. That  
23 even if one of the reception centers went by the boards,  
24 that there still is an adequate margin. The licensing board  
25 had three reception centers before because that was what the

1 applicants had served up, and the decisions seemed to be  
2 based upon three. And it seems to me in that circumstance,  
3 that at the very least, the matter would require a remand of  
4 the licensing board to say okay, folks, your previous  
5 assumption that there were three reception centers is now in  
6 the rumor stage. Now there is minimum substantial doubt  
7 that it will be a decision of the state Supreme Court in New  
8 York and how do you come out with the two reception centers?  
9 Why isn't that the appropriate judiciary course, if you  
10 will?

11 MR. BACHMANN: It is one way of doing it sir.

12 JUDGE ROSENTHAL: Of course it's one way. But why  
13 isn't it the appropriate one?

14 MR. BACHMANN: I would say just simply because  
15 litigation must sometime have an end, and to --

16 JUDGE ROSENTHAL: I haven't discovered that to be  
17 an axiom that has much force in the annals of NRC  
18 judicatio.

19 MR. BACHMANN: Certainly not with the Shoreham  
20 case sir. However, it -- when we have a situation where we  
21 have a court decision, which the licensing board  
22 acknowledges could occur, and suggested that the record  
23 could be re-opened using proper motions at that time, which  
24 was in the initial decision, we don't really know the  
25 effect, and I would say that backing off perhaps from the

1 formal motion to re-open on the part of the interveners, if  
2 that is not what the appeal board is looking at, that at  
3 least they should be tasked with making some sort of prima  
4 facie demonstration on how the removal of the Belmore center  
5 --

6 JUDGE ROSENTHAL: We have to make the  
7 demonstration. The applicant was one that served up a plan  
8 and had three reception centers. It seems to me, if one of  
9 the reception centers had disappeared, it's the applicant's  
10 burden, not that of the government to establish that the  
11 illumination of this warm reception center --

12 JUDGE MOORE: Well, in any event, isn't it  
13 something that should be done in front of a licensing board?

14 MR. BACHMANN: Of course, the appeal board has the  
15 power to take facts and make its decision since the record  
16 has been closed. It depends on really, what are we talking  
17 about. Right now, we don't know, as Mr. Christman has said,  
18 what the effect of that court decision will be. Perhaps  
19 once we do know, I would suggest that --

20 JUDGE ROSENTHAL: When are we going to know that?  
21 One of the options that are available to the applicants is  
22 an appeal. I don't know what the course of appellate review  
23 is in New York, I assume go to the appellate division, and I  
24 would imagine, unless that court acts with -- then most  
25 appellate tribunals do, that would be a period of time. Are

1 you suggesting that we sit back and simply hold this to wait  
2 and see whether there's appeal taken, or whether  
3 alternatively they seek a license from the appropriate local  
4 officials, or whether they get somebody to override the  
5 local zoning regulations, or what. We've got this case  
6 right now before us. And it doesn't seem to me to make a  
7 lot of sense for us to sit back and wait for future  
8 developments. It may be months perhaps even years.

9 MR. BACHMANN: One of the members of the board  
10 mentioned, I believe it must have been Mr. Moore that now  
11 Belmor has disappeared. Belmor is still there as far as we  
12 know. I have difficulty with what I perceive perhaps to be  
13 perhaps pre-judgement here, because the facility still  
14 exists, they've not been ordered to discontinue it yet, or  
15 to dismantle things. We simply haven't had a demonstration  
16 of the effect of the court's decision. And that's where I  
17 have problems with a wholesale remanding.

18 JUDGE ROSENTHAL: It hasn't physically  
19 disappeared, but it seemed to me that the judge's decision,  
20 which may or may not stand up on appeal, if there is one, is  
21 pretty clear in its face. She holds that you cannot operate  
22 this as a reception center, it's a practical matter, without  
23 obtaining a permit or license or some kind of authorization.

24 Now, that seems to be fairly clear. It doesn't  
25 physically dispose of Belmore, but it looks to me that it

1 brings its utilization as a reception center into  
2 considerable doubt.

3 MR. BACHMANN: Well, as it was mentioned earlier  
4 as a response to our question from Chairman Moore, that in  
5 the event of a national emergency, and we skirt well into  
6 the realism situation again, Mr. Christman pointed out that  
7 it would be the governor or someone else would come in and  
8 step in and do it. One must also, I believe, under the way  
9 the Commission has set it out, assume that the local  
10 authorities would cooperate. They would not turn these  
11 people away.

