

ORIGINAL

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the matter of:

DUKE POWER COMPANY, et al

(Catawba Nuclear Station,
Units 1 & 2)

Docket No. 50-413 OL
50-414 OL

Location: Charlotte, N. C.

Pages: 2566 - 2778²

Date: Friday, May 25, 1984

*Please return original to Jack Whittemore,
E/W - 439 - Distribution: TR 01
o/i*

TAYLOR ASSOCIATES

Court Reporters
625 I Street, N.W. Suite 1006
Washington, D.C. 20006
(202) 293-3990

8405310206 840525
PDR ADOCK 05000413
T PDR

SueT

1 UNITED STATES OF AMERICA

2 NUCLEAR REGULATORY COMMISSION

3 BEFORE THE ATOMIC SAFETY & LICENSING BOARD

4 -----X
 5 In the Matter of: :
 :
 6 DUKE POWER COMPANY, et al., : Docket Nos. 50-413 OL
 : 50-414 OL
 7 (Catawba Nuclear Station, :
 Units 1 and 2) : ASLBP No. 81-463-06A-OL
 :
 9 -----X

11 BB&T, Fourth Floor
 12 112 South Tryon Street
 13 Charlotte, North Carolina 28284

14 Friday, May 25, 1984

15 The hearing in the above-captioned matter was
 16 convened, pursuant to recess, at 9:00 a.m.

17 BEFORE:

18 MORTON B. MARCULIES, Chairman
 19 Atomic Safety & Licensing Board Panel
 20 U. S. Nuclear Regulatory Commission
 Washington, D. C. 20555

21 FRANK F. HOOPER, Member
 22 Atomic Safety & Licensing Board Panel
 23 U. S. Nuclear Regulatory Commission
 Washington, D. C. 20555

24 ROBERT M. LAZO, Member
 25 Atomic Safety & Licensing Board Panel
 U. S. Nuclear Regulatory Commission
 Washington, D. C. 20555

1 **APPEARANCES:**

2 **On behalf of Applicants, Duke Power Co., et al:**

3 J. MICHAEL MC GARRY, Esq.
4 MARK S. CALVERT, Esq.
5 ANNE W. COTTINGHAM, Esq.
6 Bishop, Liberman, Cook, Purcell & Reynolds
7 1200 Seventeenth Street, N.W.
8 Washington, D. C. 20036

9 ALBERT V. CARR, JR., Esq.
10 RONALD V. SHEARIN, Esq.
11 Duke Power Company
12 422 South Church Street
13 Charlotte, North Carolina 28242

14 **ON BEHALF OF THE NRC STAFF:**

15 HENRY J. MC GURREN, Esq.
16 GEORGE JOHNSON, Esq.
17 Office of the Executive Legal Director
18 U. S. Nuclear Regulatory Commission
19 Washington, D. C. 20555

20 **On behalf of the Intervenor, Palmetto Alliance:**

21 ROBERT J. GUILD, Esq.
22 Post Office Box 12097
23 Charleston, South Carolina

24 **On Behalf of Intervenor, Carolina Environmental
25 Study Group:**

JESSE RILEY
854 Henley Place
Charlotte, North Carolina 28207

SueT

C O N T E N T S

VOIR

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	WITNESSES		DIRECT	CROSS	REDIRECT	RECROSS	DIRE	BOARD																
	Leonard Soffer)																							
	James E. Fairobent)																							
	Perry Robinson)	2569	2574	2693	2695																			

EXHIBITS

MARKED

RECEIVED

NRC Staff Testimony of
Messrs. Soffer, Fairobent,
and Robinson
Staff Exhibit EP-5

2573

2573

#1-1-SueT,

1 JUDGE MARGULIES: Please come to order. We
2 will continue with Staff's case on Contention 11.

3 MR. MC GURREN: Thank you, Your Honor. The
4 Staff calls Leonard Soffer, James E. Fairbent and
5 Perry Robinson. Your Honor, these witnesses have not
6 been sworn.

7
8 JUDGE MARGULIES: Would you please stand
9 and raise your right hands?

10 (The witnesses are sworn by Judge Margulies.)
11 Whereupon,

12 LEONARD SOFFER,

13 JAMES E. FAIROBENT,

14 -and-

15 PERRY ROBINSON

16
17 were called as witnesses on behalf of the Nuclear Regula-
18 tory Commission Staff and, having first been duly sworn,
19 were examined and testified as follows:

20 DIRECT EXAMINATION

21 BY MR. MC GURREN:

22 Q Gentlemen, do you have before you a document
23 entitled "NRC Staff Testimony of Leonard Soffer, James E.
24 Fairbent and Perry Robinson on Contention 11?"
25

INDE XXXXXX

#1-2-SueT,

A (Witness Soffer) I do.

(Witness Fairbent) I do.

(Witness Robinson) I do.

Q This is dated April 16, 1984; is that correct?

A (Witness Soffer) That's correct.

(Witness Fairbent.) That's correct.

(Witness Robinson) That's correct.

Q Do you have any corrections to this document?

A (Witness Soffer) I have a few corrections.

On Page 7, in the sixth line from the top, the line that begins "consequences" the last word in that line, "NRC" should be stricken and replaced by "AEC."

In the very next line, the last words "February 1983 (NUREG 0954)" should be stricken and replaced by "October 12, 1973."

In the response to Answer Number 10, the third line of that response that begins "about" the numeral "1.3" should be stricken and replaced by "4.8."

In the same line, the numeral "0.02" should be stricken and replaced by "0.3."

In the very next line, the word "well" should be stricken. That completes my corrections.

#1-3-SueT1

1 MR. MC GURREN: Your Honor, let me just state
2 for the record that the corrections made to Page 7 were
3 forwarded by me to the Board and the parties last week.
4

5 BY MR. MC GURREN: (Continuing)

6 Q Are there any other corrections to this
7 testimony?

8 A (Witness Robinson) I have one correction.
9 On Page 22, five lines from the top of the page --

10 Q Would you wait a second, please? That was
11 five lines from the top?

12 A Five lines from the top of the page, insert
13 after "Fort Mill" at the end of the sentence, it should
14 read "all but Fort Mill and Tega Cay."
15

16 That's the only correction that I have.

17 Q Did you -- the middle of the second full --

18 JUDGE MARGULIES: Could you give us that again?

19 JUDGE HOOPER: What was the word?

20 WITNESS ROBINSON: Inserted after "Fort Mill"
21 should be "and Tega Cay."
22

23 BY MR. MC GURREN: (Continuing)

24 Q Does that require a change in the next
25 paragraph?

#1-4-SueT,

1 A No, it does not. The six jurisdictions are
2 still jurisdictions within the EPZ boundary.

3 Q That's still a correct statement?

4 A That's correct.

5 Q With these corrections -- oh, I'm sorry.
6 Mr. Fairobent.

7 A (Witness Fairobent) I have two corrections
8 to make. One is on Page 1 in response to Question 2,
9 Line 2. The "Meteorologist" should be replaced with
10 "Meteorology."
11

12 And on Page 13, in the seventh line from the
13 top, the year "1974" should be 1975."

14 And that's all my corrections.

15 Q With these corrections -- and I address this
16 question to the entire panel -- do you adopt this testimony
17 as your testimony in this proceeding?
18

19 A (Witness Soffer) I do.

20 (Witness Robinson) I do.

21 (Witness Fairobent) I do.

22 Q If I were to ask you these questions as set
23 forth in this document, would your answers be as set
24 forth in this document with the corrections you have
25

#1-5-Sue7

indicated?

2

A (Witness Soffer) Yes.

3

(Witness Fairbent) Yes.

4

(Witness Robinson) Yes.

5

6

7

8

9

10

11

12

13

14

INDEXXX

15

16

17

18

19

20

21

22

23

24

25

MR. MC GURREN: Your Honor, at this point I ask that this document consisting of 25 pages of testimony and Attachment 1, and the attached professional qualifications of each of these witnesses, be marked as Staff Exhibit EP-5 and be received into evidence.

JUDGE MARGULIES: Is there any objection?

(No reply.)

It will be so received.

(The document is marked Staff Exhibit EP-5 and was received in evidence.)

MR. MC GURREN: Your Honor, the witnesses are available for cross-examination.

JUDGE MARGULIES: You may begin your cross-examination.

MR. RILEY: Mr. Chairman, would you tell us what our total times for Intervenors will be? Will it be two hours and fifteen minutes?

#1-6-SueT,

JUDGE MARGULIES: That is correct.

CROSS-EXAMINATION

BY MR. RILEY:

INDEXXX

Q I would be pleased, Mr. Soffer, if you would tell us about the process of making the determinations that are reflected in your combined testimony today, specifically this Catawba case.

When was the position taken by the Staff determined?

MR. MC GURREN: Your Honor, I hate to start off right away with an objection, but this question seems to be so broad that I don't think we can get a responsive answer.

And I object, therefore, on the form of the question.

JUDGE MARGULIES: Well, number one, you have two questions there, Mr. Riley. So, let's start with one and develop your line of questioning.

MR. RILEY: All right.

BY MR. RILEY: (Continuing)

Q The second part of my question was meant to help you in your response. I'm interested in the process

#1-7-SueT,

1 by which the position taken by the Staff was arrived at.
2 And I assume that more people were involved than the
3 three of you who are testifying as a panel.

4 And I know you are part of a large organiza-
5 tion. What I'm trying to see is the interrelations be-
6 tween yourselves and that organization and the influences
7 of other people and the dictum within the NRC in the in-
8 put to the output that you are making at this point.

9
10 Is that reasonable clear to you, Mr. Soffer?
11 First of all, do you understand what I am talking about?

12 A (Witness Soffer) Not entirely, Mr. Riley.

13 MR. MC GURREN: And, Your Honor, again I
14 object. Just for one, I'm not clear what position Mr.
15 Riley is making a reference to.

16
17 JUDGE MARGULIES: Was there a point of de-
18 parture, Mr. Riley? Have you taken another position
19 in the motion or something of that sort?

20 MR. RILEY: Not at all. Basically, the
21 question, Judge Margulies, is this. I want to determine
22 their degree of independence in making the judgments
23 that are reflected in their testimony, the degree to
24 which they are constrained by factors within the
25

#1-8-SueT

organization by which they are employed.

2 JUDGE MARGULIES: Well, why don't you ask it
3 more directly?

4 MR. MC GURREN: Your Honor, I think it might
5 be helpful if Mr. Riley can make reference to the
6 particular aspects of the testimony and formulate his
7 questions based upon the direct testimony.
8

9 BY MR. RILEY: (Continuing)

10 Q Well, specifically it's your conclusion that
11 as of the present time southwest Charlotte should not
12 be included in the EPZ?

13 And there are factors that entered into
14 arriving at that decision. What I'm trying to do is
15 find out the factors which were made by you witnesses,
16 factors which were not made by you.
17

18 And I would be appreciative if you would tell
19 us.

20 A (Witness Soffer) That's a very broad question.
21 I will try to summarize it and then perhaps see if there
22 is any kind of elaboration that you would basically like
23 to know. The factors that were not determined by us as
24 a panel were the recommendations in 0396 that formed the
25

#1-9-SueT,

basis for the Commission's regulations on the size of
the emergency planning zone and --

Q Let me interrupt for just a moment. Did you
contribute to 0396?

A I was not a member of the Task Force, but I
contributed in a peripheral sort of way.

Q And I would like to ask also Mr. Fairobent
if he contributed in the sense you have just described?

A (Witness Fairobent) No, sir, not to 0396.

Q And Mr. Robinson?

A (Witness Robinson) No, sir.

Q Thank you.

A (Witness Soffer) To continue with my summariza-
tion, we were -- the elements that we did not contribute
to or were bound by was essentially the recommendations
in 0396, and the regulations regulations that discuss the
basis for the size of the emergency planning zones.

The elements that we are responsible for and
did contribute to essentially is a determination that
the situation, that is the site specific conditions, at
Catawba generally met those requirements and the Commission's
regulations.

#1-10--SueT

1 Q Now, Mr. Soffer, if you were to be asked to
2 characterized yourself, would you say that you are a
3 scientist?

4 A I have some training in the physical sciences,
5 yes.

6 Q And in that sense you are a scientist?

7 A Yes.

8 Q Would you want to add any other descriptive
9 terms which would characterize what you contribute in
10 your job performance?

11 Are you an administrator, for example?

12 A I am a supervisor. Administrator seems to
13 glorify the title perhaps.

14 Q But you have managerial responsibilities?

15 A I do, sir.

16 Q Now, Mr. Fairbent, how would you characterize
17 yourself?

18 A (Witness Fairbent) I am a Staff scientist.

19 Q You are a scientist?

20 A (Witness nodded in the affirmative.)

21 Q Mr. Robinson?

22 A (Witness Robinson) I would characterize myself

#1-11-SueT

1 at the present time as a scientist.

2 Q Is it true that scientists in their work and
3 in their findings -- may I use the word "notorious" --
4 are notorious for making independent judgments, though
5 there is a reliance on the literature nevertheless there
6 are many disputes on occasion?
7

8 Would you say that's correct?

9 A (Witness Soffer) It has been known to happen.
10 It is typical of the scientific type of discipline that
11 dissenting opinions arise, of course.
12

13 Q Is it true that you gentlemen are working in
14 a frame of reference?
15

16 MR. MC GURREN: Your Honor, I'm going to
17 object to that question as being too vague.

18 JUDGE MARGULIES: I don't think he completed
19 his question.

20 MR. RILEY: All right.

21 BY MR. RILEY: (Continuing)

22 Q Would it be true then that you gentlemen are
23 working within some prescribed limits, namely the doctrines,
24 for example, NUREG 0396?
25

A (Witness Soffer) We have guided ourselves by

#1-12-SueT,

1 the principles of 0396 and the Commission's regulations
2 as I described.

3 Q That is right. And is it conceivable that
4 one of you might find yourself in dispute with the guide-
5 lines of 0396 as scientists?

6 A Are you asking me?

7 Q I'm asking each of you, but I was looking at
8 you at the moment, Mr. Soffer.

9 A It's conceivable in a hypothetical sense.
10 However, I would not hesitate to say that I'm in total
11 agreement with the principles of 0396.
12

13 end #1

14 Joe flws
15
16
17
18
19
20
21
22
23
24
25

2-1-Wal

1 Q Mr. Robinson?

2 A (Witness Robinson) I concur.

3 A (Witness Fairbent) I concur.

4 Q Now, in the hypothetical case that you find
5 yourself in disagreement with what appeared to be the
6 application of the principles of 0396, what would be your
7 response?

8 A (Witness Soffer) My response to what?

9 Q Your response to your behavior in finding yourself
10 as a scientist not in accord with the guidelines provided
11 by 0396?

12 MR. MCGURREN: Your Honor, I object. There is
13 no factual foundation for that hypothesis.

14 MR. GUILD: It is not necessary that there be
15 a factual foundation for that question. It is clearly
16 a hypothetical. I think it is appropriate to understand
17 the gentleman is clear in saying support of 0396 in
18 principle, that may be probed more deeply, but as a foundation
19 matter, if he did dispute 0396 guidance, and he said: Well,
20 I wouldn't do anything about it anyway, because I am
21 constrained by the institution I work for, that would bear
22 on the validity of conclusions he might draw generally.

23 I don't think it would be necessarily a factual
24 requirement.
25

JUDGE MARGULIES: Mr. Riley did not state the

question as a hypothetical.

BY MR. RILEY: (Continuing)

1 Q All right. Let's state that as a hypothetical.

2
3 A (Witness Soffer) Could you repeat the question
4 again, please.

5 Q Yes. I said if you followed your present
6 conclusion in this matter, or any matter, were at variance
7 with the guidelines of 0396, what would you do?

8 A I would try to ascertain whether there was a
9 general validity for my opinion as opposed to other peoples
10 opinions, and assuming that I was convinced that my opinions
11 were correct, I would try to work within the Staff procedures
12 that are available and that are open to try to change and
13 alter the regulatory procedures to convince other members
14 of the staff that my position was a reasonable one, or a
15 correct one.
16

17 Q And continuing with the hypothetical, you found
18 yourself after appreciable effort, and a reasonable period
19 of time, unable to do so, what would you do?
20

21 A That would depend upon a number of circumstances
22 which become at that point so hypothetical that it is
23 difficult for me to speculate on that.

24 Q One possibility would be that you continue in your
25 work and submit to the situation. Another possibility would
be that you would resign, and so forth.

1 MR. MCGURREN: Your Honor, I object. I think
2 the witness made clear at this point in his hypothetical
3 that he is speculating. Therefore, I am objecting on the
4 basis that the question calls for speculation.

5 MR. GUILD: The witness had some difficulty
6 because of the hypothetical. Mr. Riley put specific
7 alternatives to him. The witness can either say: Yes,
8 those are realistic alternatives, or they are not realistic
9 alternatives, or they are speculative, now that his counsel
10 has supplied him with that term. But the witness should
11 answer the question, and not counsel.

12 JUDGE MARGULIES: This is cross examination. I
13 will permit the question, but time is running, and I don't
14 know where we are going Mr. Riley in terms of getting to the
15 meat of the testimony. This is your time for cross examina-
16 tion.

17 MR. RILEY: I realize that, Judge Margulies.
18 What I am trying to do is sort of set the general framework
19 for proceeding in the testimony. I believe this is relevant
20 to it.

21 JUDGE MARGULIES : You may answer the question.

22 WITNESS SOFFER: And your question again is: What
23 would I do --
24

25 BY MR. RILEY: (Continuing)

Q -- with respect to three possible options that you

have?

1 A I cannot tell you at this time what I would do.
2 I think it would depend very, very much on the nature of
3 the circumstances.

4 Q Really, I should have said would you recognize
5 these three options, one of which was to go along without
6 further protest, another which was to resign -- just those
7 two. Are they not possible options?

8 A I would say they are among possible options, but
9 I would not say they were exhaustive, and possibly not even
10 illustrative of the type of options that might be available.

11 Q Would you be able to suggest other options?

12 A Of course. There are procedures within the Staff
13 where I might be able to write dissenting opinions. I could
14 write memoranda to various supervisory groups. I could, in
15 fact, talk to each and every one of the Commissioners,
16 including the Chairman; there are many options available.

17 Q Thank you. That is a satisfactory answer. That
18 is what I wanted to know. How about you, Mr. Robinson? Do
19 you concur?
20

21 A (Witness Robinson) Yes, I would.

22 Q And you, Mr. Fairbent?

23 A (Witness Fairbent) Yes, I would.

24 Q Now, in the many reviews which you have conducted,
25 I believe you mentioned something like twenty reviews?

2-5-Wal

1 A (Witness Soffer) I believe that is what my
2 professional qualifications stated, yes, sir.

3 Q Have at any time you recommended an extension
4 of the EPZ beyond ten miles?

5 A The occasion has never arisen in the reviews
6 that I have conducted, but the answer is, no.

7 Q Same question to Mr. Robinson?

8 A (Witness Robinson) Yes, I have.

9 Q Would you tell us about it, please?

10 A (Witness Robinson) Give me just a moment. Another
11 power plant that I have assigned to me is the Wolf Creek
12 plant in Kansas, and recently there was some problem with
13 a small community. I think the name was Waverly. Waverly,
14 Kansas, that was on the boundary line of the ten mile --
15 approximate ten mile EPZ radius, and the local communities
16 was considering deleting that small town completely from
17 the EPZ.

18 The EPZ line ran substantially through the
19 middle, or three-quarters of the town, and it was my
20 recommendation, which I have a memorandum here that I
21 submitted to my supervisors, recommending the inclusion
22 of the rest of that community, which amounted to a population
23 of about seven thousand people.

24 Q May we see the memorandum, please? And while
25 we are doing this, Mr. Fairbent, have you been in a

position of either making or not making such a recommendation, and if so, what was the result?

1
2 A (Witness Fairbent) I have never been in that
3 position, sir.

4 Q Thank you. You did not find yourself in that
5 position in the Catawba case, is that correct?

6 A (Witness Robinson) No, sir; I did not.

7 Q Turning to page 4 of the testimony, this may
8 be a typographical error, Mr. Robinson, but reading from
9 the last lines of the first paragraph of the memo of
10 January 20th, from Frank Cefogama, who I assume is
11 speaking for you --
12

13 A He is my supervisor, yes, sir.

14 Q It refers to Waverly, Kansas as having a population
15 of seven hundred.

16 A Seven hundred. Excuse me. You will have to
17 forgive me. I do deal with a great number of power plants.

18 Q There is no problem at all, I assure you.

19 A It is a small population.
20

21 Q Right. And was the recommendation accepted?

22 A Yes, sir; it was. In fact, if you will allow
23 me just a moment, prior to the memorandum which my
24 supervisor submitted to the NRR, going out and being
25 included in the considerations for the Applicant and the
local community, those two -- I mean the Applicant and the

2-7-Wal

1 municipality decided on their own that it was better to
2 include that community, and so the problem became moot
3 at that point.