12 JUDGE ROSENTHAL: Could it be used as a reception  
13 center even under the realism doctrine if the requisite of  
14 pertinencies weren't all there? I thought that the whole  
15 issue here was whether putting in certain structures or  
16 equipment was a violation of the zone laws. If that  
17 equipment isn't there when the emergency occurs, I don't see  
18 how the realism doctrine is going to help the utilization of  
19 that facility as a reception center even if the governor, as  
20 would be presumed, is prepared to do whatever is necessary.

21 MR. BACHMANN: Well, if we do apply the realism  
22 doctrine at that time, yes, that's quite correct. If at  
23 that time certain of the facilities have been removed and  
24 cannot be returned in time to be utilized. That's correct,  
25 we don't know if the judge is going to warn them to take



1 these things out permanently.

2 In other words, the -- from what I've been  
3 hearing, of course I'm not involve in that part of the case,  
4 in the state of New York, but what I've heard is that one of  
5 the proposed orders is that are prohibited from using this  
6 as a reception center in the event of a radiological  
7 emergency, that sort of thing, without, perhaps, without  
8 requiring the dismantling of the trailers and the  
9 facilities. We don't know that, that's the problem.

10 JUDGE ROSENTHAL: Well, I would be hopeful that  
11 judge would enter an order within a reasonable period of  
12 time and maybe that will answer all of the speculation that  
13 leads us to what she is going to direct.

14 MR. BACHMANN: Well, my suggestion, and I believe  
15 I'm trying to get back to answering your question as to what  
16 should be done, and I, or position is that a flat remand  
17 certainly at this time to the licensing board, would really  
18 be, I wouldn't want to say a waste of resources, but it  
19 would certainly use a lot of them for -- needlessly, to the  
20 extent that this issue could be briefed, and probably, and I  
21 would suggest affidavits submitted, so that this board would  
22 have an opportunity to have a feel for the loss of Belmore,  
23 what would that entail. These are the -- what has been  
24 decided already by this licensing board. Then we might have  
25 a more focused type of situation where this sort of

1 licensing board could look at it.

2 JUDGE ROSENTHAL: Why shouldn't the licensing  
3 board look at this issue in the first instance?

4 MR. BACHMANN: Are you saying that the issue could  
5 be briefed and all that?

6 JUDGE ROSENTHAL: Certainly it would be briefed,  
7 why shouldn't it be briefed before the licensing board?

8 MR. BACHMANN: Are you suggesting that this appeal  
9 board would send the court decision back to the licensing  
10 board?

11 JUDGE ROSENTHAL: Well a possibility would  
12 certainly be an order out of this board saying that there  
13 has been a new development since the licensing board's  
14 decision, a development that the licensing board recognized  
15 might occur, but it indicated that it didn't want to deal  
16 with unless an -- occurred. The dimensions of this new  
17 development are uncertain, sending it back to the licensing  
18 board to deal with it as you see fit, and one would hope you  
19 would get additional information along the way, at least as  
20 to what the state Supreme Court Justice is going to order.  
21 Why is it appropriate for it to do that rather than for us,  
22 isn't that the normal course of the judiciary, when you get  
23 a possibly significant development? I think most of public  
24 courts in that circumstance put it right back to the trial  
25 court? They said deal with it, there's been this new

1 development.

2 MR. BACHMANN: Phrased the way you have, it seems  
3 like it would be an appropriate manner of handling it.

4 JUDGE ROSENTHAL: You would phrase it differently?

5 MR. BACHMANN: No, no, it was the way you phrased  
6 it. My phraseology I don't think would work. The point, I  
7 guess, I was trying to make also though is that to the  
8 extent that this is -- does not effect, for instance we've  
9 got the four points on appeal, none of which seem to be  
10 effected by this development in the state court. That  
11 certainly can be decided by this tribunal without necessity  
12 of doing anything else. That's an important point I'd like  
13 to make. To the extent that there may be an effect by the  
14 judge in the State Supreme Court sending it in fact for the  
15 licensing board to determine the extent to which it effects  
16 its prior decision, and to take whatever steps necessary to  
17 gain more information, I would say that's an entirely  
18 appropriate way of doing it, to the extent that it would  
19 effect it.

20 There's no more on that. The planning basis is a  
21 word that has been flipped around so many times, I'm not  
22 even certain if anyone knows what it means any more.  
23 Planning basis is sort of a semi-term of art used by our  
24 emergency planning people in FEMA. It's a situation where  
25 you must have a plan and you must have so much in the way of

1 people and facilities to do certain things, it's not just  
2 the number of people, it could be a lot of other different  
3 things. I mean, it's not just the number of people you  
4 expect to ride to a reception center, it could be the number  
5 of trucks you need to do certain things. You just have a  
6 planing basis.