4 Q Did it require the installation of additional
5 sirens?

6 A Absolutely not. The Applicant had already
7 provided such equipment, and it was really at the request
8 of the local community to delete it, not at the Applicant's
9 request.

10 Q Going on to page 4, and I am not sure who
11 is providing this testimony -- oh, it is Mr. Soffer --
12 you are quoting from NUREG 0654, and in Section b, you
13 say: Projected dodes from most core melt sequences.

14 How many core melt sequences entered into
15 consideration here?

16 A (Witness Soffer) It was basically all of the
17 core melt sequences that were considered in the reactor
18 safety study.

19 Q That would be how many?

20 A Well, that is difficult to say. The reactor
21 safety study considered many different accident sequences,
22 categorized into various release categories, and examined
23 a few of them with regard to whether they were dominant
24 or not.
25

But in the context of 0654, when it talks about

2-8-Wal

1 most of them, it is generally making the statement that
2 it is more than half, and I believe that in our testimony
3 later on, and in NUREG 0396, it makes the point that about
4 thirty percent of the core melt sequences would exceed the
5 protective action guides outside the zone.

6 Consequently, about seventy percent would not.

7 Q Well, still my question is: How many core
8 melt sequences were considered in WASH 1400? You determined
9 it was over half of them. How many were considered all
10 together?

11 A I cannot give you a precise number.

12 Q Can you give me an approximate number?

13 A I would estimate that there were probably on
14 the order of over fifty different accident sequences that
15 were examined.

16 Q All right. Now, the period in which the reactor
17 safety study was conducted was approximately what, 1978-79?

18 A The reactor safety study was completed in draft
19 form in 1974. It was issued in 1975 in final form.

20 Q All right. Now, were you present yesterday
21 in this proceeding?

22 A Yes, I was.

23 Q Do you recall I was shown what was reported,
24 I believe, to be the reactor safety study, and that in it
25 there was material pertaining to Three Mile Island?

2-9-Wal

I am sorry, Browns Ferry. I take it back.

1 Since 1974, have there been any more melt sequences
2 thought of, and if so, how many?

3 A There has been a great deal of work that has been
4 done on severe core melt accident sequences since the
5 reactor safety --

6 Q I said how many new ones?

7 A I cannot give you a precise number.

8 Q An approximate number?

9 A I believe that you are asking for something that
10 is going in the wrong direction, and let me explain why.
11

12 Q I would just as soon you wouldn't.

13 A I would like to elaborate a little bit. I don't
14 feel that you are giving me the opportunity to do so. It
15 is not the number of sequences that makes a great deal of
16 difference.

17 It is the quantification of the dominancy
18 sequences, and how closely they approximate what the
19 portrait of risk is for the reactors in question.
20

21 That is if one accident has a frequency of
22 occurrence that is a thousand times more likely than many
23 of the sequences, that it is important that you recognize
24 that sequence, and it doesn't make too much of a difference
25 whether you neglect fifty other sequences that are much
lower in probability.

2-10-Wal

1 It is the recognition and the quantification of
2 the dominant sequences that count, because that is what
3 determines the picture of risk.

4 Q I appreciate that, Mr. Soffer. I also have the
5 testimony with respect to probability distinctions that
6 were made between actuarial experience on a broad base,
7 a large universe, the type of probability, I put in
8 quotation marks. You did hear that testimony.

9 A I was present in the room. I can't say that
10 I am familiar with the whole of the testimony.

11 Q So, several things. One is you are not able
12 to characterize for us the number and the type of core
13 melt sequences subsequent to reactor safety study, is
14 that correct?

15 A No, I did not say that. I said that there has
16 been extensive work done in examining the severe accident
17 sequences for many additional plants other than the two
18 that were originally studied in the reactor safety study.

19 Q Excuse me. We weren't talking plants. We
20 are talking core melt sequences.

21 A The core melt sequences that are of importance
22 are quite plant dependent, and consequently, examining
23 other plants gives us additional insight as to what those
24 sequences might be.
25

Q Can you give us an approximate number of how

2-11-Wal

many such additional core melt sequences have been since 1975?

1

A I don't think I can quantify it for you.

2

3

Q Approximate it?

4

5

6

7

A I am having difficulty with the very concept of doing that, because as I mentioned before, it is not the number of sequences; it is identifying the important ones.

8

9

10

11

Q Well, I might ask you about the important ones, but first I would like to know how many sequences approximately have been added to the list since 1975?

12

13

14

MR. MCGURREN: I am going to object at this point. It has been asked and answered many times. The witness has indicated he just can't quantify it.

15

16

17

18

19

20

21

22

MR. GUILD: If the answer is: I don't know, that would simplify things, and make the record a lot clearer, Mr. Chairman. I believe the witness has not been responsive. I think the interrogator appreciates the difficulty in quantification, but the simple answer is I don't know, and then some explanation, and I think the record would then be clear. If the witness would respond.

23

24

25

JUDGE MARGULIES: It is cross examination, and I will permit the question.

BY MR. RIELY: (Continuing)

Q Repeating the question now, can you approximate

2-12-Wal

that number?

1 A No, I cannot give you a number.

2 Q Thank you. Do you know how many dominant ones
3 have emerged, then, in the study since 1975?

4 A It is difficult for me to answer that question
5 directly as well. I can't quantify it.

6 Q In arriving at a core melt sequence, there is
7 a process of analytical thought in which the design of the
8 system is looked at. Information was submitted on
9 failures, and sort of using that design are fed in and
10 by the application of deductive, and I suppose inductive
11 logic, the core sequence arrived at -- core melt sequence
12 was arrived at?
13

14 A It involves all of those processes, yes.

15 Q On page 5, on the second line, the word, 'generally'
16 is used. Immediate life threatening doses would generally
17 not occur outside the zone.

18 Can you quantify, or semi-quantify, 'generally'
19 for us?
20
21
22
23
24
25

#3-1-SueT₁

1 A (Witness Soffer) Again, I would say it would
2 be more likely than not. That is most of the time.

3 Q More than fifty percent?

4 A More than fifty percent.

5 Q Now with regard to Item D of NUREG 0654,
6 Line 4, the detail planning within ten miles provides a
7 substantial base for expansion of this effort if this
8 proves necessary.
9

10 That does mean then that there would be an
11 ad hoc response of a situation outside the EPZ, that
12 ad hoc response would be aided by the fact that it was
13 an EPZ plan?

14 A It was in recognition of the fact -- it was
15 in recognition of the fact that for very unusual and
16 very severe events that there would be the possibility
17 that response actions would be required beyond the EPZ,
18 but there was a judgment made by the Task Force that
19 planning was not required beyond the EPZ based on a
20 number of factors, of which one of them was that there
21 was detailed planning within the EPZ that could serve
22 as a basis for expansion.
23

24 Q You haven't answered my question. The question
25

#3-2-Sue7

1 was, do you believe that the existence of a plan inside
2 the EPZ would be an aid in an ad hoc situation that would
3 result if there were such a severe accident?

4 A Yes.

5 Q Thank you. In such a situation, would a
6 large emergency effort be required inside the EPZ
7 simultaneously?
8

9 A I don't understand your question.

10 Q If there were a severe accident such as you
11 referred to, would not emergency resources, people,
12 vehicles, et cetera, be occupied inside the EPZ at the
13 same time the effort was called for outside the EPZ?

14 A I don't think so.

15 Q Is it your understanding then that there would
16 not be much required inside the EPZ during such a severe
17 accident?
18

19 A No. Your question went to simultaneity,
20 and I replied that I did not think that there would be
21 a simultaneous requirement for much resources within the
22 EPZ and at the same time outside of the EPZ.

23 The basis for this is the fact that the
24 severe accidents that would require responses beyond the
25

#3-3-SueT1

1 EPZ are those associated with very severe weather condi-
2 tions and very low wind speeds where the plume would take
3 typically on the order of four hours or more to traverse
4 the EPZ.

5 During this time period, we would estimate ---
6 and my personal estimate is that most of the resources would
7 be concentrated within the EPZ providing whatever response
8 is deemed appropriate for those individuals, whereas the
9 process of notification might be going on outside of the
10 EPZ and after a response has been phased or completed
11 within the EPZ. Those resources could then be shifted
12 to areas beyond the EPZ if necessary.

13 Q I appreciate your definition of simultaneity
14 and your description.

15 Are you aware of the average wind speed at
16 the Catawba site or at the Charlotte Airport weather
17 station?

18 A I'm not aware of the average wind speed, no.

19 Q Would you take seven and a half miles an
20 hour as the correct figure?

21 A I would not dispute you; however, I would say
22 once again based on my knowledge of accident consequences
23
24
25

#3-4-SueT₁

1 that a wind speed of seven and a half miles -- you
2 said per hour?

3 Q That's right.

4 A A wind speed of seven and a half miles per
5 hour would provide a relatively high degree of dispersions
6 and would not be typical of the conditions that would
7 require large responses beyond the EPZ.
8

9 Q Are you aware that there is very high frequency
10 in atmospheric diversions in the region of this plant?

11 A No, I was not aware of that.

12 Q Subject to confirmation, will you accept the
13 figure which was introduced into evidence yesterday that
14 the State of South Carolina Air Quality 1982 Annual
15 Report on Page 5 has a graph which indicates three hundred
16 and fifty diversions in a period of thirty years?
17

18 A I will accept that.

19 Q I'm sorry. Stagnate weather conditions, not
20 diversions.

21 A I will accept that.

22 JUDGE HOOPER: Excuse me. Can I have that
23 figure again, sir? I can't hear you very well. You will
24 have to speak up if you want me to hear you.
25

#3-5-SueT

1 MR. RILEY: I'm sorry, Judge Hooper. I
2 apparently have a weak voice. I'm doing the best I
3 can.

4 JUDGE HOOPER: Can you turn this way? I only
5 hear about part of what you say.

6 MR. RILEY: The number is three hundred and
7 fifty stagnate conditions of four day duration or more
8 in a thirty day period, thirty year period. I'm sorry.

9 MR. MC GURREN: Your Honor, if I might inter-
10 rupt a moment. Mr. Riley, Mr. Fairbent might be more
11 able to answer your questions since he is the expert on
12 meteorology.

13 MR. RILEY: I believe we have covered this
14 point sufficiently. Thank you.

15 BY MR. RILEY: (Continuing)

16 Q Subject to confirmation, did you also, based
17 on what you know of meteorology, think this is a region
18 with a relatively high incidence of atmospheric inversions
19 as well as stagnate air conditions?
20

21 A Yes, I would think so.

22 Q Now, you say that the disperions improve as
23 wind velocity increases, and I do not dispute that. Are
24
25

#3-6-SueT

1 there conditions where you would have a moderate wind
2 velocity, say, seven and a half miles per hour in the
3 presence of an inversion so that the dispersion would
4 be less than if you have a contribution of temperature
5 grade and mixing also?

6 A I think that you are asking a technical
7 question that I don't --

8 Q Then, could I ask Mr. Fairobent?

9 A Of course.

10 (Witness Fairobent) You can get such a
11 condition. Yes. The likelihood is not very large.

12 Q So, then it is possible to have a wind speed
13 of seven and a half miles an hour which would carry to a
14 ten mile radius in an hour and twenty minutes under
15 conditions of less dispersion than would normally be
16 the case at that wind speed?

17 A Yes.

18 Q Well, under these circumstances then we could
19 postulate that there might be doses in excess of the PAGs
20 past ten miles; is that correct, Mr. Soffer?

21 A (Witness Soffer) NUREG 0396 recognizes that
22 there can be doses in excess of the PAGs beyond ten miles.
23
24
25

#3-7-SueT

Q Good. With those circumstances, would it not be appropriate to have emergency efforts made, both inside and appropriately outside the EPZ?

A Yes. But I think those emergency methods should recognize the priority of actions. NUREG 0396 speaks to that as well and indicates that although dose savings is a desirable objective for emergency planning that attention should be given, and priority should be given, to individuals where life threatening situations may be in existence, that priorities should be given to those kinds of situations.

Q Could you give us a specific 0396 reference to what you have just testified?

A I'm not sure I could find it just right here.

Q Would you like to do it at the break?

A Of course.

Q In the hypothesis we are considering now, we have had the plume reach the extent of the EPZ in an hour and twenty minutes. Do you think it would be fair to consider simultaneity in that context?

A (Witness Soffer) I don't know what the nature of the doses have been throughout the EPZ. You are

#3-8-SueT 1

postulating a rather unusual situation.

2

Q Let's talk about a worst case situation.

3

A The worst case situation that has typically been simulated by our computer, using actual meteorological data, is a situation that is representative of very low wind speeds and stable conditions.

4

5

6

7

8

Q Excuse me, please. I meant worst case in the context that I just discussed with Mr. Fairbent, a rather unusual situation where you have a seven and a half miles per hour wind speed with relatively low dispersion.

9

10

11

12

13

14

When I say worst case, I mean worst case release.

15

16

A I have not looked at that.

17

18

19

Q For that situation, would you consider an hour and twenty minutes sufficient time to develop an effective ad hoc response?

20

21

22

23

24

A I don't think that I can effectively answer that question. I am not really an emergency planner. I do not deal with how local organizations cope with such things.

25

Q Mr. Robinson, would this be more your area?

#3-9--SueT1

2 A (Witness Robinson) Well, if you would repeat
the question I might be able to answer that one also.

3 Q All right. We are discussing a situation
4 in which an hour and twenty minutes -- there is a need
5 for an emergency response in a zone outside the EPZ.
6 During this time period, I would assume it would be
7 deployed within the EPZ the forces and the resources that
8 have been assigned to it under the EPZ.
9

10 And in terms of the context of what we are
11 discussing in this, the EPZ plan is to, in effect, be an
12 aid in forming a response past the ten mile EPZ. In
13 the circumstance, the clock has run for an hour and
14 twenty minutes now. We have got people inside the EPZ
15 assigned.
16

17 Do you see an hour and twenty minutes being
18 adequate time to crystalize the necessary emergency
19 response past ten miles?

20 MR. MC GURREN: Your Honor, so that the response
21 is clear, is the hour and twenty minutes from the time
22 of release?

23 MR. RILEY: The hour and twenty minutes is
24 from the time of release. Yes. And if we need to put in
25

#3-10-SueT

1 a further stipulation of the nature of the event, let us
2 say that there is essentially no warning time for the
3 release so there is not previous alert.

4 WITNESS ROBINSON: Mr. Riley, I think I have
5 to respond by first saying that I think this particular
6 area of expertise falls more within the Federal Emergency
7 Management Agency's scope of their job. Secondly, I
8 think that asking me whether or not a given amount of
9 time, an hour and thirty minutes, for example, would be
10 enough to marshal adequate response outside of the EPZ
11 is, for me, somewhat speculative.

12
13 And I'm not really sure that I can, or would be
14 able to, give an adequate answer as to what time period
15 would be sufficient.
16

end #3

Jim flws

17
18
19
20
21
22
23
24
25

flsSue

1 BY MR. RILEY:

2 Q You have reviewed the emergency plan that has been
3 made for this plant?

4 A (Witness Robinson) That is correct within the
5 EPZ.

6 Q Have you a study of how long it would take to
7 generate ad hoc response in the City of Charlotte for the
8 region of southwest Charlotte?

9 A I have not.

10 Q You have not?

11 A I have not.

12 Q In other words, you haven't considered whether
13 more shelters would be needed and how these would be desig-
14 nated in the hour and 20 minute or so period?

15 A Well, the most correct response to that and the
16 immediately-preceding question is although I personally have
17 not as a Staff member evaluated what takes place outside
18 of the EPZ, the fact of the matter is the memorandum of
19 understanding between NRC and FEMA, working closely with them
20 in a cooperative effort, they do evaluate these kinds of
21 situations.

22 And I rely on them to do their findings to provide
23 any information about deficiencies like you are describing
24 right now.

25 Q Having worked closely with FEMA, then, do you know

1 if they have made such a study?

2 A I am not peculiarly aware whether or not they have
3 made a study. I do -- I have received from FEMA their
4 interim findings which does not indicate that they have found
5 any problems along the lines that you suggest.

6 Q You do not know whether or not there would be
7 adequate buses for moving, say, 25,000 school children, our
8 testimony shows are in southwest Charlotte?

9 Bear in mind the school buses are already assigned
10 to the EPZ?

11 A I don't have off the top of my head any exact
12 figures with respect to their findings.

13 I do know by looking at the April 18, 1984 interim
14 findings for the Catawba plant that I have in front of me from
15 the FEMA that their overall findings are that the local
16 emergency plans are adequate of being implemented.

17 And from that cover memo from the headquarters of
18 FEMA, any particular problem here they did not consider
19 significant.

20 So I really don't know the answer to your
21 particular questions.

22 Q So you can't state as to whether or not buses
23 were designated, routes, bus drivers, arrangements made for
24 contacting bus drivers, et cetera?

25 Let me simplify: Do you know of your personal

1 knowledge whether or not FEMA did that?

2 A I know it is within, generally within the scope
3 of their job to review such things.

4 Q Do you know whether or not they did it?

5 A I have no knowledge personally of whether they
6 specifically did it.

7 Q Thank you.

8 Now, page 6, and I believe this is your question,
9 Mr. Soffer, what source term is used in the worst-case
10 design base accident?

11 A (Witness Soffer) The worst-case design base
12 accident is typically the loss of coolant accident that
13 is analyzed by the Staff.

14 Q Just the source term?

15 A Traditionally for siting purposes; and it is the
16 source term that's given in the Regulatory Guides 1.3 and 1.4.

17 Q You do not have that information available?

18 A You mean the amount of the nuclides?

19 Q The numbers, yes?

20 A Oh, of course I do.

21 It's 100 percent of the noble gases, 25 percent
22 of the iodines.

23 Q And what about the release rate of this source
24 term?

25 Is it a decaying release rate, and, if so,

1 what's the half-life for it? Can you describe it in those
2 terms? Or is it possible?

3 A Yuh, the containment is assumed to be leaking
4 at its design basis leak rate.

5 Q And that would be a leak at what curie rate?

6 A I don't have the number in curie rates; I'm
7 sorry.

8 Q What about percent of noble gases rate?

9 A I believe it is for the Catawba reactor, I
10 believe it's .2 percent per day, which is the design basis
11 leak rate.

12 Q Right.

13 And that would result in a very small dosage
14 compared with the severe accident, on people exposed, in
15 the path at some distance, say, five miles from it?

16 A That close in distances it would result in
17 a fairly significant dose rate, I would say.

18 Q Depending upon the period of time of exposure?

19 A Yes, or course.

20 Q Can we correctly say, then, that -- well, let's
21 talk about, now, severe accidents, which are also considered.

22 The noble gas release would be the same, is that
23 right? 100 percent?

24 A What sort of accidents are you talking about?

25 Q The most, the largest release rate that you

1 contemplate for a severe accident?

2 A You're talking --

3 Q The largest release?

4 A The largest release?

5 You mean in terms of total inventory?

6 Q Exactly.

7 A I see.

8 Q It would be 100 percent of noble gases?

9 A Typically the very severe accidents assume in the
10 range of 90 to 100 percent release of noble gases.

11 Q And the iodine, now, would be how much?

12 A It varies depending upon the individual sequence.

13 Q Worst-case?

14 A Pardon?

15 Q Worst-case?

16 A The worst-case that was analyzed in the DES,
17 I believe the iodine release fractions -- I don't remember
18 them precisely -- but if I can look up Table --

19 Q Right.

20 Does 90 percent sound about right?

21 I believe it's Table 5.10.

22 A I am looking up Table 5.10 of the DES on page 5-80,
23 and it lists 64 percent of the iodine as being released
24 in the most severe accident considered.

25 Q In the worst-case.

MR. MC GURREN: Are you looking at the DES or the

1 FES?

2 WITNESS SOFFER: I'm sorry, I'm looking at the
3 FES.

4 BY MR. RILEY:

5 Q Now, what is the release rate in the most severe
6 accident you consider?

7 Let's put it this way:

8 What is the most rapid release rate that you
9 considered in conjunction with a release of the magnitudes
10 we are discussing?

11 A (Witness Soffer) Are you talking about total
12 release or release rate?

13 Q No, I am talking about release rate.

14 We have established that 90 to 100 percent of the
15 noble gases, all right, now I ask is that release a puff, or
16 was it released at some percent per hour rate?

17 A For the worst-case, this was assumed to be released
18 over a period of two hours.

19 Q Two-hour release for noble gases?

20 That would also apply for iodines?

21 A It would apply to whatever quantities were
22 postulated to be released; yes.

23 Q Including particulates?

24 A That's correct.

25 Q And is the rate of release during this two-hour

1 period a tapered release, in which there is maximum initial
2 magnitude and then as the two hours run out, is it seen as a
3 step function; or do you have a fixed average release for
4 two hours which is then sharply cut off?