7 JUDGE MOORE: Prior to 1994, December 24 actually,  
8 I'm sorry of 1985, what number did the staff use as a  
9 planning base?

10 MR. BACHMANN: For what?

11 JUDGE MOORE: For monitoring?

12 JUDGE WILBER: II.J.12.

13 MR. BACHMANN: II.J.12, I don't think they  
14 actually had a number to tell you the truth. I believe what  
15 they did, and I was not on the case at the time, I was not  
16 involved in this particular type of situation, so I  
17 apologize for not being able to answer directly, but from  
18 what I understand, and given the range, what we do know  
19 about other plans, that II.J.12 was used in a -- I don't  
20 think they had a specific number. If someone came up with a  
21 number that looked reasonable, I believe that they probably  
22 looked at the reasonableness of it. But again, that is  
23 really a FEMA determination, also.

24 And of course, FEMA works with the staff, is not  
25 the staff, so I can't really speak to them.

1 JUDGE MOORE: Final call for the NRC, is it not?

2 MR. BACHMANN: That's correct.

3 JUDGE MOORE: So it's not really FEMA's  
4 determination, it's yours.

5 MR. BACHMANN: Well, we give them great deference,  
6 just as a licensing board.

7 JUDGE MOORE: Sounds to me like you're advocating  
8 that responsibility.

9 MR. BACHMANN: It's a situation where the on-site  
10 emergency planning was put into our bailiwick, and the off-  
11 site evolved upon FEMA, and that was decided --

12 JUDGE MOORE: Can you tell us what the historical  
13 number is for other plants?

14 MR. BACHMANN: No sir I can't.

15 JUDGE MOORE: Can you tell us what any other  
16 plants are doing in this regard, what their planning base  
17 is? We know from the record that 36 percent is 9 mile  
18 point, we don't know why, however. How about Salem right  
19 down the road?

20 MR. BACHMANN: Sir, I couldn't testify --

21 JUDGE MOORE: Give me a point?

22 MR. BACHMANN: No sir, I couldn't testify to that.  
23 However --

24 JUDGE WILBER: Could I take another attack on an  
25 item here? The board accepted that 20 percent value, but I

1 understood that they accepted it only if there was a clear  
2 concise communication with the public as I recall their  
3 words. And then they went on to say that they hadn't seen  
4 that yet, as I recall, or words to that effect.

5 Now, my question is, they didn't make that a  
6 condition for the license or anything, and it should just be  
7 some kind of a condition? Because it appears the board  
8 thought it was a necessary thing that was not there.

9 MR. BACHMANN: No I don't believe so. The board  
10 made that assumption that it would be there.

11 JUDGE WILBER: But based on their further thoughts  
12 there, that they were reasonable sure that it hadn't been  
13 there in the past, so how can they assume that?

14 MR. BACHMANN: Are you referring to its reference  
15 to the oral 5 exercise results?

16 JUDGE WILBER: I have not idea what it was  
17 referenced to, but they --

18 MR. BACHMANN: They indicated in the February 1988  
19 decision on the exercise that they were not too happy with  
20 what the board found in the way of emergency broadcast  
21 system, and I think that's the part you might be referring  
22 to.

23 JUDGE WILBER: It could well be. IBB 882.

24 MR. BACHMANN: That's correct. And of course that  
25 is also on appeal, and there's been a subsequent exercise,

1 and given the bounds of the issues presented to this  
2 particular licensing board that we're discussing here, that  
3 that was an assumption the board made, was not challenged.  
4 And in fact, it was not raised as an issue on appeal.

5 JUDGE ROSENTHAL: Do you agree with Mr. Christman  
6 that Belmore is now out of the picture, that there's no  
7 reason for explanation as to all of the traffic patterns.  
8 And the traffic pattern changes would be essentially  
9 insignificant?

10 MR. BACHMANN: The way I read the board's initial  
11 decision that's being on appeal right now, is that it agreed  
12 with the traffic experts of the staff and the applicants and  
13 that is the controlling factor of the traffic was as you  
14 came into the reception center. And the number of people  
15 that could be monitored. Because all the rest of it didn't  
16 really count.

17 JUDGE ROSENTHAL: So it doesn't matter whether  
18 these people were going to Belmore or whether they were  
19 going to Hicksville?

20 MR. BACHMANN: Well, what I'm saying is that the  
21 board made findings that from the time these people perhaps  
22 left their home, or certainly since they left the EPZ, and  
23 they're coming to the reception centers to be monitored,  
24 that the single over-riding factor was the speed at which  
25 they could process people in the reception centers --

1 JUDGE ROSENTHAL: They had to get there.

2 MR. BACHMANN: Right. But they would be queuing  
3 on the reception centers.

4 JUDGE WILBER: That's predicated I'm going to  
5 three centers and not two. Now this que would be longer  
6 than the two remaining one by whatever percentage it is  
7 here, but --

8 MR. BACHMANN: That's correct, which means that  
9 the queuing would be even more of a factor determining the  
10 capacity and the usabilities of the reception.