5 A It was modeled as the latter.

6 However, there has been several sensitivity studies
7 that have been performed that indicate tht there is very
8 little difference in consequences, whether one models it as
9 a sharp initial release or as a uniform release.

10 Q Now, you indicate that you repeated the DBA
11 release time study because you were unable to confirm the
12 Catawba site was considered in NUREG 0396, is that correct?

13 A That's correct.

14 Q And in that study what meteorology did you use?

15 A (Witness Fairbent) I'll answer that, Mr. Riley.

16 Q Would you?

17 A The meteorology assumed for that was based on the
18 information provided in the construction permit application,
19 the Preliminary Safety Analysis Report.

20 It was a one-year period of reference, June '71 to
21 June '72, I believe.

22 Q 5-percent meteorology?

23 A Yes, sir.

24 Q In considering the DBA accident, would I be correct
25 in assuming that particulates would not constitute part of

1 the release?

2 A (Witness Soffer) That's correct.

3 Q Now, on page 8 of your testimony in the middle of
4 the page, Answer 12, the sentence reads, "A large number
5 of accidental releases were then postulated to occur
6 throughout the year."

7 What, specifically, is a "large" number?

8 A It was 91 release times for each of the PWR-1
9 through 9 categories; so it was 91 times 9 releases.

10 Q Thank you.

11 Q On page 9, in the second line of the second full
12 paragraph, the sentence reads, "As stated earlier, two of
13 the considerations leading to the selection of about 10
14 miles as the size of the plume exposure EPZ were that:" --
15 now, when you say "selection" are you referring to the
16 particular group who in effect sponsored or advised in
17 NUREG 0396?

18 A Yes.

19 Q Would you define the releases in (a) and (b)
20 as you did before?

21 A I would define them as I did before.

22 Q And is "generally" greater than or equal to
23 50 percent?

24 Q And "generally" -- is that greater than or equal
25 to 50 percent?

1 A I would say more than 50 percent.

2 Q All right.

3 And a little further down under (b) you say,
4 "...meteorology was accounted for in a conservative manner
5 in arriving at these doses." -- what do you define as
6 "conservative" here in this context?

7 A "Conservative" would mean conditions that occurred
8 less than 50 percent of the time.

9 Q Now on following page 10 you are asked, "Are you
10 saying that high doses could not be experienced beyond 10
11 miles?"

12 And your answer is, "No, not at all. Rather, that
13 it would be unlikely, even in the event of a core-melt
14 accident."

15 Is that correct?

16 A Yes.

17 Q Now, going to page 11, you are discussing the
18 shap of EPZs; "The rule requires roughly circular EPZs
19 because (a) at real sites the wind does not blow only in
20 one direction and (b) we do not know which way the wind will
21 blow in advance of an accident and consider it prudent to plan
22 for any eventuality."

23 My question is:

24 Is that Mr. Soffer's specific thinking? Or is it
25 management thinking? Or you and management agree on this?

1 A I would say I and management agree on this.

2 Q And, Mr. Fairobent, the bottom of that page it
3 is your testimony that with regard to the Catawba facility
4 "Stable atmospheric conditions accompanied by low wind speeds
5 occur frequently in this region, and are reflected in
6 meteorological measurements made at nuclear power plant sites."

7 Is that correct?

8 A (Witness Fairobent) That's correct.

9 Q Page 12, you discuss Pasquill types E, F, and G.
10 They represent atmospheric conditions where there is little
11 vertical circulation, you might say of a vector sort, for
12 dispersion; is that correct?

13 A They represent slightly stable, moderately stable
14 and extremely stable conditions, with vertical mixing
15 decreasing as you get --

16 Q The higher letter, yuh.

17 And for the Catawba site record you indicate that
18 these conditions are present 41 percent of the time?

19 A Yes.

20 Q And most of them occur about 77 percent with wind
21 speeds less than or equal to 2 meters/second?

22 A Yes, sir.

23 Q Could you convert meters/second to miles per
24 hour? We've been having a lot of talk in those terms?

25 A Well, you have to divide by .447; do you have a

1 calculator?

2 Q Yes.

3 It's about 4?

4 A Between 4 and 5.

5 Q Right.

6 On page 13 there is further testimony and for the
7 sum of three sectors, northwest, south-southwest and west
8 southwest, you arrive at a total of 33 percent; that was
9 derived from the observation period December 17, 1975 to
10 December 16, 1977?

11 Now NUREG 2239 gives slightly different totals,
12 as I recall it's about 35 percent.

13 Would you say that that was not a significant
14 difference and that the two are basically in accord?

15 A Yes, I would say that.

16 Q Are these wind directions, directions that carry
17 over the City of Charlotte?

18 A Yuh, I think they do; that's the point of bringing
19 them up, as a matter of fact.

20 Q Now, at the end of the same paragraph we're looking
21 at, you say "Limerick site, Pennsylvania, winds from the
22 west, west-northwest, and northwest occurred about 36 percent
23 of the time for the period January - December 1974."

24 Is that correct?

25 A Yes.

1 Q So 36 percent of the highest cumulative percentage
2 of 3 adjoining sectors would be involved in the data which
3 you examined?

4 A For this it was. This information is readily
5 available. We can look at the NUREG CR 5239.

6 Q Subject to check, would you agree with me
7 that there are three such?

8 A Yes, I would.

9 Q And would you also agree that if you take a look
10 at those cumulative wind directions that in no case do they
11 carry over out to 25 miles as populous a region as Charlotte?

12 A That I don't know.

13 Q Do you agree to that, subject to checking it?

14 A Yes.

15 Q Would you say that the difference between a 36
16 percent at Limerick and a 33 percent at Catawba, both based
17 on observation, is not likely to be a significant
18 difference?

19 A I would agree with that; yes.

20 MR. RILEY: I hope, Judge Hooper, you're able to
21 hear me?

22 JUDGE HOOPER: About one-third of the time I am
23 hearing you, the other two-thirds, I am not.

24 MR. RILEY: We'll have to build in amplifiers,
25 sir.

1 BY MR. RILEY:

2 Q Now, with respect to prevailing wind direction,
3 would you agree that for the Catawba plant, the prevailing
4 wind direction we've already touched on is over Charlotte?

5 A (Witness Fairobent) The prevailing wind direction
6 is from the southwest, and over Charlotte.

7 Q Right.

8 And it is not over Rock Hill?

9 A That is correct.

10 Q And Rock Hill has an EPZ in excess of 13 miles?

11 A I don't know, sir.

12 Q Would you respond to that, Mr. Robinson?

13 A (Witness Robinson) Will you repeat the question?

14 Q Rock Hill has an EPZ slightly in excess of 13
15 miles?

16 A You mean out to its furthest point?

17 Q Out to its furthest point, yes?

18 A To the official boundary?

19 I believe that's correct.

20 Q Subject to check.

21 And for Charlotte the EPZ extends approximately
22 to 9.7 miles of the city limit?

23 A Again, I believe that's correct.

24 Q Now, on page 15, you're discussing the question
25 of individual risk; and I believe that's your territory,

1 Mr. Soffer; is that right?

2 A (Witness Soffer) Yes, sir.

3 Q Is the individual risk concept presented in the
4 FES?

5 A No, I don't believe it is.

6 It is basically the societal aspect that is
7 discussed in the FES.

8 Q Well, would you define for us "individual risk"
9 in contradistinction to the "societal" risk?

10 A Well, the individual risk as we have discussed
11 here is the risk to a single individual of suffering ill
12 effects as a result of accidents.

13 In the case of our testimony here, we presented
14 information on the individual risk of early fatality from
15 a spectrum of core-melt accidents; the same spectrum of
16 accidents that were considered in the FES.

17 Q Well, could you tell us what the hypotheses,
18 what the postulations are, in developing individual risk,
19 the individual risk numbers?

20 A Yes.

21 Do you want me to go into the calculation?

22 Q What's the underlying set of assumptions in
23 arriving at this number?

24 In other words, you've got this individual, I assume
25 he's at one of the distance intervals -- let me put it this

1 way:

2 Looking now at the 6.8×10^{-9} Individual Risk of
3 Early Fatality at the Interval 10 - 12.5; this represents
4 calculations for the specific case and specific meteorology,
5 as your testimony indicates.

6 A That's correct.

7 Q And you have a higher risk at 17.5 - 20 miles
8 than 15 - 17.5 simply because of the peculiarities of that
9 set meteorological condition; is that right?

10 A I believe so; yes.

11 Q Now, let's go back to the individual between 10
12 and 12.5 miles out. What was the wind direction in this
13 specific meteorology?

14 A This is the case where the wind direction is
15 assumed to be a uniform windrose; so this does not assume
16 that the wind is blowing at all times towards the individual.

17 Q Does it assume, then, that the plume content is
18 uniformly distributed?

19 A It assumes that the individual would be in the
20 center of the plume $6\frac{1}{4}$ percent of the time.

21 However, it is very easy to make a transformation
22 to ask yourself: what would be the risk for an individual
23 where the wind was blowing in his direction?

24 And you would simply multiply these results by
25 a factor of 16.

These particular results, however, assume the uniform windrose.

1
2 Q What about the case of the individual who is
3 not at plume center, but is, say, at the half intensity
4 level. Do you follow what I mean, of a plume?

5 A Yes.

6 Q Where does he enter on this individual risk
7 calculation?

8 A The calculation has not assumed that to be the
9 case. It has assumed that the individual is at plume
10 center line. Any individuals that might be located off the
11 plume center line would, of course, receive lower doses,
12 and the risk of such individuals would be lower.

13
14 Q Those risks have not been integrated into this
15 number, is that correct?

16 A This number shows a risk for an individual who
17 is at the plume center line, but is only receiving the
18 plume six and a quarter percent of the time.

19
20 Q Right. So, that it ignores all lesser doses?

21 A That is right. It is showing the maximum
22 individual risk for a uniform windrose situation.

23 Q Now, if we assumed different meteorology, we could
24 have had rainout between ten and twelve and a half miles if
25 the sample called for it, and under those circumstances the
individual risk would have been, given the other assumptions,

5-2-Wal

1 greater than six point eight times tenth to the minus 9,
2 is that right?

3 A Well, I have examined the data and examined the
4 trend of the data, and from examining the trend of the data
5 it appears that the rainfall makes a difference of about
6 one order of magnitude in individual risks.

7 Q Right. Now, would we then be able to say that
8 between ten and twelve and a half miles for a rainout, the
9 number would have been nearer six point eight times ten to
10 the minus 8th?

11 A Approximately, yes.

12 Q I am not sure which member of the panel feels
13 in the best position to respond to this question with
14 respect to emergency planning, and it is a hypothetical.

15 In the circumstance that you have the prospect
16 of taking a round the world voyage in a steamship, and
17 your choice was between two ships which had the same
18 itinieries and other features, one of which was equipped
19 with lifeboats, life jackets, life rafts in adequate numbers,
20 the other of which was not. The cost is the same. Which
21 would you take, Mr. Fairobent?

22 A (Witness Fairobent) The one with the lifeboats.

23 Q Mr. Robinson?

24 A (Witness Robinson) I would have to concur with
25 Mr. Fairobent.

5-3-Wal

Q Mr. Soffer?

1 A (Witness Soffer) I would agree.

2 Q All right. Now, if there were a premium in the
3 price between these two cruises, and let's just say that
4 the fully equipped vessel had a charge of a hundred units,
5 how much of a cost reduction would induce you to take the
6 second vessel? Mr. Soffer?

7 A (Witness Soffer) It is very, very difficult.
8 At that point, so many other factors would have to enter
9 into my personal choice. It would be very difficult for
10 me to say.
11

12 Q They are identical situation, except for price
13 and equipment.

14 A I don't know.

15 Q Mr. Robinson?

16 A (Witness Robinson) I am afraid I would have
17 to also concur to some degree with Mr. Soffer in that there
18 are too many other speculative considerations given the
19 circumstances.
20

21 Q I am trying to narrow the hypothesis. I am
22 just saying how much discounting would persuade you to
23 take the risk?

24 A I suppose I can't say without more information.

25 Q Well, the hypothesis is the totality of the
information.

1 A That is not enough information for me to answer
the question.

2 Q If it were free, would you take it?

3 A If which were free? The one without the satisfactory
4 safety equipment?

5 Q That is right.

6 A Perhaps I might, yes.

7 Q Mr. Fairobent?

8 A (Witness Fairobent) I simply don't know.

9 Q Now, on page 17, in response by Mr. Soffer and
10 Fairobent, in regard to the selection of about ten miles,
11 you state: Our previous testimony has shown that meteorology
12 was a major consideration in the regulatory determination
13 of the approximate size of the plume EPZ.

14 Perhaps I am addressing this primarily to you,
15 Mr. Fairobent, but Mr. Soffer, you are welcome to comment
16 if you will. What meteorology was assumed; fifty percent,
17 five percent, one percent?
18

19 A (Witness Fairobent) It is my understanding
20 of reading NUREG 0356 it was five percent meteorology for
21 seventy sites.
22

23 Q Mr. Soffer, do you concur?

24 A (Witness Soffer) It is not as simple as that.
25 For the design basis accidents, it was five percent
meteorology.

5-5-Wal

Q Severe accidents?

1 A For severe accidents there was no precise
2 quantification as to meteorology. It was simply that it
3 was adverse meteorology, or where doses were not likely
4 to be exceeded, but there was no precise quantification,
5 and it was not intended to be, based on my familiarity
6 with work in 0396.

7 Q Do you singly, or both of you agree, that
8 meteorology exhibits a very broad range of phenomena, from
9 zero in velocity to reaching fifty-nine miles an hour
10 maximum in rainfall rate inversions?
11

12 A (Witness Fairbent) I am sorry. I missed the
13 beginning of the question.

14 Q Do you agree in this region we see a broad
15 range of meteorological phenomena?
16

17 A Yes, I do agree.

18 Q Mr. Soffer?

19 A (Witness Soffer) Yes, I would agree with that,
20 and I would add that the calculations that we have performed
21 have sampled the Catawba meteorology. We have used the
22 data that is appropriate to the Catawba site.

23 MR. RILEY: May I ask the chair how many minutes
24 we have used?

25 JUDGE MARGULIES: One hour and fifteen minutes.

BY MR. RILEY: (Continuing)

5-6-Wal

1 Q On page 18, consideration is going into the
2 Catawba analysis. It says the adverse dispersion character-
3 istics for the Cztawba site are generally similar to
4 those for the Indian Point site.

5 Do you have atmospheric inversion data for the
6 Indian Point site?

7 A (Witness Fairobent) Yes, sir.

8 Q Do you have it for the Catawba site?

9 A Yes, sir.

10 Q Is the inversion data, such as the inversion
11 data reflecting a temperature differential between the
12 high observation point or the low?

13 A It is the latter.

14 Q It is not weather bureau inversion data?

15 A No, sir.

16 Q You don't know what the inversion ceilings were?

17 A No, sir.

18 Q Do you know the nearest station to Catawba
19 which takes inversion data?

20 A Not right offhand I don't.

21 Q Would you accept Greensboro?

22 A That sounds reasonable.

23 Q How about Indian Point?

24 A Probably New York City.

25 Q Have you compared the inversion data for those

5-7-Wal

two stations?

1 A No, I have not.

2 Q So, when you say generally similar, you are not
3 including inversion data?

4 A I am including inversion data as represented
5 from the vertical temperature reading measured at Indian
6 Point and Catawba.

7 Q And you would say they are similar?

8 A Yes, sir.

9 Q Will you indicate --

10 A That goes back to one of the questions in the
11 testimony.
12

13 Q You have that some pages earlier.

14 A Yes, sir; in response to Question 20 on page 14.

15 Q Right.

16 A We say the stable conditions occurred at
17 Indian Point about forty-eight percent of the time versus
18 41 percent of the time at Catawba.
19

20 Q Right. But this is as, we have already
21 determined, based on this differential temperature. It
22 says nothing about the inversion ceiling and so forth?

23 A That is correct.

24 Q And inversions would be a factor in the dosage
25 levels for a given plume release?

A Stable conditions definitely. The inversions

5-8-Wal

depend of the depth of the mixed layer, and where you have an inversion.

1
2 Q And it would also depend upon the nature of the
3 release. Whether a ground level release, whether it was
4 an energetic release, which moved upwards.

5 A Yes. If you have an inversional loft it would
6 cap.

7 Q That is what I am talking about. We may be
8 in your area at this point, Mr. Soffer. And that is,
9 in your judgment, is the risk at ten miles in Rock Hill
10 greater, less than, or equal to, that of ten miles from
11 the City limit of Charlotte -- southwest Charlotte?
12

13 A (Witness Soffer) Could you repeat that
14 question again.

15 Q Yes. Comparing the ten mile radius -- one
16 is in southwest Charlotte, in other words in Rock Hill,
17 would the risk be greater, equal to, or less than that
18 in Rock Hill or Charlotte?
19

20 A You are talking about a hypothetical individual
21 located ten miles in southwest Charlotte, versus a hypothetical
22 individual located ten miles, in Rock Hill?

23 Q Exactly.

24 A I would say the risk would be greater for the
25 individual at Charlotte in the ratio of the windrose.
However, I would also hasten to add that the risk is extremely

5-9-Wal

1 low for both of those individuals as shown by our
2 testimony. Basically, at the top of page 17, in response
3 to number 22.

4 Q Right. But that assumes a certain probability
5 for a large release accident, doesn't it?

6 A No. No. That is the conditional probability
7 given that the core melt has occurred. That merely reflects
8 the distribution of severity of accident sequences, and the
9 distribution of meteorological sequences as experienced at
10 the Catawba site.

11 Q So, that probably already assumes that core melt
12 has occurred.

13 Q I thank you for the clarification. I had in
14 mind the table on page 15. I agree with you about the
15 table on page 17.

16 Q Now, what about relevant risks at thirteen
17 miles compared to risks at ten. On the whole, would it
18 be less?

19 A It would be slightly less in Rock Hill, but
20 again the risk is so low for both hypothetical individuals
21 that I see no significant difference at that level.

22 Q All right. Now, in terms of what you just
23 told us, did you advocate a reduction, or would you advocate
24 a reduction of the EPZ at Rock Hill from 13 miles to 10 miles?
25

A I would say that any changes in size, any changes

5-10-Wal

1 in size of the EPZ that would be proposed for the
2 area of Rock Hill would be unrelated to radiological risk
3 considerations, but there might be other factors, and these
4 are the modifying factors of 0396, such as demography,
5 topography, jurisdictional boundaries, et cetera, that
6 would enter, but that radiological risk no longer enters
7 into the factor.

8 Q, On page 20, you say that the choice or size
9 of the plume EPZ, this is about a third of the way down,
10 represents judgment in the extent of detailed planning
11 which must be performed to assure an adequate response
12 base, is that correct?

13 A (Witness Robinson) I believe that is my testimony.
14 You were addressing the question to him.

15 Q I am sorry. That is addressed to you, Mr.
16 Robinson.

17 A Could you repeat it, please?

18 Q You say the choice of size of the plume EPZ
19 represents a judgment, and that other factors of meteorology
20 are involved.

21 A You lost me for just a moment about the meteorological
22 aspects --

23 Q Other than meteorological entered into this
24 judgment. Meteorological is one of them?

25 A If you will allow me just a moment, please.

1 Q Have you found the place?

2 A Yes, I believe so. I am just a little bit
3 confused about your statement about meteorology as being
4 one of the factors.

5 Are you referring to --

6 Q This is not the sole factor, is that not true,
7 because you do list other factors? You talk about the
8 needs and capabilities of the community.

9 A In terms of NUREG 0396 document, that would
10 be true.

11 Q And you state further: The Staff considers that
12 detailed planning within ten miles provides a substantial
13 base for expansion of response efforts in the event that
14 this proved necessary.

15 And I construe that to mean that in your judgment
16 the emergency plans in Charlotte are pretty good plans,
17 and they really they can be adopted to any emergency
18 that might threaten southwest Charlotte, is that correct?

19 A No, sir, I don't think that is what I am trying
20 to get at. What I am trying to point out is that -- well,
21 let me give you an example. Referring to some previous
22 testimony by Dr. Tom Urbonet, in which he indicated, for
23 example, that as a result of evacuation time estimate
24 studies for the ten mile EPZ, some consideration of the
25 road systems outside of the ten mile EPZ must also be

1 considered. That is the kind of thing that I mean by the
2 detailed planning that adds to being able to handle something
3 outside the EPZ on an ad hoc basis.

4 Q I see. Well --

5 A That is not to say that the plan or planning
6 outside the EPZ with respect to Charlotte is or is not
7 adequate.

8 Q What I am getting at is your discussion of the
9 present detailed planning provides a substantial base for
10 expansion of response efforts, which means going beyond
11 the ten mile EPZ. My question is: Since there is in your
12 testimony a rather small gap between the effectiveness of
13 formal EPZ planning, and the timing for all hazards in
14 Mecklenburg, York, and Gaston, why not simply go with the
15 plans already in place in the several counties?