11 JUDGE WILBER: Yet the monitoring rate remains the  
12 same. So is it now queuing the controlling item or is it  
13 monitoring the controlling item?

14 MR. BACHMANN: Maybe I misspoke here. What I'm  
15 saying is that because of the speed at which people were  
16 monitoring, that traffic really was not an issue, it turned  
17 out not to be an issue until you got to the line of the  
18 reception center.

19 JUDGE WILBER: That's with three centers.

20 MR. BACHMANN: That's with three center.

21 JUDGE WILBER: Now you have all of those that were  
22 going to Belmore in the lines for the remaining two.

23 MR. BACHMANN: Therefore the queuing that  
24 situation is going to be even more so the controlling factor  
25 as far as traffic, and now what happens from the time the



1 person leaves their home to get to the reception center.

2 In other words, the capacity and the ability of  
3 the reception centers, numbers of people and all that sort  
4 of thing, is to a large part dependent, excuse me, let me  
5 back up for a second, the traffic concerns turn out to be  
6 not a concern, because when you got to the number of people  
7 involved, in other words, we were looking at traffic to see,  
8 can you get so many people to the reception centers and  
9 through the reception centers? And that's why we looked at  
10 traffic.

11 We found out that the traffic along the way was  
12 not the controlling factor, what was the controlling factor  
13 was getting through the reception center.

14 JUDGE ROSENTHAL: I don't know about controlling  
15 factor, but if all of the people are going through wherever  
16 they are at the time of the accident within the EPZ to the  
17 reception center which is at a considerable distance, have  
18 to go over some road to get there. Now the argument of Mr.  
19 Case, if I understood it correctly was that we will have  
20 three reception centers. You have traffic patterns to each  
21 of those reception centers. And now that you have two  
22 reception centers, so all of these people from these various  
23 locations within the EPZ, or going to reception centers over  
24 roads, but the traffic patterns are going to be somewhat  
25 different. And his suggestion as I understood it was, this

1 was something that would have to be explored on a remand.

2 Now, if I understood Mr. Christman correctly, he  
3 said that an important fact, the differences in traffic  
4 patterns and flow was a normal event to two reception  
5 centers as opposed to the three would not be significant.  
6 That was his argument. So what I was asking you was whether  
7 you agree with Mr. Christman that the impact upon traffic  
8 patterns and routes and all of that with everybody going to  
9 the two centers instead of the three, is sufficiently  
10 insignificant contrary to the suggestion of Mr. Case that's  
11 not something that would have to be explored.

12 MR. BACHMANN: I agree with Mr. Christman for the  
13 reasons that I said to Mr. Wilber. That is the concern of  
14 traffic is can you get enough people to the reception  
15 centers and process them? That's the reason you look at the  
16 traffic flows, or are there going to be any tremendous  
17 bottle necks --

18 JUDGE ROSENTHAL: Or -- that's right.

19 MR. BACHMANN: We've discovered over the course of  
20 the hearing with much testimony and much analysis and I  
21 presented that particular testimony like it was marked up  
22 from the staff, that that wasn't the problem, getting to the  
23 centers.

24 JUDGE ROSENTHAL: Why isn't it a problem?

25 MR. BACHMANN: The number of people that can be

1 processed in an hour, and the figures on page 531, is  
2 dependent on the ability of the monitoring station. And you  
3 would have basically, shortly after you started the 12 hour  
4 clock is that you're going to start forming lines of cars.  
5 So it really doesn't make any difference if people get stuck  
6 in bottle necks down the way, you're going to have this  
7 constant queuing situation throughout most of the --

8 JUDGE ROSENTHAL: You mean you're suggesting that  
9 they're going to be backed up from the reception center for  
10 45 miles into the area around the plant, is that it? And  
11 it's going to be sort of like the escalator, that they're  
12 going to move up one car at a time? Is that your scenario?

13 MR. BACHMANN: My scenario is there will be ques  
14 but certainly not in the distance of 45 miles. The queuing  
15 will begin shortly after we start the 12 hour clock running,  
16 I believe it was in an hour or so.

17 JUDGE ROSENTHAL: It is about 40 miles, isn't it,  
18 to these reception centers to the EPZ?

19 MR. BACHMANN: Not quite that far --

20 JUDGE ROSENTHAL: Well wait a minute, from the  
21 other side of the plant the EPZ portion and the other side  
22 of I guess if I'm right about my geography to the east of  
23 the plant on the island, how far is it from there to  
24 Hicksville? I though it was at least 40 miles?

25 MR. BACHMANN: Yes, from the other side.

1 JUDGE ROSENTHAL: Their people were considering  
2 that.

3 MR. BACHMANN: I guess what I'm getting at is  
4 you're going to have the same traffic patterns until you get  
5 to within a few miles of the reception centers, whether  
6 you've got Belmore there or not.

7 JUDGE ROSENTHAL: That's when they're going to  
8 branch out?

9 MR. BACHMANN: That's when they'll go either north  
10 or south. Now you're producing 500 some odd more cars an  
11 hour north instead of south. I believe I made a mistake --

12 JUDGE WILBER: Well, I have another question. The  
13 board seemed to rely on the staff testimony that the 12  
14 hours and I think it's I.J.12, I hope have the right NUREG  
15 0654 number. But they said that 12 hours had no bearing on  
16 health and safety as I recall. Now is this typical staff  
17 action that they will impose a condition like that which has  
18 evidently cost a fair amount of time and money here, where  
19 there's no health and safety benefits?

20 MR. BACHMANN: I wish --

21 JUDGE WILBER: What time is health and safety,  
22 when does it come into this thing?

23 MR. BACHMANN: I wish I had my witnesses' exact  
24 quote. From what I understand from what he told me was that  
25 it was not, we didn't look at 12 hours and come up with that

1 number because if you exceeded it you're going to get a  
2 certain amount of dose, and if you're in under it you're not  
3 going to. Obviously they want to be able to get people in  
4 and out and monitored, and check to see whether they've got  
5 contamination.

6 But it was a figure that was arrived at. But of  
7 course 0654 and a lot of these things were designed by  
8 committees, so you can imagine that. It had of course, the  
9 effect on public health and safety, otherwise it wouldn't be  
10 in there, but on the other hand, to come up with a  
11 particular number, there was nothing magic about using dose  
12 calculations to come up with 12 hours, no. That was done to  
13 ensure that when people were planning that they marshalled  
14 enough resources to be able to do what they were supposed to  
15 do within what we considered a reasonable amount of time.  
16 And also we wanted to make sure that people weren't kept  
17 waiting for a couple of days, which I think was an example  
18 cited by the witness at one point.

19 Since I have over-stepped my time, I'd just like  
20 to make one more last statement, that --

21 JUDGE MOORE: A quick question on your witness's  
22 study on the footprint, and who would be at risk.

23 MR. BACHMANN: Yes sir.

24 JUDGE MOORE: When that was done from his  
25 testimony I can't tell, nor can I tell with any degree of

1 accuracy from the licensing board's decision, that when each  
2 slice of the pie is being considered, did it take into  
3 account that 22 and a half degree segment on either side of  
4 the primary segment for his footprint?

5 MR. BACHMANN: To the best of my recollection it  
6 did.

7 JUDGE MOORE: It did.

8 MR. BACHMANN: But that's just to my recollection  
9 at this point, without looking back at the figures I can't  
10 tell you.

11 JUDGE WILBER: Also in his testimony earlier in  
12 his analysis, it appeared to me that he was weighing this  
13 thing by predominant wind directions, or by percentage of  
14 wind directions. Now does this apply in every instance?  
15 Which would mean that you would never have 100 percent of  
16 the population from any sector effected. It would  
17 necessarily be less than 100 because you don't have the wind  
18 blowing in one direction 100 percent of the time.

19 MR. BACHMANN: That's probably a true statement.  
20 That it would not in that way --

21 JUDGE WILBER: But it would not blow in one  
22 direction 100 percent of the time in an accident. As I read  
23 it they took a clock that goes over the years, evidently,  
24 and it blows to the north/northeast x percent, and maybe to  
25 the east/northeast a wide percent, and they weighted his

1 number of people that he would consider by these values.

2 MR. BACHMANN: That's correct, but we're also  
3 dealing with a time situation here. It's been estimated  
4 that the EPZ would be evacuated in approximately six hours  
5 in good weather. So over a certain number of hours, you  
6 would just have -- you would take the probability of the  
7 wind blowing a certain direction.

8 What I'm saying over a whole year --

9 JUDGE WILBER: But his analysis did not consider  
10 that. That's the point I'm taking. He weighted these by  
11 the wind direction.