16 A Could you focus your question a little bit better.
17 I am still not sure exactly what you are trying to get at.

18 Q Well, it boils down to why bother to have EPZ,
19 why plan for it, if the probabilities are as low as they
20 are, and the existing plans are as good as they are?

21 A That is a rather broad question. Why having an
22 EPZ, I respond to that within the scope of my job, by
23 evaluating whether or not the planning within the EPZ is
24 adequate; as to why there should, in fact be an EPZ to begin
25 with, I think that has been sufficiently addressed by such

1 documents as NUREG 0396 and NUREG 0654, and other
2 information provided by the other witnesses on the panel.

3 A (Witness Soffer) If I may add to that, Mr.
4 Riley, the Commission has given guidance in statements of
5 consideration that led to the EPZ rule, for the emergency
6 planning --

7 Q This is all post-TMI-2?

8 A Yes. They felt it was necessary to bolster the
9 defense in depth concept.

10 A (Witness Robinson) Let me just direct your
11 attention to Federal Register 544, No. 206, dated October 23,
12 1979, which provides the Commission's rationale for the
13 planning basis of the EPZ .

14 Q Charlotte is a growing city, and its city limits
15 have expanded a great deal since the Catawba planning
16 started. I think it is a reasonable hypothesis to see those
17 city limits going beyond the present EPZ. Do you on the
18 Staff have a position on whether an extension of the city
19 limit postulated two miles would see the EPZ remain where
20 it is, or would the EPZ be pulled back a few miles?

21 A Let me see if I can rephrase your question. You
22 are asking whether or not -- you postulated that the city
23 is growing toward the current EPZ boundaries, and in fact,
24 postulate that they may encroach beyond the current EPZ
25 boundary, and thus you are asking whether or not the Staff

1 may retreat on its position as to the adequacy of the
2 current.

3 Q That is correct.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

#6-1-SueT,

1 A (Witness Robinson) Well, if you will let
2 me preface my answer first by saying, as I've indicated
3 in my testimony, I have toured these areas and I know
4 that in the particular areas that I have seen where the
5 population does seem to be growing it does not appear to
6 me at this point that it is growing directly across the
7 EPZ boundary.
8

9 Further, though I'm not familiar with the
10 zoning master plan of the Charlotte area, I think that
11 you would have to take that into consideration before
12 you postulate whether or not the population would grow
13 across the EPZ.

14 Q It was simply the hypothesis if it did grow
15 two miles -- if the city limits were extended two miles,
16 where would the EPZ then lie or that you would recommend
17 it then lie?
18

19 A I don't see any reason necessarily for the EPZ
20 to change. If there is further population that happens
21 to be within Charlotte but is within the EPZ, as long as
22 adequate boundaries can be established that are recogniz-
23 able, I don't see that anything would change.

24 Q All right. In other words, you can see the
25

#6-2-SueT 1

recommendation the EPZ remain where it is?

2 A (Witness Soffer) If I can add to that state-
3 ment, we see the boundary of the EPZ and the size of the
4 EPZ as being dominated primarily by radiological risk
5 considerations. This formed the basis for the recommenda-
6 tions in 0396 and formed the basis for the Commission's
7 regulation that a size of ten miles about was appropriate.
8

9 But then what we also see is that the Commission
10 recognized that an arbitrary circle of ten miles might
11 not do justice to certain kinds of situations and might
12 invoke some local hardships and did not appropriately
13 reflect local needs. And so there might be additional
14 small modifying factors that are mentioned in NUREG 0396
15 as varying that boundary by relatively slight amounts.
16

17 That's why the regulation says about ten
18 miles. And we interpret that to mean relatively small
19 variations, as our testimony points out.

20 Q And with respect to Page 24 of Mr. Robinson's
21 testimony, there is an element in response to local needs
22 and capabilities. Now, Mr. Robinson, I have a question
23 for you.

24 A (Witness Robinson) Yes, sir.
25

#6-3-SueT

1 Q What citizen input was there with respect to
2 the community's representation as to its needs and
3 capabilities?

4 A Could you direct me to the specific point in
5 my testimony that you are referring, please?

6 Q Well, yes. These are Lines 4 and 5 on Page
7 24. You say the EPZ must be determined in response to
8 local needs and capabilities.
9

10 What I'm asking is, was the entire input in
11 this area an administrative one of the Emergency Manage-
12 ment Office of Mecklenburg in which Charlotte is located;
13 or, to your knowledge, was there a search for citizen
14 input? And, if so, what was it?

15 A Well, I have spoken with Mr. Wayne Broome and,
16 to my knowledge, the approach that was taken I believe
17 was stated by Mr. Glover earlier in this proceeding,
18 that the Applicant took a retrospective view on the
19 establishment of the exact boundaries, and that they
20 allowed municipalities and administrators to establish
21 the boundaries and then confer with the Applicant.
22

23 To my knowledge, I do not know how much parti-
24 cular constituent input was sought out by the municipal
25

#6-4--SueT,

officers.

2 Q Do you know who, in addition to Mr. Broome and
3 Mr. Glover, made this input? And, if so, please name
4 them.

5 A No, sir. I'm not familiar with that informa-
6 tion.

7 Q Let's look at Figure 1.11 or i.11 which is
8 your Attachment 1, I believe, Mr. Soffer. This would be
9 in your territory.

10 A (Witness Soffer) Yes, sir.

11 Q I have drawn some lines on here representing a
12 seventeen miles distance on the probability of exceeding
13 various whole body doses. It's a logarithm scale.

14 Did I correctly identify it?

15 A It's Figure i-11, yes.

16 MR. RILEY: May I show this to the witness?

17 JUDGE MARGULIES: You may.

18 (Mr. Riley approaches the witness with a
19 document.)

20 BY MR. RILEY: (Continuing)

21 Q Mr. Soffer, I've drawn in here a line which I
22 say is approximately seventeen miles. Would you agree?
23
24
25

#6-5-Sue1

A I would agree.

2 Q All right. Now, for a dose of one rem, would
3 that mean a twenty-two percent chance, point two two
4 probability?

5 A Yes, that looks approximately correct.

6 Q Seventeen percent for a dose of five rem?

7 A Yes, that looks approximately correct.

8 Q Eight percent for a dose of fifty rem?

9 A Again, that looks approximately correct.

10 Q And less than one-tenth of a percent for two
11 hundred rem?

12 A Yes, that looks approximately correct.

13 Q Now if we go to a ten mile radius, is it about
14 thirty percent chance at one rem?

15 A Yes, that's correct.

16 Q And twenty-three percent chance at five rem?

17 A Yes, that's correct.

18 Q And eleven percent chance at fifty rem?

19 A Yes, that's correct.

20 Q And a three percent chance at two hundred rem?

21 A Yes, that's correct.

22 MR. RILEY: That will be all. Thank you.

23 JUDGE MARGULIES: Let's take a fifteen minute
24 recess.

25 (Whereupon, the hearing is recessed at 10:39 a.m.,

#6-6-SueT₁

to reconvene at 10:55 a.m., this same day.)

JUDGE MARGULIES: Back on the record. Mr. Guild?

MR. GUILD: Thank you.

CROSS EXAMINATION

BY MR. GUILD:

Q Gentlemen, my questions I think primarily are for Mr. Robinson. I appreciate Mr. Fairbent, your testimony with respect to meteorology and accident analysis. I'm interested in getting primarily into the regulatory review of the adequacy of the EPZ configuration as it relates to the City of Charlotte.

And I gather that it's appropriate to address the question of review --

A (Witness Soffer) Before you begin, Mr. Guild, may I answer a question that Mr. Riley asked me to look up?

Q Please do.

A You asked me a question regarding priority of emergency response, and I indicated that there was recognition by 0396 that priority attention should be given to actions to save lives and reduce injuries.

And you asked me whether that was quoted in 0396, and I said yes. You asked me to define the citation, and I have it for you.

CROSS EXAMINATION

BY MR. RILEY:

#6-7-SueT1

Q Thank you. What is it, please?

2 A It is on Page i-6 and the first full paragraph
3 on i-7 of 0396. And the pertinent sentence, let me read
4 it, says: Therefore, emergency response for these condi-
5 tions -- and these conditions are talking about very severe
6 releases -- must have, as its first priority, the reduction
7 of early severe health effects.

8 Q With those selections, Mr. Soffer, are there
9 perhaps half a dozen lines in the full text?

10 A I read you one pertinent sentence out of the
11 paragraph, sir.

12 MR. GUILD: Thank you, Mr. Soffer.

13 BY MR. GUILD: (Continuing)

14 Q Let me see if I can begin again. I'm interested
15 in my time in focusing I gather on Mr. Robinson, and since
16 I understand you are primarily sponsoring the testimony
17 with respect to the regulatory review of the adequacy of
18 the present plume, EPZ; is that correct?

19 A (Witness Robinson) That's correct.

20 Q And I don't mean to slight you, Mr. Fairbent
21 and Mr. Soffer, but I gather your meteorology and accident
22 analysis provides in part a technical basis for applying
23 those regulatory requirements.

24 But it's to you, Mr. Robinson, that the duty
25 falls to the regulatory requirements themselves?

#6-8-SueT1

A That's correct.

2 Q Would you help me to understand what your role
3 was in reviewing the Catawba EPZ configuration aside from
4 presenting your testimony here?

5 Was that part of your job otherwise?

6 A Could you narrow the focus of your question?

7 Q Tell me what you did aside from testifying in
8 this case about the configuration of the EPZ as it relates
9 to Catawba and the EPZ?

10 A My particular responsibility with respect to
11 Catawba was to review the adequacy, the size and configura-
12 tion of the EPZ with respect to 10 CFR 50.47(c)(2), and in
13 doing so I reviewed a number of different sources which I
14 have indicated in my response to Question 26, I believe,
15 which include the Applicants' emergency plans and evacua-
16 tion time estimate study which is -- which was prepared by
17 VRC Voorhees, and it's dated April 1983.

18 Q Let me see if I can shortcut -- I read that
19 part of your testimony. What I'm trying to focus on is,
20 did you do those things as part of your normal duties or in
21 the preparation of your testimony here?

22 A My normal duties would include reviewing the
23 paper work. If what you are asking is, what is not a part
24 of my normal duties, to tour the area, for example, is not
25 part of my normal duties.

#6-9-SueT 1

2 Q So, aside from Contention 11s admission for
3 litigation and us being here, you would have done the same
4 review but for the actual site tour and perhaps some other
5 detail preparation such as your testimony?

6 A That's correct.

7 Q You would have reviewed the paper work?

8 A Absolutely.

9 Q Now, help me understand a little bit better what
10 the NRC's role in all of this is. I gather that there are
11 a number of different actors involved in the identification
12 and selection of an appropriate plume EPZ in terms of its
13 size and configuration, and you identified who those people
14 are.

15 I'm looking at Page 24 of your testimony, Answer
16 29. You state that the Staff regards the determination of
17 the EPZ boundaries to be a cooperative effort between the
18 Applicants and the off-site authorities; right?

19 A That's correct.

20 Q Okay. And what's the -- what is the NRC's role
21 then in establishing the configuration and size of the EPZ?

22 What is the Staff's role aside from the responsi-
23 bility of these Judges, within your normal duties where
24 there is not litigation about the size?

25 A Well, I would first like to state that our role
of the Staff is not to establish the size and configuration

#6-10-SueT

of the EPZ. We simply look at what is offered by the Applicant, their concept of what size and configuration of the EPZ is, and along with the cooperative effort of FEMA's role in this area we evaluate whether or not that appears to be reasonable, a reasonable concept.

Q Okay. And if it's not a reasonable concept, what is the responsibility of the NRC Staff?

A Well, I think I gave you an example of our responsibility when I handed you earlier this morning the Wolf Creek --

Q Wolf Creek?

A That's correct.

Q But, in that case, I gather you say the final result was your Staff's conflicting position, or the position that may have conflicted with the view of one of the other local actor's turned out to be of no consequence, since everyone resolved the difficulties and whatever controversy there was was moot, and the town in question, Waverly, Kansas, population seven hundred, was included in the EPZ; right?

A In that particular case it was, yes, sir.

Q Well, that's what I'm trying to understand. As a general policy matter, what happens when the Staff disagrees with, or finds unacceptable, the proposed EPZ configuration as presented to them? What do you do?

#6-11-SueT

1 A I hate to sound redundant, but the mechanism
2 which I used as evidenced in the memo for the Wolf Creek
3 situation is that I raise the issues to my supervisors,
4 provide them with the information and my professional
5 judgment with respect to the situation, and that information
6 will eventually go out to the Applicant for our attempt with
7 the Applicant to resolve the problem.

8 Q Let me start maybe the other way. Does the NRC
9 Staff have to approve the proposed size and configuration
10 of the EPZ?

11 A I think that's a fair approach. Approval, I'm
12 not sure that's the proper word.

13 Q Well, give me a better word if that's not the
14 proper one. I want to be clear about it, what the role
15 of the NRC is.

16 A Well, let me -- our approach to this is bracketed
17 by the language in the part of the Rule that we are discuss-
18 ing, 50.47(c)(2), in that it discusses local needs and
19 capabilities. And we rely very much on that concept, what-
20 ever the needs of the local communities are to help us
21 establish, if you will, the size of the EPZ.

22 If it looks reasonable based on the paper work
23 that I review, then I approve -- I guess approve is a a
24 good --

25 Q That's the best word. I mean, if it's a better

#6-12-Sue1

word, give it to me.

2

A No. I think that's a good word.

3

end #6

4

Jim flws

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

fls Sue

1 BY MR. GUILD:

2 Q FEMA, in terms of the federal actors, play the
3 role, as well; do they not? -- Federal Emergency Management
4 Agency.

5 A (Witness Robinson) Yes, they do.

6 Q And would you find acceptable to approve in FEMAs
7 role in reviewing the proposed configuration and size of the
8 EPZ?

9 A For lack of a better word, yes.

10 Q Do you know of a better word?

11 A No.

12 Q So they've got to approve as well?

13 A I think so, right.

14 Q And is it a fair characterization that we are
15 talking about this in terms of power relationships, carrot
16 and stick, the stick I guess is that since NRC Staff has
17 responsibility for aproving licenses for fixed nuclear
18 facilities, that you don't get a license unless you get
19 your approval, in this case, for the size and configuration
20 of the EPZ?

21 A That's one of the many factors that goes into
22 getting a license.

23 Q And I don't want to hang myself on technicalities,
24 but at least once you get above 5 percent power under the
25 rules as they stand now, such a stick would be

1 the authority that FEMA has:

2 FEMA would have to also add its approval as a
3 condition of operating a facility?

4 A I think that is correct as an approach to the
5 mechanism.

6 Q Now, just generally then, that's what happens at
7 the beginning of a plant's operation; what happens during
8 the 40 year life of the plant with respect to the responses
9 of the authorities of NRC and FEMA?

10 Do you have to similarly approve every change
11 in the configuration and size of the EPZ?

12 A If you will allow me just a minute, I let counsel
13 borrow my copy of the rules.

14 Q Dangerous thing to do, let lawyers have rules.
15 And what is the relevant reference you have?

16 A It's Part 50, Appendix E, subsection 4g,
17 entitled Maintaining Emergency Preparedness, which reads,
18 "Provisions to be employed to ensure that the emergency plan,
19 its implementing procedures and emergency equipment and
20 supplies are maintained up to date shall be described."

21 The significance of that particular section is
22 that after a plant is licensed that broad language helps
23 ensure that such changes that may be significant in emergency
24 planning are required by the Applicant, or Licensee, in that
25 case, to be made known to the NRC so they can evaluate this.

1 Q All right.

2 A I believe also that -- 5054q is I think the
3 particular section that refers to that responsibility.

4 Yes, the licensee authorized to possess and/or
5 operate a nuclear power reactor shall follow and maintain
6 in effect emergency plans which meet the standards, et
7 cetera.

8 Q All right.

9 And do I understand there, is the same relationship
10 one of approval of significance? -- in this case, as to the
11 configuration and size of the EPZ?

12 A I think if the change in emergency planning with
13 respect to size and configuration of the EPZ is considered
14 significant, then I think approval for that change -- again
15 for lack of better terminology -- would be an adequate
16 approach.

17 Q I am looking here at q, the nuclear power reactor
18 licensee may make changes to these plans without Commission
19 approval only if such changes do not increase the effectiveness
20 of the plan and the plan as changed does continue to meet
21 the standards of 5047b.

22 Is that the operative provision, so far as you
23 know?

24 A Yes.

25 Q So, if you want, they can enhance the effectiveness

1 of a plan and they don't need Commission approval.

2 Is that fair?

3 A Yes.

4 Q Now, you want to know about it, I assume, so you
5 know what's going on out there; but, you don't have to
6 formally approve something that's an improvement of the
7 plan?

8 A Yes.

9 Q Now, what about FEMA's role as far as change in
10 configuration or size of the EPZ?

11 Is there a regulatory provision that you are aware
12 of that FEMA is required to approve such a change?

13 A I really couldn't speak to that.

14 I am not aware of all of their provisions, so as
15 to answer your question.

16 Q Well, are you aware that FEMA does an annual
17 review of emergency planning?

18 Is that their mechanism for reviewing plans and
19 changes to plans?

20 A Well, I know that current regulations require
21 that there be an annual exercise in which such things would be
22 evaluated, I suppose; but not necessarily the exact size and
23 configuration of the EPZ.

24 Q Okay.

25 Let me just see if I can understand this on the

1 perspective of the issue of Contention 11:

2 Let's take Mr. Riley's hypothesis, and that is the
3 situation where because of annexation, for example, the City
4 of Charlotte, North Carolina, expands in the direction of
5 south southeast, and south southwest towards the Catawba
6 facility?

7 It's 9.7 miles from the facility, if you will
8 accept that fact, which does encroach on about 10 miles.

9 But let us say it encroaches further on the 10
10 miles, it gets, you know, another mile or so, to the point
11 where it's now 8 miles to the facility.

12 And -- I'm looking at a map on the wall now --
13 at the proposed extension: Instead of adding EPZ territory,
14 if the EPZ boundary continues to follow the boundaries of
15 the City of Charlotte it would detract or subtract from the
16 area covered by the EPZ.

17 Do you follow me so far?

18 A I understand.

19 Q Okay.

20 Now, if that were the case, would that -- and the
21 state and local officials made the determination to alter
22 the EPZ boundary based on their -- whatever they're looking
23 at -- and with Applicants' input -- would that, in your
24 judgment be the kind of change that under the operative
25 provisions of 5054q would require NRC Staff approval?

1 Would you want to look at it?

2 A I would certainly want to look at it.

3 Part of my testimony indicated that one of the
4 reasons for example at Rock Hill for including a particular
5 additional population in the 10 mile circle did not
6 incorporate this analogy fully, would be because a significant
7 portion of that jurisdiction in terms of its population was
8 included within the 10 mile radius.

9 In the case that you describe the fact that the
10 local people, and that's the key factor, decide that the
11 decrease in the distance along that given line would be now
12 3 miles, if the population was not impacted in any fashion,
13 in that, again, we're not in a situation where we're
14 significantly affecting a jurisdiction; I don't see a
15 problem necessarily of increasing it to that distance. But
16 I definitely would want to look at it.

17 Q And he point that's material is the question of
18 whether or not such a change decreases the effectiveness of
19 the plan?

20 Correct?

21 A That's true.

22 Q And that would be a matter of fact for your to
23 determine, or Staff; correct?

24 A That's correct.

25 Q Now, can we assume that the process would work

1 similarly in the opposite case, where -- not the opposite
2 case, but this case -- the case where we extend the EPZ
3 hypothetically into, for example, southwest Charlotte,
4 let's say, for example, the boundaries that have been proposed
5 in Contention 11.

6 Is that the kind of change in emergency planning
7 -- assuming that the local authorities in cooperation with
8 Applicants -- propose to you or submitted to you revised
9 EPZ size and configuration that reflected expansion of the
10 EPZ in the vicinity of Charlotte?

11 A Let me see if I can rephrase.

12 You are asking me whether or not, if the local
13 government decided that they wanted to extend the EPZ into
14 southwest Charlotte, whether or not that would be -- that
15 would fall under this provision and it would be something
16 that I would want to review?

17 Q Which you have to review?

18 Put it this way: the real point is, is it some-
19 thing that would require Commission approval; that's the
20 language there.

21 A Well, I think in both of the situations, the
22 subtraction and addition, if you will, that you're describ-
23 ing, there are more factors than the one that I just mentioned;
24 and in order for me to determine whether or not the particular
25 significance of either of those situations that you describe

1 would require the Staff to approve, as we characterize it,
2 would depend on the significant effect of each of those
3 factors.

4 So in answer to your question it's difficult in both
5 situations for me to give you an iron clad answer simply
6 because I don't have enough information with respect to all
7 of those factors.

8 Q Is it a fair summary of the relationship of the
9 NRC Staff to this issue that the key question is maintaining
10 the existing level of effectiveness; and that if a change
11 such as an increase in the EPZ into southwest Charlotte
12 enhanced the effectiveness of planning, that it would not
13 be something that would require Commission approval?

14 A Again, if the local governments decided that
15 it was something that they and the licensee at that time
16 would be some thing they both wanted and would increase the
17 effectiveness of the emergency planning within their new
18 defined EPZ, I think that's something the Commission would
19 have to approve.

20 Q Now, I'm looking at 0396 and the references, it's
21 Appendix 1, page 1-2, and I'm looking at the last paragraph
22 on 1-2, and this is why I'm speaking to you, I guess,
23 Mr. Robinson, in part, the last sentence I read, last
24 full sentence:

25 "Radiological emergency planning is not based upon

1 probability, or on public perceptions of the problems and
2 what could be done to protect public health and safety.
3 In essence it is a matter of prudence rather than necessity."

4 Do you agree with that observation, that part of
5 the guidance that you apply in your review?

6 A Well, I don't specifically use this document
7 in my evaluation of the situation.

8 A (Witness Soffer) Could I respond to that?

9 Q Yes?

10 A Well, I believe that represents and reflects the
11 Commission policy and the task force's perception on the
12 necessity for emergency planning in general; that is, that
13 there was a belief by a number of people that the probability
14 of serious accidents is so low that one need not have any
15 sort of emergency plan.

16 And what 0396 is just basically speaking to
17 in that sentence is that we really don't care whether the
18 probability of very serious accidents is very low; we think
19 that emergency planning in general is a prudent and a wise
20 thing to have.

21 However, the size of the emergency planning zones
22 have not been based upon a public perception of risk, but
23 have been based on a more rational determination that we
24 discussed in our testimony, as to what the radiological
25 risk considerations were. And that's what led to a size of

1 10 miles.

2 Q All right, well, let's look at it in a slightly
3 different way, Mr. Soffer, Mr. Robinson:

4 Emergency response planning is to address the
5 perhaps unthinkable but possible --

6 A Well --

7 Q Excuse me, sir, let me finish?

8 -- a serious accident with consequences to the
9 general public, with radiation doses exceeding Protective
10 Action Guides.

11 And in the event that that accident does happen,
12 we're talking about something -- the probabilities become
13 irrelevant -- and we're talking then about people and moving
14 people and how people properly respond.

15 And in that instance, doesn't the referenced
16 observation that "public perceptions of the problem" and what
17 could be done to protect public health and safety, doesn't
18 that observation become material to effective emergency
19 response?

20 A One should separate out emergency response from
21 emergency planning.

22 In the event of an actual emergency the response
23 that would actually be carried out would be the best response
24 that was available to assure that doses were low, that early
25 fatalities were minimized to the extent possible; that early

1 injuries were minimized to the extent possible.

2 However, the extent of planning that should be
3 done in advance of an accident has been delimited by 0396.

4 0396 has indicated that it intends -- it thinks
5 emergency planning is appropriate for a spectrum of accidents,
6 but with regard to the worst-conceivable accident, for
7 example, 0396 -- and I refer you to Appendix III, page 3,
8 of 0396 -- where the 0396 task force -- and I quote now:

9 The task force believes that it is not appropriate
10 to develop specific plans for the most-severe and most-
11 improbable events.

12 And that is basically the essence of what has been
13 put into the regulation.

14 So what the task force is basically saying is,
15 there might be a need to take protective action beyond the
16 10 miles; but we do not see the need to plan beyond 10 miles.

17 Q Well, isn't it fair to say that you accept the
18 probabilities that the Commission Staff employees, all accidents
19 with off-site consequences that require protective action
20 are so remote as to be not worth planning for?

21 A That's one argument that could be used. And the
22 task force has rejected that. And the Commission has
23 rejected it.

24 Q So if you postulate that the planning for an
25 accident --

1 A We're not planning for an accident.

2 Q Okay.

3 A We're planning for a spectrum of accidents and
4 the intent is to have a degree of flexibility in planning.

5 Q All right.

6 A There is a reason for this:

7 Before the 0396 task force came along, we basically
8 did planning for an accident. It was the DBA LOCA accident.
9 And it led to the concept of a low population zone, and there
10 was a stylized representation that planning should be carried
11 out within this zone, and not beyond it.

12 Q Let me interrupt you, sir, at this point. You cut
13 me off last time, but my time is limited.

14 Now, it's all very interesting; but prior to the
15 adoption of the current emergency planning regulation, we
16 basically presumed that if you sited the plant properly, that
17 you would find no need to take protective action off-site.

18 Isn't that essentially the case?

19 A No. It's not the case.

20 Q Well, did you ever postulate a design basis
21 accident where protective action guides would be exceeded?

22 A The protective action guides didn't come into
23 existence until 1979.

24 Q I understand.

25 But the point is, those levels of dose?

1 Did you ever postulate a design basis accident
2 where you'd ever have people who would have to be moved
3 because they would be exposed to health or life-threatening
4 conditions?

5 A There were situations that were postulated that
6 could result in doses exceeding the PAGs off-site; and
7 emergency action were contemplated.

8 But they were contemplated within a much smaller
9 confine.

10 Q And what was that?

11 A Generally the low population zone.

12 Q And approximately what area was that?

13 A For most plants these were typically on the order
14 of 2 to 3 miles.

15 Q Did you have any alert notification system
16 involved?

17 A No, there was none.

18 Q Did you have any detailed planning for evacuation
19 routes?

20 A No, there was none.

21 Q All right.

22 A However, that was the major contribution of the
23 0396 task force, in that it recognized that the concept of the
24 accidents should be extended; and that we should not plan for
25 merely one accident, but we should plan for a spectrum of

1 accidents.

2 Q Do you have Appendix I, Rationale for Planning
3 Basis, page 1?

4 Risk is not generally followed in terms of
5 probabilities and consequences, rather, it is an intuitive
6 feeling of the threat posed to the public. Radiation --
7 excuse me -- reactors are unique in this regard. Radiation
8 tends to be perceived as more dangerous than other hazards
9 because the nature of radiation effects are less commonly
10 understood and the public generally associates radiation
11 effects with the fear of nuclear weapons.

12 Are you simply responding to an ignorant public,
13 Mr. Soffer? Is that the whole point here, that we're playing
14 a game so that the public will be more comfortable with these
15 facilities?

16 A Not at all. Not at all.

17 You are reading from one - from one of the
18 general considerations that went into why the task force
19 chose the basis for what they did.

20 But I would like to go to the bottom of page 5-3
21 and 5-4, where it talks about calculated consequences from
22 a spectrum of postulated accidents.

23 End7JRB
24 Suefls

25

1 And basically, if I may read that paragraph --

2 Q The bottom line there, is you figure out how
3 many people would die, and how many other things you get
4 in those kinds of accidents you plan for.

5 A No.

6 Q Lastly, the calculated consequences from expected
7 or postulating accidents was considered as the rationale
8 for the planning basis.

9 A The Task Force judged that the consequences from
10 the spectrum of accidents should be the principle rationale
11 behind the planning basis.

12 Q And those consequences are deaths and injuries.
13 Cancers.

14 A Those consequences could be doses of other
15 protective action guides.

16 Q My time is very limited, and this is an
17 interesting discussion, and we could probably have -- it
18 is like the bible here, we could find passages in this
19 document, perhaps, that would suit any possible reader, and
20 I am interested in the discussion, but the Chair is going
21 to call time on me very quickly.

22 Mr. Robinson, you, I understand now, in approving
23 the configuration of the present plume EPZ as it relates
24 to Charlotte, and in preparing your testimony, did the
25 additional task beyond reviewing the paperwork of coming
looking at the site, is that a fair statement?

1 A (Witness Robinson) Yes, the EPZ area under
2 consideration.

3 Q And when did you do that?

4 A Let's see. I don't remember the exact date, but
5 it has been as much as six weeks ago.

6 Q How much time did you spend reviewing the
7 appropriateness of the present EPZ boundary?

8 A How much time? You mean actually traveling the
9 area?

10 Q Yes. I mean conventionally -- for example, your
11 I&E people, man-days down. How many man-days did you devote
12 to reviewing the adequacy of the EPZ boundary?

13 A Since it took me -- since I reran the routes
14 yesterday, a good feel for that would be close to half a
15 man-day.

16 Q Half a man-day, okay.

17 A I did it twice, so it is a full man-day.

18 Q And I understand from your responses to Mr. Riley
19 that in large measure you have relied on the evaluation by
20 the Federal Emergency Management Agency for the adequacy
21 of local and state plans, including the configuration
22 size of the EPZ?

23 A I certainly relied on FEMA to evaluate the
24 adequacy of local and state plans, and with regard to the
25 EPZ size and configuration, it is a cooperative effort between

1 the NRC and FEMA.

2 Q Your testimony, page 24 says: Therefore, the
3 Staff looks to FEMA to ensure that the EPZ as defined in the
4 offsite plans is appropriate and compatible with the EPZ
5 described in the onsite plan.

6 A That is right. The key word is, 'compatible'
7 there.

8 Q All right. Now, were you present during the
9 testimony by the FEMA representatives, the FEMA witnesses
10 on Contention 11?

11 A No, sir, I was not.

12 Q Well, it isn't very much. It is page 23.
13 There is only one question, and I will read it: Based on
14 your review of the State and local plans, what is your
15 conclusion regarding the adequacy of the present configuration
16 of the northeast quadrant of the plume EPZ for Catawba?

17 Answer: First, the present configuration meets
18 the quota of ten mile requirements of 10 CFR, Part 50.
19 Second, FEMA finds the configuration of the northeast
20 quadrant of the plume EPZ to be sufficiently adequate to
21 ensure that the general public in this zone can be promptly
22 notified and be able to take appropriate protective actions
23 in a timely fashion.

24 Had you read that before?

25 A No, sir, I have not.

1 Q Were you aware that was the extent of their
2 commentary on this issue? That which I read?

3 A No, sir.

4 Q Were you aware of the degree to which the
5 exercise conducted in February 1984 for the Catawba facility
6 tested the effectiveness of the plume EPZ as it relates to
7 Contention 11, the Charlotte boundary.

8 A You mean that tested the effectiveness of emergency
9 planning within the EPZ in total?

10 Q No. What I am interested in particularly with
11 respect to testing the effectiveness of drawing the line at
12 the city limits of Charlotte with respect to assuring adequate
13 protective response for persons living beyond that line.

14 A I guess I am a little bit confused, because in
15 my experience in emergency preparedness, both as a consultant
16 and now working for the Staff, it is not my understanding that
17 an exercise ever attempts, by its nature, to establish whether
18 or not the particular drawing of the boundaries is adequate.
19 So, I am confused with what you are asking.

20 Q All right. So, while one of the 0396 premises
21 for the ten miles, is that ten miles, if you will, provides
22 an adequate foundation for response beyond ten miles. The
23 adequacy of the ability to respond beyond ten miles for
24 Charlotte, in your view, was not tested in the exercise.
25 You didn't expect it would be.

1 A Not per se.

2 Q Well, I want to direct your attention to
3 Interveners Exhibit EP-32, it is a November 16 letter from
4 the states of North Carolina and South Carolina to FEMA,
5 and it sets forth proposed exercise objectives, and would
6 you accept, subject to check, that there is no exercise
7 objective to test the adequacy of response capability for
8 Charlotte?

9 A Per se I will accept it.

10 Q Or beyond ten miles?

11 A I will accept the objectives of the exercise are
12 not to do so.

13 Q And would accept that the exercise scenario
14 itself modeled a release that would have no consequences
15 requiring protective action beyond the existing boundary
16 of the EPZ into Charlotte?

17 A I will accept the exercise scenario did so.

18 Q For example, particularly you gentlemen's
19 testimony, page 13, reflects the prevailing wind at Catawba
20 is from the southwest, correct?

21 A (Witness Fairbent) Yes, sir.

22 Q And the southwest, is that 225 on the compass?

23 A Roughly, yes.

24 Q Would you accept that the plume pathway direction
25 was from 170 degrees used in the exercise?

1 A Yes.

2 Q That is not the prevailing wind, is it?

3 A No.

4 Q Will you accept that the plume, in fact, is
5 carried to the west of Charlotte into the east of Gastonia,
6 basically about as low population as you can find between
7 those two metropolitan areas, would you accept that, Mr.
8 Robinson?

9 A (Witness Robinson) I would accept that that
10 may have been the scenario.

11 Q Is that a realistic test of the effectiveness
12 of protective response for the City of Charlotte outside
13 the ten mile EPZ?

14 A The regulations require that at each exercise
15 there be some variation in the scenario, and in this
16 particular scenario, as you have represented to me, I would
17 think that it is just as representative as any of the other
18 ones that may vary throughout the life of a plant.

19 Q All right. Although the prevailing wind was
20 not a model in the exercise.

21 A In this particular one; it could be in a future
22 one.

23 Q But you wouldn't rely on that as a test of the
24 adequacy of the response for the City of Charlotte, would you?

25 A On this particular scenario?

1 Q Yes.

2 A Well, I wouldn't rely, in the scope of my job,
3 on any of the ones, no matter what wind direction the
4 scenario developed.

5 Q It is a fair conclusion though, Mr. Robinson,
6 if the plume is modeled not to hit Charlotte, it doesn't
7 test very effectively response in Charlotte, correct?

8 A Well, its goal is not to do so in the first
9 place, as I understand it.

10 Q Well, if you are going to accept that as a goal,
11 which doesn't seem unreasonable to me, you wouldn't do a
12 very effective job if the plume didn't hit Charlotte.

13 A I think within the scope of your hypothetical
14 example, I suppose it is true.

15 Q And finally, with respect to reviewing local
16 emergency response needs and capabilities, are you aware
17 that such a task was put to the Charlotte-Mecklenburg
18 Emergency Planning Review Committee?

19 A Could you be more specific?

20 Q Sure. That the County of Mecklenburg appointed
21 a review committee to look at just this issue, the
22 effectiveness of response, needs and -- well, the effectiveness
23 of emergency response capabilities, given needs for Charlotte
24 and the issue extending the EPZ to cover parts of Charlotte
25 such as is represented by Contention 11. Were you aware

1 of that?

2 A I was present earlier this week. If it refers
3 to some committee meeting, then I have that much familiarity
4 with it, otherwise, no.

5 Q Would you agree that in your role, or the role
6 of the NRC in reviewing the effectiveness of the EPZ
7 configuration, with regard to local emergency response needs
8 and capabilities, that the results of a study conducted by
9 a committee to look at just that issue, is something that
10 you should consider?

11 A It is not within the scope of job to look at
12 such information.

13 Q You don't care about the input from bodies that
14 are established by local government, local officials, to
15 review the adequacy of emergency response capabilities?

16 A Mr. Guild, it is not within the scope of my job
17 to seek out such information. As I pointed out in my
18 testimony, I relied very heavily on FEMA to evaluate those
19 kinds of information, and if in their interim and final
20 finding they did not provide me with any information that
21 demonstrates a deficiency in that area, I have no reason
22 to further seek out such information.

23 Q I appreciate your candor in this respect.

24 JUDGE MARGULIES: Mr. Guild, your time is running
25 out.

1 MR. GUILD: May I finish this point?

2 JUDGE MARGULIES: Yes.

3 BY MR. GUILD: (Continuing)

4 Q I appreciate your candor in explaining not
5 seeking that information out, and generally the review of
6 the paperwork that comes to you, but I am telling you this
7 now, in a resolution adopted by that committee, urging
8 that such an extension of the EPZ be accomplished based on
9 the findings that needs and capabilities so dictate, would
10 you consider that, and would that weigh in your judgment
11 that the EPZ should, in fact, be extended to include parts
12 of Charlotte?

13 MR. MCGURREN: I object. It has been asked
14 and answered.

15 MR. GUILD: It hasn't. The gentlemen said he
16 was not aware of it, and I am asking him, now that he is
17 aware of it, does it bear on his judgment.

18 JUDGE MARGULIES: I will permit the question.

19 WITNESS ROBINSON: I think the kind of information
20 that you are speaking of is a precursor-type of information,
21 in that a given municipal committee that makes such a
22 recommendation until it gets to the stage where, through
23 formal presentation to the Staff, that it has been decided
24 as part of local needs and capabilities, that Mecklenburg
25 County, or what have you, wants to change, in mutual

1 cooperation with the applicants configuration of the EPZ,
2 I would have no reason to review such information.

3 Q So it would not bear on your judgment until
4 someone made a formal submission to you. You wouldn't go
5 out and seek out this information or integrate it on the
6 basis of the findings of this Committee?

7 A In its present precursor form, I would not.

8 MR. GUILD: Thank you.

9 JUDGE MARGULIES: Applicant may examine.

10 CROSS EXAMINATION

11 BY MR. McGARRY:

12 Q Mr. Robinson, I believe there were some questions
13 directed to you concerning the size of the EPZ. To your
14 knowledge, has any EPZ that you are familiar with been
15 significantly extended beyond ten miles, such as perhaps
16 thirteen to seventeen miles?

17 A (Witness Robinson) My particular experience,
18 other than in the case of Catawba or Rock Hill, I have no
19 knowledge of such an extension.

20 Q Mr. Soffer, a question concerning the reator
21 safety study, and how many sequences were considered in the
22 reactor safety study, I believe you stated that with respect
23 to dominant sequences, there were over fifty, is that
24 correct?

25 A (Witness Soffer) I believe that is correct.

1 Q Am I correct in stating that there were thousands
2 of sequences considered in the reactor safety study?

3 A That is correct. There were over a thousand --
4 there were thousands of sequences that were actually
5 considered, but probably of those, only fifty appeared to
6 be dominant sequences.

7 Q There was some discussion about prior period,
8 NUREG 0654. Am I correct, gentlemen, that the Commission
9 recognized that no planning was necessary outside the EPZ,
10 but that the planning within the EPZ could be expanded upon
11 if necessary?

12 A (Witness Robinson) That is correct.

13 A (Witness Stoffer) That is correct.

14 Q There was some discussion about a worst case
15 scenario, wherein a plume would arrive at the Charlotte
16 boundary in one hour and twenty minutes.

17 Do any of you gentlemen have an opinion of what
18 would be the probability of such an event; perhaps not in
19 absolute terms, but in realistic terms.

20 A I certainly can't quantify it. I would say it
21 is a very small fraction of the probability of such a
22 release occurring in any event, so that I would say it is
23 probably on the order of 10 to the minus 7th, and very
24 likely significantly less.

25 JUDGE HOOPER: Is that a conditional probability?

1 WITNESS SOFFER: That is an absolute probability.

2 WITNESS FAIROBENT: The meteorological conditions
3 that would lead to that are probably a percent or two
4 overall. It wouldn't be very much.

5 WITNESS SOFFER: Implicit in that is an absolute
6 probability of the worst case release happening with in
7 roughly on the order of 10th to the minus 5, and that
8 perhaps those kind of meteorological conditions and wind
9 directions would simultaneously occur one percent or less.
10 That is what led to the 10th to the minus 7th.

11 BY MR. MCGARRY: (Continuing)

12 Q Now, gentlemen, am I correct in my understanding
13 that NUREG 0396 recognized that protective action guides
14 could be exceeded approximately thirty percent of the time?

15 A (Witness Soffer) That is right, and our testimony
16 in fact so states.

17 Q And yet, even recognizing that that could occur,
18 the Commission, using 0396 as a planning tool for the rule
19 that determined that approximately a ten mile EPZ would be
20 satisfactory, is that correct?

21 A That is correct.

22 Q Discussion of the frequency of the wind associated
23 with the Catawba site, which reflects approximately thirty-
24 three percent of the time the wind moves in the direction of
25 the City of Charlotte, would -- with such wind movement,

1 would one get some measure of dispersion?

2 A (Witness Fairbent) I am not sure where you
3 are going. I don't understand that question.

4 Q The question -- the frequency of the wind direction,
5 vis-a-vis Charlotte and Catawba indicates that the wind blows
6 in the direction of Charlotte approximately thirty-three
7 percent of the time, is that correct?

8 A That is correct.

9 Q If the wind is blowing toward Charlotte, or if
10 the wind is blowing in any direction, is it not reasonable
11 to assume there would be some measure of dispersion associated
12 with such wind?

13 A Certainly.

14 Q I believe, Mr. Robinson, there was discussion
15 about the boundary of the EPZ in relation to Charlotte, and
16 Mr. Riley asked you if the EPZ boundary around Charlotte
17 at its furthestest point was nine point seven miles, but
18 isn't it a fact that at other points in the EPZ boundary,
19 the City of Charlotte is almost eleven and a half miles?

20 A (Witness Robinson) That is correct from my
21 understanding.

22 Q Mr. Robinson, is it required by Commission
23 regulations that there be citizen input into the establishment
24 of the EPZ boundary?