12 MR. BACHMANN: That's correct.

13 JUDGE WILBER: Which would reduce the number of  
14 people would be in any one of his footprints.

15 MR. BACHMANN: Well he also, for instance, out of  
16 the conservatism that nobody left. In other words, if there  
17 were a plant accident he weighed that against the idea that  
18 he assumed that everybody just stayed there on their front  
19 yards and waited for the plume to come over, rather than  
20 getting in their car and going away. So there were  
21 conservatisms back and forth on that particular calculation.

1           MR. BACHMANN: I would just like to make one last  
2 statement and that is the reason that the issue of the  
3 monitoring population planning base we have got here is so  
4 long and convoluted. I am not even certain if anyone can  
5 follow it anymore.

6           I do know at one point the Appeal Board felt it  
7 wasn't even a proper issue to be heard. Then the Licensing  
8 Board convinced the Appeal Board and we went back and forth  
9 a couple of times.

10           But the real basis of it is, the Licensing Board  
11 said there was no evidence to accept 20 per cent. Now we  
12 have got lots of evidence. The Intervenors are unhappy that  
13 the Board, the Licensing Board, weighed the evidence and  
14 found out that the Applicant's evidence and that presented  
15 by FEMA and the staff outweighed their evidence.

16           To say that this is just based on sheltering data,  
17 that is the only, what I consider a good argument, because  
18 they used it at the upper end of the sheltering data to take  
19 into account the fact that we don't have any data for  
20 people, for large radiological emergencies such as what we  
21 are posing here.

22           Therefore, it has to be predictive. The only  
23 evidence that the Intervenors brought in on this case  
24 essentially was their monitoring shadow concept based on  
25 public opinion polls.



1           The Applicant had previously used public opinion  
2 polls and determined that they didn't work. There were at  
3 least two psychologists who testified as to the invalidity  
4 of public opinion polls as, of course, the Intervenors  
5 brought in their people that said they are wonderful.

6           So there was the weight of the evidence and we had  
7 experts differing upon the validity of these polls and the  
8 Board and the Staff's view came down and made the right  
9 decision.

10           Thank you very much.

11           JUDGE MOORE: Rebuttal?

12           MR. CASE: Given the Board's patience here with  
13 counsel I intend to be extremely brief in rebuttal, and just  
14 raise some of the points almost in a factual manner which  
15 the Board has discussed with other counsel.

16           The Board has indicated a concern about what the  
17 judgment would be of the New York Supreme Court, and I have  
18 here copies I can distribute to the Board now or later of  
19 LILCO's proposed judgment in that case.

20           The proposed judgment of LILCO says, unless  
21 authorization is maintained, this is what the Court would  
22 order.

23           "It is hereby immediately and permanently  
24 restrained and enjoined from using the premises identified  
25 in the Complaint as an emergency evacuation, radiological

1 assessment, decontamination and reception center for  
2 purposes or vehicles in the event of a radiological  
3 emergency at the Shoreham Plant."

4 For a minimum, we know that Order is going to be  
5 entered.

6 JUDGE ROSENTHAL: Do you have any idea when that  
7 Order is likely to be issued?

8 MR. CASE: I really can't -- obviously, all  
9 parties followed this case to some degree. The Judge was  
10 expeditious in resolving the cross motions for summary  
11 judgment.

12 I think it took her, once it was fully briefed,  
13 less than 90 days to actually reach a decision on the  
14 merits. So, since the two proposed Orders are before her  
15 now, I would assume it would be fairly quickly.

16 JUDGE ROSENTHAL: Well, obviously, Summary is going  
17 to supply us with the Order when it is in fact issued.

18 I have a question or two for you. One of them is,  
19 your adversarie: particularly Mr. Christman, suggest that  
20 while it is true that Mr. Krimm did not testify himself that  
21 there is an abundance of expert testimony coming from both  
22 Applicant and Staff witnesses which support the Krimm  
23 analysis and conclusions.

24 With the consequence that what your endeavoring to  
25 do is to challenge the Licensing Board decision which had an

1 adequate evidentiary foundation. So I would like your  
2 response to that.

3 I would also like you response to the suggestion  
4 that the difference in traffic patterns that would flow from  
5 the elimination of Belmore is essentially no never-mind.

6 So that it isn't the kind of concern that you  
7 suggested it was in your opening argument.

8 MR. CASE: Let me respond to your second question,  
9 first.

10 I always enjoy Mr. Christman's argument and he is  
11 a very articulate man, but that is exactly what the Board  
12 heard today here, was argument. There is no evidence on the  
13 record as to what would happen with two reception centers,  
14 where the traffic would go.

15 Our point is exactly that which I believe Mr.  
16 Wilber made which was, we think at some point it is likely,  
17 possible, we don't know. Because we don't know what is  
18 going to happen. We haven't seen anything.

19 That queues will be the determining factor.  
20 Queues from one plant will interrupt the flow to the other  
21 plant.