25 A Not that I know of, no, sir.

1 Q In your discussion with Mr. Broome and Mr. Glover,
2 did they consider the factors listed in 10 CFR 5047 in
3 establishing the EPZ boundary?

4 A Yes, sir, and in my testimony it is so stated.

5 Q Mr. Soffer, you had earlier indicated that a
6 rainout would generally increase the chance of an individual
7 fatality by about a factor of ten, is that correct?

8 A (Witness Soffer) That is what I indicated,
9 yes.

10 Q Does that factor of 10 include the probability
11 of the rainout occurring over the individual at risk?

12 A I don't quite understand your question.

13 Q You assumed a factor of 10 would be associated
14 with a rainout situation.

15 A What I said was that if a rainout from looking
16 at the tables in page 15 and 17 of the testimony, that had
17 the rainout not occurred at the 17 to 20 mile interval, the
18 dosage would have probably been about a factor of ten or
19 lower.

20 Consequently, since the rainout could have occurred
21 at any one of those intervals, it might be higher by a factor
22 of ten.

23

24

25

#9-1-SueT

2 Q But then wouldn't one want to know what the
probability of the rainout would be?

3 A That probability has already been factored in,
4 and is given, for example, on Page 17.

5 Q So that would not affect your factor of ten?

6 A It would not, no.

7 Q Mr. Fairobent, is it not true that conservative
8 meteorology occurs less than five percent of the time?

9 A (Witness Fairobent) That's one definition.

10 Q Do you accept that definition?

11 A In that context, yes.

12 Q Mr. Robinson, I believe for you, if a fast
13 developing accident were to take place, as described by
14 Mr. Riley, the hour and twenty minute scenario, and an hour
15 and twenty minutes was all the time available to take
16 protective actions outside of ten miles, what would seem to
17 be the appropriate action if evacuation time estimates in-
18 dicated that five hours and fifteen minutes would be neces-
19 sary to evacuate?

20 A (Witness Robinson) The first thing that comes
21 to mind is informing the people in that area to take
22 shelter.

23 Q And isn't it true that to get these people to
24 take shelter, all that is necessary is to run EBS messages
25 and have emergency vehicles run the routes and give such

#9-2-SueT,

messages?

2 A That's the concept as I understand it. Yes,
3 sir.

4 Q Then -- strike that. We are assuming a plume
5 moving in the direction of the City of Charlotte, an hour
6 in twenty minutes, in your opinion as an emergency planner,
7 would the emergency response focus in that particular sector,
8 would the effort be directed to that sector?

9 A If you are saying would the emergency planning
10 effort be focused within the sector of the movement of the
11 plume, yes.

12 Q And then assuming that the focus is on that
13 sector, in your opinion, based on your knowledge of the
14 capabilities associated with this particular emergency
15 plan, do you believe that the appropriate EBS message could
16 be delivered in an hour and twenty minute period?

17 A I feel that it could.

18 Q Mr. Fairobent, is it generally true that stagnate
19 air conditions imply low wind speeds and, therefore, slow
20 plume movement?

21 A (Witness Fairobent) This is true.

22 Q Now, Mr. Robinson, given a slow plume movement,
23 doesn't that normally mean an increase in the time available
24 for protective actions?

25 A (Witness Robinson) Yes, sir.

#9-3-SueT,

1 Q Now, with respect to the discussion concerning
2 the exercise, since the wind does not blow in the three
3 sectors under discussion that involve the City of Charlotte,
4 let me -- strike that.

5 The evidence indicates that the wind blows in
6 the three sectors associated with Charlotte approximately
7 thirty-three percent of the time; therefore, approximately
8 sixty-seven percent of the time it does not blow in that
9 direction; is that correct?

10 A (Witness Robinson) Yes.

11 (Witness Fairbent) Yes.

12 Q Therefore, isn't it reasonable for the exercise
13 to focus on an area that may not encompass these three
14 sectors of Charlotte?

15 A (Witness Robinson) It seems to me by that calcula-
16 tion it's more reasonable for it not to focus on those three
17 sectors.

18 Q Now, gentlemen, is it true that your testimony
19 reflects that in your review you have found nothing concern-
20 ing -- nothing unique concerning Catawba from the standpoint
21 of the Commission's regulations with respect to things like
22 demography, topography, access routes?

23 A Yes. I have stated in my conclusion -- I believe
24 my answer to Question 31, that I say again: It should be
25 again noted that Staff finds Applicants' determination

9-4-SueT

1 of the current EPZ boundary in the northeast quadrant to
2 comply with 10 CFR 50.47(c)(2).

3 Q So from that standpoint, in your opinion, there
4 is no need to expand the current EPZ?

5 A That's correct.

6 Q Were you here when Mr. Broome testified?

7 A Yes, sir.

8 Q And you are aware he is in charge of emergency
9 planning for Mecklenburg County?

10 A Yes, sir, I am.

11 Q And he testified with respect to the amount of
12 resources available to him.

13 A Yes, sir.

14 Q And he also testified with respect to the plan
15 that he had in place?

16 A Yes, sir.

17 Q Do you have any basis to doubt his testimony that
18 he believes these capabilities and his plan would permit
19 him to properly respond to an emergency situation if neces-
20 sary?

21 A No, sir.

22 Q And by him, I mean the County?

23 A No, I have no doubt about that information

24 Q Mr. Fairbent, I am going to show you the
25 Sandia siting document and ask you to look at Page A-21,

#9-5-SueT₁

1 which is a Table A-4-1, Site Windrose Data Probability of
2 Wind Blowing Toward Sector.

3 Do you have that before you?

4 A (Witness Fairbent) I do. I have a copy.

5 Q Directing your attention to the left hand column,
6 we find Catawba at the bottom of the page; is that correct?

7 A Yes, sir.

8 Q And if we look over into the particular categories,
9 we see under the north northeast, south southeast category,
10 point zero five six and point zero seven nine. Let's just
11 direct ourselves to north northeast at point zero five six.
12 The northeast point two zero seven, east northeast, point
13 zero eight seven.

14 Are you aware of where those data points came
15 from?

16 A My understanding is they came from the off-site
17 meteorological measurements program conducted at Catawba
18 for the CPF location.

19 Q Do you presently subscribe to the values?

20 A I think there are better data available.

21 Q Do you have any opinion of what that data would
22 reflect?

23 A Probably a reduction in the frequency of winds
24 blowing towards the northeast from the twenty point seven
25 percent indicated here.

#9-6-SueT,
1

2 Q And what would be the reduction, to the best
of your knowledge?

3 A Probably a seven percent reduction, bringing it
4 down to thirteen to fifteen percent.

5 Q Mr. Robinson, what was the purpose of the drill
6 which was conducted which Mr. Guild questioned you upon,
7 to test the response of the City of Charlotte, an area out-
8 side the EPZ?

9 A (Witness Robinson) No, sir.

10 Q Are you aware of any regulatory requirements that
11 call for the NRC to test the response of an area outside the
12 EPZ?

13 A No, sir.

14 Q Mr. Guild read to you a FEMA -- piece of FEMA
15 testimony. I believe your testimony indicates that you work
16 in cooperation and in conjunction with FEMA; is that cor-
17 rect?

18 A That's correct.

19 Q And are you familiar with the fact that FEMA
20 indeed has conducted a review of the emergency plan?

21 A Yes, I am.

22 Q And you familiarized yourself with that review?

23 A Yes, I have.

24 Q And that review is not limited to that one
25 quotation that Mr. Guild referred you?

#9-7-SueT,

A Absolutely not.

2 Q It was a fairly detailed review; is that
3 correct?

4 A That's correct.

5 Q And that review would include a review of the
6 EPZ by FEMA; is that correct?

7 A Oh, yes, sir.

8 MR. MC GARRY: No further questions.

9 JUDGE MARGULIES: Judge Hooper.

10 BOARD EXAMINATION

11 BY JUDGE HOOPER:

INDEXXXX 12 Q Mr. Fairbent, a minute ago you just told the
13 Applicants' counsel something about an improvement in the
14 meteorological data. I could not hear you, so I'm not sure
15 what you were saying.

16 Would you please explain where you came up with
17 an improvement of twelve to thirteen percent?

18 A (Witness Fairbent) Okay. The purpose of the
19 meteorological data collection program at the site --

20 Q Go a little slower. Would you please slow down
21 so we can all understand you. You speak so rapidly that
22 it's hard for me to get your words.

23 A Understood. The purpose of the data collection
24 program at Catawba, or any other power plant, is to collect
25 representative meteorological information. We try to get

#9-8-SueT 1 a sufficient data set to provide representative conditions
2 over the lifetime of the plant. We can take a certain
3 limited data set and consider it to be representative. We
4 do this by comparison of the outside record with available
5 long term information.

6 In the case of Catawba, we have thirty years of
7 information from the Charlotte Airport.

8 Q From what airport?

9 A Charlotte.

10 Q Charlotte? All right.

11 A The data set provided with the construction
12 permit application indicated twenty point seven percent of
13 the winds blowing from the southwest towards the northeast.
14 After review of the additional information provided by the
15 Applicant with the OL application and review of the informa-
16 tion at Charlotte Airport for about thirty years of record,
17 it appears to me that a more representative frequency of
18 the winds blowing from the southwest to the northeast is
19 about thirteen percent.

20 Q Thirteen percent.

21 A It could range between ten and fifteen percent.

22 Q This then is using the local conditions of the
23 Charlotte Airport to improve your calculation?

24 A To extend our understanding of the area.

25 Q And do you have any reason to believe that the

#9-9-SueT₁

1 local meteorology of the Charlotte Airport differs from
2 the local meteorology at the Catawba site?

3 A There will be some differences in terms of wind
4 direction. I don't think these differences are significant.

5 Q Are there any orographic effects at the Charlotte
6 Airport that you would not have? Would there be differences in
7 orographic effects?

8 A There are differences. I think the differences
9 are slight and do not impact the large scale wind flow.

10 Q Earlier on, there was a lot of discussion about
11 inversions, and the record was left sort of dangling about
12 inversions. And I wanted to get into inversions a little
13 bit here.

14 Are there any different kinds of inversions, Mr.
15 Fairbent?

16 A Yes, there are.

17 Q Would you like to explain the different kind
18 of inversions there are?

19 A Yes, sir. There are ground base inversions and
20 inversions of loft which I refer to as substantive inver-
21 sions.

22 Q What would -- how would you characterize the
23 ones that we were talking about, that you were questioned
24 about, weather bureau inversions?

25 What type are they?

#9-10-Sue

2 A The weather bureau measure some ground base
3 inversions that are most accurate at representing elevated
or substantive inversions.

4 Q And so they would be -- what would be the eleva-
5 tions of substance inversions?

6 A Oh, they could be on the order of thousands of
7 feet or more.

8 Q Do they have very much affect upon the wind
9 velocities at the surface?

10 A The inversions themselves do not, sir. They
11 do represent a condition that would lower the wind speeds
12 at the surface.

13 Q That's what I mean, the conditions. How would
14 they compare -- how would an air mass or substantive inver-
15 sion compare with its effect on the wind velocities near
16 the ground?

17 What would an inversion do to the radiation of
18 cooling?

19 A An inversion due to radiation of cooling would have
20 a more significant impact on wind velocities near the ground.

21 Q Would this be a major or a large difference?

22 A A typical substantive inversion has wind speeds
23 near the surface probably on the order of five to seven
24 miles an hour. The ground base inversions could have wind
25 speeds much less, on the order of about several miles an hour.

#9-11-SueT

2 Q All right. Now there is another point where
3 you were talking about the probability of seven and a half
4 miles wind speed, and occurring simultaneously with a period
5 of exceedingly poor dispersion.

6 What would you say would be the probability of
7 having a Pasquill G and a seven and a half mile wind?

8 Do you have any feeling about how often this
9 would happen?

10 A It probably happens less than one percent of the
11 time.

12 Q One percent? Is this an off the top of your head
13 guess, or is this something you have some data on?

14 A Right now it's off the top of my head. The
15 information in the Final Safety Analysis Report would con-
16 firm my estimate.

17 Q If you were sampling a compilation of the
18 probability data that was used in this analysis, sampling
19 the winds through the one year period or -- I think you
20 have two years data, you only sampled one of them, would
21 you apt to find that particular combination of the seven and
22 a half mile wind velocity at a Pasquill G in that array of
23 data?

24 A (Witness Soffer) If it existed, I'm confident
25 we would find it. The sampling scheme that's chosen is to
take ninety-one times throughout the year, four days apart,

#9-12-SueT

1 taking one day sequence, taking one night sequence, and
2 alternating so that we sample day -- accidents that start
3 during the day, accidents that start during the night. And
4 because of the duration of the accident, we essentially
5 sample the entire year's worth of meteorology. That's if
6 that existed I'm confident that it would be reflected.

7 (Witness Fairbent) Let me expand on that. We
8 do make every effort to use a representative one-year
9 sample in that kind of calculation.

10 Q Well, what would be the more usual wind velocity
11 if you have a Pasquill of G or something like that?

12 A Two meters per second or less.

13 Q There is another part of the testimony that I
14 think came in today that bothered me a little bit, the
15 rainfall situation.

16 If we go back to your table here and you notice
17 that on Page 15, your table at the bottom of the page, and
18 we note that the -- we have a change from -- going from nine
19 to eleven and back to ten.

20 A That's right.

21 Q Is that a nominally of the particular set of
22 data you sampled in this scheme?

23 A (Witness Soffer) Yes, it is.

24 Q Now, my question is, if you then said we will
25 use a factor of ten and you took it from this table, that

#9-13-SueT,

was based simply on what you saw in this table; was it not?

2 A That's right. That was an estimate based on the
3 table.

4 Q I would like to ask Mr. Fairobent if the -- what
5 looks like sort of a nominally situation here, could this
6 have occurred a mile from the plant or two miles from the
7 plant?

8 A (Witness Fairobent) The percipitation?

9 Q Yes.

10 A Yes, sir.

11 Q Would it have had the same amount of activity
12 in it? Could you hypothesize a rainfall of this extent
13 with the maximum burden of radiation if it were one mile
14 from the plant?

15 Do you see what I mean?

16 A Well, the concentration of radioactivity in the
17 plume closer to the plant would be higher. The rainfall
18 being the same would scavenge out the same amount of radio-
19 activity. I take that back. It would scavenge out radio-
20 activity according to the concentration of material in the
21 plume; therefore, you would have more taken out closer to
22 the plant.

23 Q But is there any sort of a distance by which in
24 an air mass thunderstorm or some situation like this which
25 is a minimum dispersion distance involved, the material would

#9-14-SueT,

1 be carried? In other words, does this affect your probabi-
2 lity scheme, so to speak?

3 A I think the answer to your question is no, it
4 does not affect the probability scheme.

5 Q Is there any differences in the probability of --
6 if you imagine, particularly convective systems such as this
7 that would either enhance this, would change the probability
8 one way or the other?

9 A If you have the conditions conducive to convective
10 air mass thunderstorms, there will be better dispersion con-
11 ditions than you would get for ground base inversion with
12 no precipitation.

13 Q What I'm saying is, if we took that factor of
14 ten to the minus one and projected these risk values all
15 the way into the -- we could take that and apply these all
16 the way into the site, could we, without any corrections
17 due to other meteorological phenomena?

18 I guess I'm asking him this.

19 A (Witness Soffer) I think there might be some
20 corrections. I'm not sure exactly how they would apply as
21 you got closer into the site.

22 Q Another question came up a minute ago. Someone
23 hypothesized a person standing ten miles from Rock Hill and
24 ten miles from Charlotte. And I believe you said that the
25 risk would be greater to the person standing in Charlotte.

#9-15-SueT1

1 A I said that it would be greater assuming that
2 the fraction of the wind, that the percentage of the time
3 that the wind blows is greater in that direction. And it
4 would be greater by that ratio.

5 Q Well, now if you go to your Table 15, could you
6 use those individual risk of early fatalities there? Could
7 you use that?

8 How would this apply to those two people?

9 A Well, I would prefer to use -- you could use
10 either the Table 15 or the Table 17.

11 Q Yes. The other is a condition probability.
12 Let's use those.

13 A All right. Let's look at the condition probability
14 on Page 17. If you are hypothesizing an individual at ten
15 miles, these numbers would be slightly different because
16 basically the calculation assumes an individual at the mid-
17 point of that interval, so it would really apply to an
18 individual at about eleven and a quarter miles, to be a
19 little more precise.

20 Q Let's take that situation in both cases.

21 A It says that if the frequency of the wind blowing
22 is precisely six and a quarter percent, uniform probability,
23 then given that a core melt does occur at the Catawba site
24 an individual located at that distance who takes no
25 protective actions for twenty-four hours following a period

#9-16-SueT

1 of the core melt has a probability of one point four times
2 ten to the minus four, which is approximately one chance in
3 ten thousand of suffering early fatality as a result of that
4 core melt.

5 Now, if he is standing in a sector where the wind
6 blows twice as frequently as that, then his chances would
7 be approximately two chances in ten thousand.

8 Q Now, what would be the difference between the
9 two people we were talking about a minute ago?

10 Can you do that for me?

11 A Well, it's a difference between two chances in
12 ten thousand minus one chance in ten thousand.

13 Q Is the wind direction exactly twice? Is that --

14 A No. I'm just postulating if that were the case.

15 Q What if you were to use the actual wind
16 direction?

17 A I don't know the actual wind direction. I
18 don't have that information.

19 Q Well, would it be as much as twice, or would it
20 be something less than twice?

21 Maybe Mr. Fairobent can answer that.

22 A (Witness Fairobent) It would probably be a
23 little more than twice, more like four.

24 Q So in one case it would be two point eight times
25 ten to the minus four?

#9-17-SueT₁

1 A (Witness Soffer) That's right. And I indicated
2 in my previous response that I felt that both of those
3 values were so low that I believe there is really no signi-
4 ficant difference between them.

5 Q Now I have a problem with this table. I can't
6 quite rationalize all of the data.

7 Now this table on the top of Page 14 of -- I'm
8 sorry, Page 17, this is individual risk of early fatality.

9 A That's right.

10 Q And your other table I believe was not of early
11 fatality. This was a risk of -- that was. But how does
12 this compare with the risk figures that were in Mr. Potter's
13 testimony?

14 He was talking about a different kind of risk.
15 How does his table -- I have Table 2.

16 A I don't remember all of Mr. Potter's testimony.
17 I believe that he was presenting information on the pro-
18 bability of exceeding various doses.

19 Q Various doses. That's correct.

20 A And it was just presented as, you know, exceeding
21 a level dose of X or Y or Z, et cetera.

22 Q Well, that's my next question. How does the
23 risk figure for early fatality compare with the risk figure
24 that he has for whole body, two hundred?

25 A Okay.

#9-19-SueT

Q So I can compare your data. That's what I'm trying to do.

A It is a little bit of an apples and oranges comparison, of course, because the risk of early fatality that has been presented here does not assume that individuals receiving two hundred rem would undergo early fatality.

The assumptions underlying this calculation assume supportive medical treatment and assume for that that fifty percent of the population would have early fatalities at a dose of approximately five hundred rem whole body. Consequently, these numbers apply really for acute doses of five hundred rem.

The question then becomes as to whether we can arrive at some sort of a judgment as to how to adjust these numbers to look at two hundred rem doses versus, say, a five hundred rem number. And I think that that can be done by examining the FES. And if you look on Table 5.11 and Table 5.12, you will see that at the tenth of the minus eight the probability level, the number of individuals that would be exposed to over two hundred rem is forty-four thousand, whereas at the same probability level the number of early fatalities that would be expected assuming the evacuation for the EPZ is nineteen thousand.

Q You have to pardon me here. You are working too fast for me. I've got to find this table. Now, would you repeat that?

end #9
Jim flws

flsSue

1 WITNESS SOFFER: What I'm saying is that if one
2 examines at the 10^{-8} probability level, in Tables 5.11 and
3 Table 5.12, one sees that the number of persons exposed over
4 200 rem is given at 44,000 in Table 5.11; in 5.12, for the
5 same corresponding probability, the number of early fatalities
6 that are expected at 19,000.

7 So there is roughly about a factor of three.

8 I would say that in my judgment this same kind of a
9 factor could be applied here to adjust these probabilities,
10 that is, it would increase by approximately a factor of 3,
11 to arrive at the approximate probability of an individual
12 receiving a dose of over 200 rems.

13 BY JUDGE COOPER:

14 Q The data set that you used for your calculations
15 here, that was a different data set than was used by
16 Mr. Potter?

17 A (Witness Soffer) Yes, it was.

18 Q One other final point, if you read on page 16
19 the last sentence says, this is shown below; and you go to the
20 next page and it says, this shows that:

21 I assume you mean the table, that for Catawba
22 meteorology, given a core melt accident there's less one
23 chance in a hundred.