22 So, until we know what is going to happen, how  
23 resources are going to be divided up, how the populace will  
24 be divided up -- Mr. Christman can describe various routes  
25 to the reception centers for a long time, but we are

1 operating back in the speculation.

2 One other point that gets overlooked here is that  
3 these reception centers have a decontamination function as  
4 well as a monitoring function. The trailer which was at  
5 Belmore is now no longer available.

6 Are they going to send one up to, this additional  
7 trailer to Hicksville? Is there room there?

8 Are they going to send it to Roslyn? Is there  
9 room there?

10 Is it going to go to a third facility?

11 Being facetious here, are they going to split it  
12 in half and send the men's side to one? We just don't know  
13 at this stage.

14 And that is the reason we believe a remand is  
15 appropriate.

16 Now responding to the question of the Krimm  
17 memorandum. Now matter who testifies about the Krimm  
18 memorandum, the basic fact is that memorandum is based on  
19 sheltering data.

20 Mr. Christman referred to an exhibit which goes  
21 over that data. For the Board's convenience, it is Suffolk  
22 County Exhibit No. 33, which lists the data, or some of the  
23 data apparently considered in the Krimm memorandum.

24 Including Mississagwa train derailment, which was in 1979.

25 In point of fact, this is the exact same data base

1 the Board rejected before, and what gets neglected here  
2 during this argument and discussion -- and I am sure Mr.  
3 Zahnleuter and his witnesses would be offended by this -- is  
4 that the New York State Radiological Emergency Preparedness  
5 Group, another group of professional emergency planners,  
6 testified that they believe 100 per cent of the EPZ was the  
7 appropriate planning basis.

8 Now this also goes to the question raised by  
9 Chairman Moore, which is, do we have any historical data  
10 here? And for the Board convenience, at pages 44 and 45 of  
11 the government's proposed findings, we submit the data from  
12 the Ginna, the Nine Mile Point, Fitzpatrick, and the Indian  
13 Point Plant.

14 The citations of record are there, and essentially  
15 it is emergency planning personnel and the counties  
16 responsible for responding to emergencies at two of those  
17 sites, Ginna and Nine Mile Point, certified to FEMA that  
18 they had sufficient numbers of monitoring personnel to  
19 monitor 100 per cent of the EPZ population in the J.12  
20 limits.

21 Now it is true that at Indian Point there is not  
22 100 per cent. But at those two plants, there is 100 per  
23 cent and there is evidence in the record.

24 We believe that what happened here, there was no  
25 weighing of evidence. There was no preponderance finding.

1 There was simply an acceptance of the Krimm memorandum,  
2 which is based on data we don't believe and which we believe  
3 the Board has held simply doesn't speak to the question of  
4 how many people we should plan for.

5 JUDGE MOORE: Can you explain for me, and I have  
6 obviously missed something in all of this discussions in  
7 these briefs, on what the logical connection between meeting  
8 sheltering and meeting monitoring is? So why do you use  
9 sheltering as any kind of a basis to determine the latter?

10 MR. CASE: That has been the government's point at  
11 the beginning of this hearing. There is no logical  
12 connection between the two.

13 It is an invalid data base for the conclusions  
14 that are reached. There is no logical nexus between the  
15 number who need sheltering and the number who need  
16 monitoring.

17 JUDGE MOORE: Because the function, the reason you  
18 go, is totally different?

19 MR. CASE: Exactly. You go for sheltering because  
20 you can't afford a hotel, you don't have relatives nearby.  
21 That is why you go for sheltering.

22 You go for monitoring either because you are told  
23 to go for monitoring, because you might be exposed to the  
24 plume EP2, or because you have fears --

25 JUDGE ROSENTHAL: Everybody that goes for

1       sheltering gets monitored whether he or she wishes it or  
2       not, is that not true?

3               MR. CASE: Well, I say --

4               JUDGE ROSENTHAL: So that the sheltering is a  
5       floor for the number of people that are monitored, I would  
6       think.

7               MR. CASE: We would agree to that, and obviously  
8       there may be a person who doesn't want to be monitored.  
9       But, yes, we believe that sheltering in fact operates as a  
10      floor to this, and really doesn't provide the logical basis  
11      for any sort of conclusions about who will be there for  
12      monitoring.

13              JUDGE ROSENTHAL: But the fact remains, does it  
14      not, that we are really again in the world of total  
15      uncertainty. I mean, there isn't any, is there, pragmatic  
16      basis for determining how many people are likely to turn up  
17      for one reason or another for monitoring in the event of a  
18      radiological emergency?

19              We have no prior experience. Three Mile Island, I  
20      suppose, is the closest but it doesn't, as far as I know,  
21      provide a very firm basis.

22              So this is totally in the realm of speculation.  
23      Is that not so?

24              MR. CASE: Well, I --

25              JUDGE ROSENTHAL: And, if it isn't so, you give me

1 the quasi-scientific or basis for making an informed  
2 estimate.

3 MR. CASE: All right. Like I always say, I don't  
4 like to tell other people how to run their case, but as I  
5 tried to indicate to the Board before, we can start off with  
6 the basic approach to who would require monitoring. Who  
7 would be ordered to monitoring?

8 How can we plan in the likelihood of that event?

9 The Hulman analysis was a start. Now, we wouldn't  
10 concede that the Hulman analysis is accurate or conservative  
11 at all, but there are computer codes that can take into  
12 account wind shift. You can get a very, if done correctly,  
13 approach to the number of people who would be required to  
14 have monitoring and a conservative estimate there.

15 On top of that, you would want to calculate -- and  
16 obviously, this can't be done on a mathematical certainty --  
17 the number of people who are likely to go for monitoring  
18 even though they are not in that group that is ordered for  
19 monitoring.

20 JUDGE ROSENTHAL: But how do you arrive at a  
21 figure? Is this what, a psychologist's appraisal of a  
22 number of people that would be effected by a fear factor, or  
23 what? I mean, how do we get to this?

24 MR. CASE: I think you would have to combine both  
25 a quantitative and a qualitative approach. The quantitative



1 approach being some sort of survey to try to identify the  
2 characteristics of people who would act this way. This is  
3 done in civil litigation all the time when you try to  
4 predict who on a jury array will vote your way.

5 JUDGE ROSENTHAL: Sometimes, you are dead wrong.

6 MR. CASE: Oh, yeah. Well, that is always a risk,  
7 but we are trying to reach some sort of determination as to  
8 some --

9 JUDGE MOORE: Was the Krimm memorandum fortuitously  
10 issued for this case?

11 MR. CASE: Well, we cast some doubt upon the  
12 circumstances of issuance.

13 As I recall the FEMA testimony, it was that one of  
14 the FEMA witnesses actually requested this memorandum  
15 because, as I recall, he said, "We knew we would be looking  
16 at this issue."

17 He said, "We would be right back in this courtroom  
18 on this issue, again."

19 And so in our belief, there is some problem with  
20 the way that it was issued and that it was directed towards  
21 this case. And it was very hastily done, as I recall.

22 There is no attempt at studying the issue in the  
23 way we believe it should be studied before the Krimm  
24 memorandum was issued.

25 I would just like to conclude on one point that

1 was asked of Mr. Christman. What possible hearings are  
2 there below?

3 The government would take the position that we  
4 can't yet say with any certainty that there will be no  
5 hearing on the realism issues. We will have to wait for the  
6 decision of the Board on that.

7 It also the government's position that there is  
8 likely to be a hearing on the recent exercise that was  
9 conducted for the Shoreham Plant.

10 JUDGE WILBER: I missed that. Did you say there  
11 is a potential for hearings on the realism?

12 MR. CASE: Well, the government's position is, we  
13 just don't know. We are not in the habit of predicting how,  
14 with any degree of certainty, how the Licensing Board will  
15 determine what it is going to determine.

16 Until we see an Order, we would just simply  
17 indicate that it is a possibility.

18 JUDGE MOORE: Mr. Christman has said that the  
19 Licensing Board has stated that it won't go to hearing. Is  
20 that your recollection?

21 MR. CASE: I do not work on that proceeding. Mr.  
22 McMurray is a little more familiar with that.

23 JUDGE MOORE: All right.

24 MR. CASE: But our understanding is, there is  
25 still the possibility of a hearing.

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23 JUDGE MOORE: All right.

24 MR. CASE: But our understanding is, there is  
25 still the possibility of a hearing.

1 Thank you.

2 JUDGE MOORE: Thank you. The case will stand  
3 submitted.

4 (Whereupon, there being nothing further, at  
5 4:05 p.m., the meeting of the Atomic Safety and Licensing  
6 Appeal Board was concluded.)

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1 CERTIFICATE

2  
3 This is to certify that the attached proceedings before the  
4 United States Nuclear Regulatory Commission in the matter  
5 of:

6 Name: LONG ISLAND LIGHTING COMPANY

7  
8 Docket Number: 50-322-OL-3

9 Place: Bethesda, Maryland

10 Date: September 14, 1988

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

18 is/ Margaret Daly

19 (Signature typed):

MARGARET DALY

20 Official Reporter

21 Heritage Reporting Corporation

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25  
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