24 Now, where do you get the once chance in a
25 hundred?

1 A The one chance in a hundred was basically an
2 examination of Figure I- -- my interpretation of Figure I-11,
3 NUREG 0396.

4 Q Oh! See, this is very confusing.

5 You say "this," and I assumed what you're talking
6 about is the table above, and I assumed that the one chance in
7 a hundred had something to do with the table immediately
8 above.

9 A I apologize for that. That is probably -- what I
10 am intending to show here is that using severe accident
11 and the Catawba site meteorology, there is a reasonable chance
12 with Figure I-11, NUREG 0396 and that they would show roughly
13 the same shape and the same kind of distance behavior.

14 Q Well, thank you for -- I spent two hours trying
15 to rationalize this.

16 A I apologize for that confusion.

17 BY JUDGE LAZO:

18 Q I have one question for Mr. Robinson.

19 During a colloquy with Mr. McGarry, counsel for the
20 Applicant, I think you agreed that the wind direction in the
21 three sectors which involve Charlotte, that the wind direction
22 would fall within one of those three sectors approximately
23 33 percent of the time.

24 Is that correct?

25 A (Witness Robinson) I believe so, yes, sir.

1 Q And then, I may have misunderstood his question,
2 but I think he said, in designing a model for a EP exercise
3 would it be reasonable to project a wind direction in some
4 other part of the 67 percent of the windrose.

5 And I think you said "yes" to that.

6 Do you recall that question?

7 A I think I said that it would be reasonable to
8 project in the 67 percent wind direction, just as reasonable
9 as in the other direction, at the time.

10 Is that what you're getting at, sir?

11 Q Yes, that's what I thought your answer was.

12 All right, very well; thank you.

13 JUDGE MARGULIES: We have a number of matters to
14 take up this afternoon, and one of the things we're going to
15 have to try to resolve over the luncheon recess is where
16 we are going to have the next session.

17 And so far we have not been able to get the
18 courtroom in Rock Hill.

19 MR. MC GURREN: Your Honor, shall we go on to
20 redirect?

21 JUDGE MARGULIES: Well --

22 MR. MC GURREN: I just have one question.

23 JUDGE MARGULIES: Oh, okay.

24 MR. MC GURREN: Thank you.

25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

REDIRECT EXAMINATION

BY MR. MC GURREN:

Q I want to clear this up, because I think Mr. Soffer misspoke with regard to answering questions regarding taking protective actions.

Outside of the plume EPZ, I think you said, taking, planning, actions -- it was a question by Mr. Riley, do you recall?

A (Witness Soffer) I don't recall the question.

Q I think it had to do with discussions regarding projected doses in the risk assessment of a core-melt?

A I don't recall.

I can't recall precisely, but if I can approximately reconstruct what I would have intended to say is, that it was certainly anticipated that responses beyond 10 miles would be necessary in the worst accidents.

0396 clearly envisions this, clearly sees it as a possibility; but it just as clearly says that planning should not be required beyond 10 miles.

MR. MC GURREN: Thank you, sir.

That's all I have, your Honor.

JUDGE MARGULIES: Do you know how much recross we have?

MR. RILELY: Well --

JUDGE MARGULIES: From a scheduling standpoint,

1 whether we recess at this point or --

2 MR. MC GURREN: Your Honor, would recross be
3 based on redirect?

4 JUDGE MARGULIES: Well, we have the matter of
5 questions that the Board asked, and then there may be certain
6 matters that require clarification that Applicants' counsel
7 asked.

8 MR. RILEY: I think I have about 15 or 20
9 minutes.

10 MR. GUILD: I have about that same amount of time.

11 JUDGE MARGULIES: We will recess for lunch
12 at this point.

13 We have to straighten out the matter of facilities
14 for the next session.

15 And this afternoon we will take up the matter of
16 the subpoenas and hear any argument on the request for
17 subpoenas, and take whatever action is necessary.

18 We will recess until quarter of two.

19 (Whereupon, at 12:21 p.m., Friday, May 25, 1984
20 the hearing was recessed, to reconvene at 1:45 p.m., this same
21 day at the same place.)

22

23

24

25

1 AFTERNOON SESSION

2 (1:45 p.m.)

3 JUDGE MARGULIES: Come to order, please.

4 Intervenors, you may examine.

5 RECROSS-EXAMINATION

6 BY MR. RILEY:

XXXXXXX

7 Q Mr. Robinson, are you familiar with the farthest
8 extent of the San Juan-Capistrano-San Onofre EPZ?9 A (Witness Robinson) Not right off the top of my
10 head, no, sir.11 Q Subject to check, would you accept it as 13
12 miles?

13 A Yes, sir.

14 Q Would you say, then, that the present EPZ exceeds
15 this or is essentially equivalent to it, or make some sort of
16 a judgment of that sort?17 A I would say that at certain points it is essentially
18 the same.19 Q Turning to the windrose data in NUREG 2239,
20 Mr. Fairobent, as I understand it, you felt that the Charlotte
21 Airport weather incidents of between 10 and 15 percent
22 -- you said 13 percent was perhaps a better representation
23 than this 20.7 percent shown?

24 A (Witness Fairobent) In that one sector; yes.

25 Q All right.

1 Now, what can you say about the wind incidence in
2 the adjoining sector, south southwest and west southwest
3 on the same Charlotte Airport data base?

4 A The south southwest information should be on the
5 order of 9 - 10 percent, probably; and --

6 Q 10 percent?

7 A 9 to 10.

8 Q All right.

9 A And for the west southwest probably a little lower,
10 5 or 6 percent.

11 Q Well, if I add the 13 percent and 9½ percent, I
12 get 22½ percent; if I add to that 5½ percent, I get 28
13 percent; is that right?

14 A I think so.

15 Q And that's not that different from the 33 percent
16 in your testimony?

17 A Not at all, sir.

18 Q Now, I'll give you a map of Charlotte -- here --

19 (Mr. Riley bringing document to witness table)

20 Are you familiar with this representation, the
21 map of Charlotte? It consists -- this is the location of
22 the Catawba plant; this is the Charlotte Airport; this is the
23 northeast sector in relation to the plant, et cetera
24 (indicating map)?

25 A Yes, sir.

1 Q All right.

2 Is that in your judgment a proper representation
3 of things?

4 A Looks okay.

5 Q All right.

6 Now, if we take this as the 10 mile radius
7 (indicating), and I'm using my pencil to makr off a certain
8 length (indicating).

9 And we go to the airport, is it not reasonable
10 to say, then, that the distance from the Catawba plant --
11 I'm sorry -- from the airport weather station to the center
12 of the southwest sector, is approximately 8 miles?

13 Oh, sorry, slipped -- let's do it again?

14 (indicating on map)

15 A It looks more like 4 miles.

16 COURT REPORTER: Please give me your answer again,
17 Mr. Witness?

18 WITNESS FAIROBENT: It looks more like 4 miles.

19 BY MR. RILEY:

20 Q And could there be an appreciable difference, then,
21 in terms of estimating wind direction and frequency for that
22 4 mile distance as well as there is apparently for this
23 approximate 13 mile distance (indicating)?

24 A (Witness Fairobent) The windrose information
25 from the Charlotte Airport shows -- would be a good indicator

1 at 4 miles away.

2 Q But just as it is not identical to the Catawba
3 Airport data, could we not say that it is probably not going
4 to be identical to the data in the southwest sector?

5 A I think it would be -- the information in the
6 southwest sector -- would be more like Charlotte at that
7 distance than it would be Catawba.

8 Q But the word was "more like" not "identical"?
9 Is that correct?

10 A That is correct.

11 MR. RILEY: This map is Intervenor Exhibit No. 50.

12 (Mr. Riley returned to his seat at the counsel
13 table)

14 BY MR. RILEY:

15 Q Now, with reference to wind incidences -- and the
16 number that was used was 32 percent in the three sectors
17 which include Charlotte, and Mr. McGarry pointed out
18 the rest would be 67 percent.

19 You recall that, Mr. Fairobent?

20 A (Witness Fairobent) Yes.

21 Q The percentage of full circle the three sectors
22 encompass is $18\frac{3}{4}$ percent, is it not?

23 $6\frac{1}{4}$ percent times 3?

24 A Are you looking for a uniform windrose?

25 Q No.

1 I am just talking about degrees of arc?

2 A Oh.

3 Q I am saying, are not three sectors 18-3/4 percent
4 of 360 degrees?

5 A Whatever $67\frac{1}{2}$ degrees divided by 360 is, that's
6 the answer.

7 Q Well, it would be helpful to clear up if that 18-3/4
8 percent was right.

9 A Have you got a calculator?

10 Q Yes.

11 (Handing calculator to witness)

12 A If I can borrow that, I will.

13 (Pause)

14 18-3/4 percent, sir.

15 Q All right.

16 Now, we've had wind instances ranging from about
17 29 percent up to 36 percent for the three sectors combined;
18 is that not correct?

19 A I think so; yes.

20 Q And, so, we're talking of the order of magnitude
21 of $1\frac{1}{2}$ or 2 times random incidences of exposure of anybody in
22 those three sectors in Charlotte; is that not correct?

23 A That -- the increase over uniform windrose; yes.

24 Q That's right.

25 Well, then we'll stick to the 67 percent residue,

1 can we not say a given person in that 67 percent would be at
2 on the average an appreciably lower than uniform windrose
3 incident to exposure?

4 In other words, if you are higher in one region,
5 if you look at all the rest of the remaining region, you
6 have got the probability of wind direction that way lower
7 than random, or lower than uniform?

8 A Overall, that's true.

9 There will be some sectors within the remainder
10 that have higher than 6.25 percent.

11 Q Right.

12 When you average it all out, it will be lower?

13 A Yes.

14 Q Is inversion data obtained at the Charlotte Airport
15 weather station?

16 A Not that I know of.

17 Q Is it obtained at Greensboro's weather station?

18 A That's what you told me earlier.

19 Q Is it obtained at the Columbia, South Carolina
20 weather station?

21 A That I don't know. I would doubt it.

22 Q Well, subject to check, would you take my assurance
23 that it is?

24 A Okay.

25 Q Now, it would be true to say that you have no

1 familiarity with the Greensboro data?

2 A That's correct.

3 Q And would it be true to say, then, that you are in
4 no position to testify about the incidence of inversion
5 heights observed there over a period of time?

6 A That is generally correct.

7 One can tell by the types of measurements they
8 use something about the inversion heights.

9 For example, if it's a weather service station
10 that uses weather balloons, for example, to get temperature
11 soundings, the first level of measurement they'll get will
12 be several hundred to a thousand feet above the surface.

13 And that makes it rather difficult to detect
14 all the ground-based inversions, surface-based inversions.

15 Q Do you recall, Mr. Soffer, Mr. Read's (phonetic
16 spelling) testimony in the weather part of this case which
17 took place in the safety portion of the hearings?

18 A (Witness Soffer) I am not familiar with it, sir.

19 Q Okay.

20 Perhaps you do, Mr. Fairobent, because you
21 participated in it? Is that not correct?

22 A (Witness Fairobent) I remember certain aspects of
23 the testimony.

24 Q Do you remember the phrase in Mr. Read's testimony
25 running through the 91 sets of weather data for Catawba

1 that some egregiously bad conditions were encountered?

2 A I remember the word "egregiously," yes.

3 Q Now, we've been talking about rainfall and rainout
4 and the effect on the plume.

5 Depending upon the type of rain situations you
6 have, is it not true the edge of the rainfall may move a
7 considerable distance in a period of 2 hours?

8 A Particularly where you have showers, convective
9 type things; they will move considerably in short periods of
10 time.

11 Q Right.

12 And what would you distinguish from the shower
13 system, what language would you use to describe a larger
14 area of rainfall in which you don't have the same convectives
15 as under shower effects?

16 A A typical meteorological term is "stratiform"
17 rain. It's prefrontal --

18 Q Right.

19 A -- and it occurs at about the same intensity over
20 a large area.

21 Q Right.

22 And does the front of that sort of rainfall move?

23 A Yes, generally at a slower rate than the convective
24 storm.

25 Q And what would the rate of movement be, for

1 example, just some representative figure?

2 A Probably 10 to 20 miles an hour for a prefrontal-
3 type storm.

4 Q Right.

5 Now, we have Mr. Soffer's testimony already that
6 for a period of 2 hours in the first release scenario
7 it's postulated there is a steady incidence of release --
8 release rate; do you recall that, Mr. Fairbent?

9 A Yes.

10 Q Does that not mean, then, that insofar as rainfall
11 would be a factor in the deposition of particulates, solubles
12 like the -- like iodine -- funnel through, but there could be
13 considerable movement with respect to the region in which
14 the -- there was deposition over the ground from the plume?

15 I'm not sure I'm making that clear.

16 A No, sir, you're not.

17 Q All right.

18 With a moving rainfall front, if I may call it
19 that, an "edge," as I called it previously, we've already
20 established that it can move appreciably in a period of 2
21 hours.

22 And is it not then reasonable to expect that the
23 presence of a plume which maintains a steady level of
24 release in a period of 2 hours, that depending upon the move-
25 ment of that edge of rainfall, that we could have considerable

1 changes in the region on which there was deposition as a
2 result of this rainfall?

3 A That's correct.

4 Q Now, Mr. Fairbent, you were talking about the
5 dose level for early fatalities; and you pointed out that
6 if you have supportive medical care, the 50 percent level
7 would be at about 500 rems.

8 I beg your pardon, -- Mr. Soffer?

9 Can you be a little bit more precise about that
10 500? Is it 510 or some such number?

11 A (Witness Soffer) The number is not precisely
12 -- the generally-accepted value is 510.

13 I wouldn't want to give it more precision than
14 that, because I don't think any higher level of precision is
15 warranted.

16 Q I think that is a very appropriate observation.
17 Now, with minimal medical attention, what would
18 the 50-percent level be?

19 A Approximately 350.

20 Q All right.

21 Now, if we go to the minimal level rather than the
22 supportive level, what effect would it have on the number of
23 early fatalities vis-a-vis the 19,000 that was discussed
24 earlier?

25 A I don't know precisely what it would have for

1 Catawba, but based on similar discussions and analyses
2 in connection with other areas, other sites, I believe it
3 would be about a factor of, possible, 2 -- in that range.

4 Q All right.

ENDT10
JRB:jrb

5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 Q All right. Referring back to the question of
2 planning, planning beyond the established EPZ of ten miles,
3 it has already been put in the record, on page I-1 of 0396,
4 there is a sentence: Emergency Planning -- I don't know
5 that this has been put in the record -- it is about two-
6 thirds of the way down the page -- Do you have it Mr.
7 Soffer?

8 A Yes.

9 Q There is a sentence: However, emergency planning
10 for non-nuclear hazards is not based upon qualified risk
11 analyses.

12 Is that correct?

13 A That is the sentence that appears in 0396.

14 Q And further: Risk is not generally thought of
15 in terms of probabilities and consequences, rather it is
16 an intuitive feeling of the threat posed to the public.

17 We already had that in the record. Now, another
18 concept that has been introduced in the record is that the
19 present EPZ planning would in effect be an aid to response
20 outside the EPZ area? Is that correct?

21 A Yes.

22 Q Now, if you go to page 14 of 396, we are dealing
23 with some of the physical resources that would be involved
24 in emergency response. We have been talking about ad hoc
25 response now to an emergency. We are dealing with an

1 emergency, an ad hoc emergency response, that would deal with
2 part of Charlotte, and reading now, three-quarters of the
3 way down page 14, the following examples are given to
4 further clarify the task force guidance on EPZs. No
5 special decontamination provisions for the general public,
6 ergo blankets, changes of clothing, food, special showers,
7 no stockpiles of anti-contamination equipment for the general
8 public, no construction of specially equipped fallout
9 shelters, no special radiological medical provisions for
10 the general public, no new construction of special public
11 facilities for emergency use, no special stockpiles of
12 emergency animal feed, no special decontamination equipment
13 for property and equipment, no participation by the general
14 public in test exercises of emergency plans.

15 Is that a correct reading?

16 MR. MCGURREN: This is a whole new line of
17 examination. This was not raised on cross or Board
18 questioning.

19 MR. RIELY: Mr. Chairman, the question is to
20 see what the existence of an emergency planning zone, and
21 its corresponding plan, would do for southwest Charlotte
22 under conditions where southwest Charlotte was at risk.
23 The point is, if I may continue, the point is to show that
24 under the present emergency plan there is nothing that would
25 be materially helpful in dealing with such a problem in

1 southwest Charlotte.

2 MR. CARR: Your Honor, if I could be heard for
3 just a second. I agree with what Mr. McGurren said, and
4 I further point out, -- I just have to make the observation
5 that this is something that Mr. Riley could have covered
6 in his cross examination. The last twenty minutes has
7 essentially been nothing more than additional cross ex .mina-
8 tion he either didn't think of or didn't get to during his
9 allotted time, because it has gone far afield from anything
10 that we asked on cross, or that the Board asked during
11 its questioning, and I think it is time to put a stop to it.

12 JUDGE MARGULIES: The objection is sustained.

13 MR. RILEY: Thank you. That concludes the
14 examination.

15 RE-CROSS EXAMINATION

16 BY MR. GUILD:

17 Q Mr. Robinson, counsel for Applicant asked you
18 to composite the quick release of one hour twenty minute
19 plume passage, if you recall, in the direction of Charlotte
20 where emergency response was to be required in Charlotte,
21 outside the ten mile EPZ. Do you recall that line of
22 questioning?

23 A (Witness Robinson) Yes, sir, I do.

24 Q Do you recall Mr. McGarry suggesting that all
25 that is necessary is an EBS message to say take shelter,

1 and your response was that would be the concept. Do you
2 recall that?

3 A I recall not only did he mention EBS, but he
4 also mentioned using vehicles with PA systems driving in
5 and around the surroundings to identify people. I didn't get t
6 impression from what he was saying that that was all that
7 was necessary.

8 Q My notes say all that is necessary is that an
9 EBS message -- you agree that that is not all that is
10 necessary then. Your position is that there would be
11 additional requirements beyond simply an emergency broadcast
12 system message to take shelter.

13 MR. MCGURREN: I don't think it has been
14 established that any requirement -- if there is a requirement,
15 that maybe counsel could indicate what the requirement is.

16 MR. GUILD: The requirement is that you take
17 effective protective action to protect people from death
18 and early injury from radioactive release from the facility.
19 That requirement does not stop at a magic ten mile line.

20 WITNESS ROBINSON: The regulation, as I understand
21 Mr. Guild, in the scope of my work, involved requirements for
22 those individuals residing within the ten mile -- the
23 established ten mile EPZ. Outside of that ten mile EPZ,
24 as Mr. Riley was just referring to, is something that maybe
25 is taken on an ad hoc basis. There is no requirement

1 regulat'ory wise for notification of those individuals.

2 BY MR. GUILD: (Continuing)

3 Q Lets not split hairs, then. If not a requirement
4 regulatory wise, and I maintain there is, a requirement as
5 a practical matter if you are going to save lives and save
6 health effects, and I think your testimony was agreeing with
7 Mr. McGarry that all is necessary is an EBS message to take
8 shelter in that positive accident. Do you agree with that?

9 A As modified along with the vehicles and the PA
10 system.

11 Q And you found your confidence in the ability to
12 take response outside the ten mile EPZ on the guidance in
13 0396, quoted on pages 4 and 5 of the gentleman's testimony,
14 on page 12 of that document, Item D, detailed planning within
15 ten miles will provide a substantial base for expansion of
16 response efforts in the event that this proved necessary.

17 A That is the basis of the rationale, yes.

18 Q Would you agree with me, sir, that if there were
19 material deficiencies in the planning base within the ten
20 mile EPZ, that those deficiencies would impune the ability
21 to so extend emergency response outside the ten mile EPZ?

22 A Depending upon your definition of what the
23 material deficiency is, I suppose that may be possible.

24 Q All right, sir. I believe-in response to another
25 question from Mr. McGarry, you stated that your view was that

1 FEMA, Federal Emergency Management Agency, had made an
2 evaluation of the effectiveness of existing planning, and
3 in part you relied upon their evaluation in forming your
4 judgment that the EPZ was adequate?

5 A I don't know if that particular characterization
6 is accurate. I believe what I said was that in relying on
7 FEMA to evaluate the offsite considerations, when they
8 provide their interim findings, or their final findings,
9 if they had not brought to the attention of the Staff a
10 problem in the area that is now under consideration, then
11 my assumption is that there is no problem.

12 Q All right, sir. Would you agree with me that
13 your assumption about the effectiveness of the response to
14 an EBS message in Charlotte to take shelter, presumes that
15 people will do as instructed by the EBS Message?

16 MR. MCGURREN: I am going to object. That is
17 definitely beyond the cross and Board questioning.

18 MR. GUILD: Absolutely not. It is a point Mr.
19 McGarry so helpfully raised, and that is the issue of whether
20 or not all that is necessary is an EBS message across the
21 magic line of Charlotte, and I think the witness should
22 respond to the question. I didn't even finish the question,
23 for that matter.

24 JUDGE MARGULIES: Objection is overruled.

25 BY MR. GUILD: (Continuing)

1 Q Do you understand the question?

2 A You didn't get a chance to finish the question.

3 Q The point is this. Your assumption about the
4 EBS message to the people in Charlotte to take shelter
5 assumes that people would respond to a message. For
6 example, a message that said there has been an accident.
7 A plume is coming your way. In effect, you don't have time
8 to get out of the way. You are urged to stay indoors, to
9 take shelter.

10 You are assuming that people would respond as
11 instructed if that were the essence of the message in the
12 EBS, correct?

13 A I know that if I heard such a message, my own
14 actions would be probably to take shelter, but as to what
15 anyone else would do, I can't really say.

16 Q I think most of us in this room, Mr. Robinson,
17 who have had the benefit of pouring over this material for
18 all these many days would probably understand the significance
19 of that instruction, and follow those instructions as well.

20 But my point is, you do presume that people -- the
21 public will follow that instruction in order to have that
22 emergency response be effective.

23 A I think under the hypothetical if I may use that
24 terminology that Mr. McGarry was presenting to me, the idea
25 was that the opportunity was there through the EBS with the

1 vehicles and the PA system for people to have an adequate
2 message provided to them, that if they decided they wanted
3 to take such action as sheltering that they would have
4 proper information and could do so.

5 Q So, you express no judgment as to whether they
6 actually would take such --

7 A I am not an expert in perception or how people
8 react to sociological factors.

9 Q Do you understand that FEMA, nor any other state
10 or local agency, none of them have conducted any effort to
11 gather emperical data about the likely response to alert
12 notification either within the EPZ or out of the EPZ?

13 MR. MCGURREN: Again, Your Honor, I object. It
14 is beyond the scope of cross examination.

15 MR. GUILD: The point simply is the witness relies
16 on FEMA for a number of his conclusions about the adequacy
17 of the existing plans. We have established that the adequacy
18 of planning within the ten mile EPZ is presumed in order
19 to have planning within the EPZ stand as an effective base
20 for the extension of response outside the EPZ, i.e., in
21 Charlotte -- southwest Charlotte -- my question goes to the
22 issue of whether or not FEMA has done its homework, and that
23 is, here have they done a survey to determine that there is
24 an adequate response to alert notification, and I think the
25 record reflects they have not, and I want to understand whether

1 the witness is aware of that in reaching his judgment.

2 JUDGE MARGULIES: We will sustain the objection.

3 MR. GUILD: I ask as a matter of offer of proof
4 that the record reflect that FEMA has not conducted such
5 an opinion survey, although its own guidance, FEMA 43,
6 suggests the appropriateness of that empirical source of
7 information, and the record should reflect whether the witness
8 was aware of that in FEMA's review.

9 JUDGE MARGULIES: Your statement for the record
10 is correct. We have gone into that quite extensively earlier
11 on.

12 MR. GUILD: Thank you.

13 BY MR. GUILD: (Continuing)

14 Q Mr. McGarry asked you a question with respect to
15 the extent of FEMA's review of the adequacy of size and
16 configuration of the EPZ. Do you recall the question? He
17 said they did more than simply the two paragraph response
18 that I read to you from their testimony. Do you remember
19 that?

20 A Again, I think that what Mr. McGarry was getting
21 at is that the review that FEMA does with respect to
22 emergency planning involves a much more detailed approach
23 than just evaluating the size and configuration of the EPZ.

24 Q My point is focused on the EPZ configuration.
25 This is the issue of Charlotte being included in the EPZ.

1 Do you recall Mr. McGarry asking you whether or not they
2 did more of an analysis than is reflected in the two para-
3 graphs I read you from their prefiled testimony. Do you
4 recall your response to the question?

5 A I believe -- refresh my memory.

6 Q I read you from FEMA's prefiled testimony on
7 Contention 11, and there were two very brief points that
8 they made about the subject. Do you recall that?

9 A Yes, sir.

10 JUDGE MARGULIES: Let's get the record straight.
11 There was more prefiled testimony than that single document
12 by FEMA in this proceeding. That was only one --

13 MR. GUILD: That was their only testimony on
14 Contention all, Mr. Chairman. I read the entirety of it.
15 I will be happy to show you the document, if you would like.

16 JUDGE MARGULIES: There was an intermediate
17 report, wasn't there?

18 MR. MCGURREN: There was an intermediate finding.
19 I believe they are part of the record now.

20 MR. GUILD: It is part of the record and I intend
21 to turn to that, but the testimony I read in its entirety,
22 the two paragraphs, do you recall the line of questioning.

23 WITNESS ROBINSON: I believe so, yes, sir.

24 BY MR. GUILD: (Continuing)

25 Q Now, I was going to bring to your attention the

1 FEMA interim findings which have been received in evidence
2 as the Staff's Exhibit 3. Do you have that document available
3 to you?

4 A (Witness Robinson) Yes.

5 Q You might want to check we have the same. Mine
6 is with a cover of April 18, 1984, and the front page is
7 dated April 17, 1984.

8 JUDGE MARGULIES: Can you give us the identification
9 of the document?

10 MR. JOHNSON: It is Staff EP-3.

11 WITNESS ROBINSON: I think I have it.

12 BY MR. GUILD: (Continuing)

13 Q I am looking at page 2, Evaluation Format, and
14 would you agree that it essentially follows the criteria
15 A through P of NUREG 0654? I am looking under Item E there,
16 Evaluation Format?

17 A (Witness Robinson) Yes.

18 Q All right, sir. Now, with that as just a guide,
19 or sort of a -- by way of identification of content, would
20 you direct my attention to this -- within this document, the
21 Interim FEMA Findings, where they perform an evaluation of
22 the adequacy of the size and configuration of the EPZ, either
23 in general, and then with specific regard to the EPZ as it
24 impacts southwest Charlotte?

25 A Using NUREG 0654, if you look at the individual

1 criterion underneath each of the planning standards, each
2 of the existing planning standards, it does not specifically
3 address any requirements, if you will, that FEMA evaluate
4 the size and configuration of the EPZ.

5 Q That is correct. Is there any evaluation in
6 the interim finding? It is in the two paragraphs I read
7 you from the testimony. This is all I am aware of. In
8 addition, it comes from FEMA in this record. I am asking
9 you, in this interim finding, to point -- to indicate to
10 me any evaluation that FEMA has made of the EPZ size and
11 configuration in general, or as it relates to southwest
12 Charlotte?

13 A Well, they have not specifically made reference
14 to it, but as I tried to point out several times earlier,
15 the fact of the matter is in our cooperative effort between
16 the Staff and FEMA, it is sort of a negative consent approach
17 if they do not provide or raise the issue of a deficiency
18 in this area, our presumption is that that area is not
19 deficient.

20

21

22

23

24

25

#12-1-Sue

2 Q All right, sir. Now lastly I think Mr. McGarrv
3 asked you whether or not there was any requirement to
4 consider public input with respect to the adequacy of the
5 determination of the plume EPZ size and configuration.

6 Do you recall that question?

7 A (Witness Robinson) Yes, sir, I do.

8 Q And your statement was that there was no
9 such regulatory requirement.

10 A To my knowledge, there is none.

11 Q Let me ask you this. If the population at risk
12 identifies their need for enhanced planning so that they
13 may respond effectively in the event of an accident at
14 the Catawba facility, and in particular we are talking about
15 the population of southwest Charlotte, how on earth can the
16 effected population, not Mr. Broome, the planning official,
17 or Mr. Glover, the Applicants' planner, but people who have
18 to respond, how can they effectively communicate that need
19 to you, sir, or to the decision-makers within NRC whose
20 job it is to determine whether or not the plume EPZ is
21 adequate?

22 A Well, I'm not an attorney. I have had two years
23 of law school, but I would assume that limited appearances,
24 as occurred last night, is one of the many mechanisms open
25 to this effected population to allow them to raise their
views along these lines.

#12-2-SueT,

1 Q Well, they raised their views. Now, were you
2 present last night?

3 A No, I was not.

4 Q Well, perhaps I suggest to you that you might
5 read the transcript of the limited appearances session.

6 But what I want to really understand, sir, is
7 that as the decision-maker or the reviewer or as the person
8 who is going to decide whether this is acceptable or not
9 acceptable, do you just ignore the desires of the people
10 effected and who presumably can best identify their own
11 needs?

12 Or, if you don't ignore them, how do you factor
13 them into your decision, sir, if at all?

14 A I think, as I tried to point out earlier when
15 you were raising a similar line of questioning, that the
16 particular document -- I don't recall which it was that
17 you were speaking about, a local committee --

18 Q The Charlotte/Mecklenburg Emergency Plan?

19 A That's right. Had passed a resolution with
20 respect to I believe considering the extension of the EPZ,
21 that that is in a precursor form. I believe that these
22 mechanisms are available for these individuals to raise
23 them to the proper channels to which they will eventually
24 get to my level in a form that it is within the scope of my
25 job to consider. And I'm not privy to all of the nuances

#12-3-SueT1

of how it might get to that level. However --

2 Q Have you even looked at the resolution that that
3 planning review committee adopted?

4 A Sir, I have not had the opportunity.

5 Q Let me show it to you. It's in evidence.

6 (Mr. Guild is showing Mr. Robinson a document.)

7 MR. MC GARRY: Your Honor, I'm going to object
8 to this line of questioning. We never raised this parti-
9 cular committee report. We asked the simple question
10 whether or not the NRC considers -- is there a requirement
11 of the NRC to consider public comment. And that was the
12 limited nature of that question.

13 Mr. Guild had asked a question earlier about
14 that report. And I personally chose not to pursue that
15 report.

16 And now he is following up on his initial inquiry.
17 I think it's beyond the scope of my examination.

18 MR. MC GURREN: Your Honor, the Staff joins in
19 the objection. It's clear this is just further cross-
20 examination by Mr. Guild, who is bringing up the same
21 document he raised on cross-examination.

22 JUDGE MARGULIES: I will let you discuss it from
23 the standpoint of procedure but not the merits of the
24 particular resolution.

25 MR. GUILD: All right, sir.

#12-4-SueT

BY MR. GUILD: (Continuing)

2 Q As a matter of procedure then, will you agree
3 with me that on the face of the document I'm showing you,
4 this is Intervenor's Emergency Planning Exhibit 42, there
5 is reflected the attached document, Study Committee for
6 Emergency Management Planning, and charged with the
7 responsibility for evaluating the adequacy of the ten mile
8 EPZ and consideration of the extension of that EPZ into
9 southwest Charlotte?

10 A Could you shorten the background that went along
11 with that to ask the question? I'm sorry, I couldn't quite
12 follow you.

13 Q Yes. Would you agree that the Committee in
14 question was charged with looking at essentially Contention
15 11, whether or not the existing EPZ was adequate, whether
16 it should be extended into southwest Charlotte?

17 MR. MC GURREN: Your Honor, I object. The
18 document is in the record. I can see no purpose for counsel
19 pursuing this type of cross-examination.

20 MR. GUILD: Mr. Chairman, the gentleman seems
21 to be under the misimpression that in some fashion this
22 is a precursor judgment document, what have you. And I
23 mean to demonstrate very simply to him that the Committee,
24 to the contrary, was specifically charged with looking at
25 the merits of what is Contention 11 before this Board and

#12-5-SueT,

1 that they reached a conclusion that found specifically the
2 underlying factual needs and capabilities as a basis for
3 resolving that the EPZ should be extended.

4 And I simply want to point that out to the gentle-
5 man and ask whether or not on that basis he would amend his
6 understanding that it is not a precursor at all but is, in
7 fact, a conclusion and findings by a duly appointed body
8 with the responsibility for looking at the subject matter,
9 and whether or not on that basis he would consider the needs
10 and capabilities of the citizens of Charlotte as warranting
11 the relief for which we seek, and that is the extension of
12 the EPZ.

13 MR. MC GURREN: Your Honor, what Mr. Guild is
14 attempting to do here is to bring into issue the authority
15 of this body.

16 MR. GUILD: That is not all the case, Mr.
17 Chairman. The fact of the matter is, the gentleman hasn't
18 even seen the resolution before. And he is the one who
19 passes on the adequacy of the EPZ for the NRC Staff.

20 I commend it to him, and I think he should be
21 permitted for the record, to answer the question, whether
22 or not they were charged with looking at this issue, whether
23 or not they made findings and conclusions with respect to
24 it.

25 MR. MC GARRY: And the record also reflects the

#12-6-SueT,

1 press release from Dr. Harry Nurkin, who is the Chairman
2 of that Committee, who disputes what Mr. Guild has just
3 presented this morning.

4 MR. GUILD: He doesn't at all. But that --

5 MR. MC GARRY: Yes, he does. I'm not finished.
6 Now we are getting into a dispute of what is the status of
7 this report, and that's not for this tribunal.

8 MR. GUILD: Mr. Chairman --

9 MR. MC GARRY: They have got enough problems with
10 that Committee right now to figure out what they have done,
11 the status of what they have done. We don't need to bring
12 that dirty linen to this Board, Mr. Guild.

13 MR. GUILD: Mr. Chairman, there is no need for
14 Mr. McGarry's ad hominem about whose linen is clean or not
15 clean. The fact of the matter is that the Planning Committee
16 adopted a resolution that speaks for itself. It is in
17 evidence.

18 And the man who is charged with evaluating the
19 adequacy of the EPZ, until now is unaware of its contents.
20 And he seems to mischaracterize it.

21 I ask that he be allowed to respond to the ques-
22 tion which now is pending, and that is does the charge not
23 include evaluating the adequacy of the EPZ, the consideration
24 of the extension of the EPZ for southwest Charlotte.

25 JUDGE MARGULIES: The point is, Mr. Guild, the

#12-7-SueT

1 witness is unfamiliar with the contents. You may examine
2 him on the basis abstractly as to whether if he had obtained
3 such a document what would he do with it, or how it would
4 feed into his process.

5 But we are not interested in the merits of that
6 resolution.

7 MR. GUILD: Well, I'm sorry that you are not,
8 Mr. Chairman. And why we are forced to deal in the abstract
9 with something that is very concrete, particularly for this
10 Committee who spent six months working on it and for pre-
11 sumably the people who are going to be effected by this, I
12 don't know.

13 BY MR. GUILD: (Continuing)

14 Q But let's treat it as an abstract matter, sir.
15 And abstractly, if a Committee was so charged with looking
16 at this issue and reviewed data and heard from the Applicants'
17 expert witnesses, two people, heard from representatives of
18 other interested groups, such as the Intervenor, Carolina
19 Environmental Study Group, studied the matter, reached the
20 conclusion that on the basis of local emergency planning
21 needs and capabilities, the present EPZ was inadequate and
22 recommended that it be extended to the maximum extent pos-
23 sible to include Charlotte, wouldn't you consider that an
24 appropriate factual piece of information to include in your
25 review of the adequacy of the EPZ?

#12-8-SueT,

1 A Before I answer your question, could I ask you
2 for a little clarification?

3 You indicated in your characterization of this
4 document that these people were responding to Contention 11.

5 Q No, sir. They were responding to the charge
6 which I will submit to you is coextensive with Contention 11.
7 That is, one, reviewing the adequacy of the existing EPZ
8 which stops at the border of Charlotte; and, two, consider-
9 ing whether or not the EPZ should be extended into Charlotte,
10 given local emergency planning needs and capabilities.

11 A I'm not sure of your terminology "charge."

12 Q That's why I was trying to show you the document.

13 A Scanning through the document, I did not see any
14 reference to them being charged with analyzing Contention 11.
15 So I guess my problem in answering your question as to
16 hypothetically whether or not I would consider such informa-
17 tion in my review about the adequacy of the EPZ, I see no
18 way unless that document represented the off-site authorities
19 position how I would ever know unless in that situation as
20 you have presented it that this information came to me.

21 So, how could I review it in the first place.

22 Q Well, sir, you are not blind. And I'm standing
23 here and I'm offering the document that reflects the
24 resolution and charge of this Committee, the mission of the
25 Committee, if you will.

#12-9-SueT

A Uh-huh.

2 Q Now, you can't pretend it doesn't exist unless
3 you choose to not treat it as --

4 A Well, Mr. Guild, there could be a committee in
5 California for all I know that had the same charge that
6 they gratuitously took upon themselves. How would I know
7 to review that?

8 Q Well, gentlemen, we can make this abstract if
9 you would like to avoid the point. But I am showing you
10 the document, or I would like to show you the document in
11 the face of the objection from your lawyer and from Applicants'
12 counsel, and I represent to you, sir, as a person who was
13 there, that this is their decision.

14 And I ask you to take that as true, and represent
15 to you that it's true, and given their mission, given their
16 work, given the results of their work, are you going to
17 ignore it? Or, do you have to have someone with diplomatic
18 credentials carry it to your agency and present it before
19 you before you are willing to consider it and factor it into
20 your decision?

21 What has to happen, sir?

22 MR. MC GURREN: Your Honor, I object. I think we
23 are getting back to this actual document rather than the
24 hypothetical situation.

25 MR. GUILD: It's not a hypothetical at all, Mr.

#12-10-Sue1

Chairman. It's a real live decision. And we can ignore it and pretend it doesn't exist. But I think we are entitled to a straight answer from the witness with respect to something that I'm not hypothesizing or making up, that I'm willing to show him. If he has a factual problem with my representations about what the document is, what the Committee's charge was, what the decision was, he should so state.

But I maintain that I'm describing it accurately.

JUDGE MARGULIES: I want to clarify our previous ruling. When I said that we weren't interested in the contents of the document, I did not mean that the Board wasn't interested in the context of the entire proceeding. I was stating that we weren't interested in the contents for the purpose of the question.

And in regard to the latest objection, the counsel for the Intervenors is still inquiring on the basis of a hypothetical, and the question is what would you do with it? Would you do anything with it? Or, would you ignore it?

WITNESS ROBINSON: If it represents the position of the local authorities as to where the EPZ boundary should be set, in the sense that it is part of their plan or documents associated with their plan, then I would review it.

JUDGE MARGULIES: Let me just interject this

#12-11-SueT

one thing. What role does the posture of this case play, in that this matter is now before this Licensing Board?

WITNESS ROBINSON: Mr. Chairman, I'm not sure how to answer that because quite frankly this is the first time that I have been involved with something like this, and I'm not really sure of how information presented at such a proceeding should be factored into the scope of my work.

JUDGE MARGULIES: Okay. I think that should help clarify the situation.

MR. GUILD: It does. I appreciate the question and the response.

BY MR. GUILD: (Continuing)

Q I'm just looking at the text of Contention 11. It is quoted in full I believe at Page 2 of your gentlemen's testimony, and this is the material point that I want to bring to your attention.

This is revised by the Chairman of the previous Licensing Board. "The size and configuration of the northeast quadrant of the plume exposure pathway emergency planning zone (Plume EPZ) surrounding the Catawba facility has not been properly determined by State and local officials..." et cetera.

The thrust of the contention, Mr. Robinson, is that the State and local officials have not adequately done their job. Now, if you only consider what the State and local officials bring to you, so to speak, on a silver platter

#11-12-SueT

1 or as an accomplished fact, then you have created a circular
2 logic that I and my clients can't get out of, and that is
3 unless the local officials change their mind and correct
4 the inadequacy we allege existed in the first place, it's
5 of no moment to you and you won't consider it.

6 Do you understand my dilemma?

7 A I think I do.

8 MR. MC GURREN: I object to the form of the
9 question, Your Honor. It is a statement; it's not a
10 question.

11 MR. GUILD: It is a question, Mr. Chairman.

12 MR. MC GURREN: It's not a question; it's a
13 statement.

14 MR. GUILD: It is a question, and I think if
15 counsel would not interrupt we could rapidly conclude this.

16 The point is, the gentleman has told me that he
17 only will listen to a decision by State and local officials.
18 Now, the contention itself says that the decision that they
19 made so far is wrong. It's inadequate.

20 JUDGE MARGULIES: The contention is an allegation.
21 It isn't a finding of fact.

22 MR. GUILD: That's correct, sir. It's an
23 allegation, one we believe that is substantiated in the
24 record. I don't ask him to take it as a fact.

25 I'm just saying, sir, that is our allegation.

#12-13-SueT

BY MR. GUILD: (Continuing)

2 Q And if that is our allegation and you only rely
3 on a decision by the local officials, there is no way that
4 you could come down otherwise on Contention 11 than you
5 have, and that is so long as it is a decision of local
6 officials it's okay.

7 And you won't consider my views, my client's
8 views, the evidence of record or the decision of the
9 Emergency Planning Review Committee?

10 JUDGE MARGULIES: Mr. Guild, I think you are
11 going into Commission procedures. And it may very well be --
12 I would have to defer to Staff, but this whole process at
13 this point may well be beyond Mr. Robinson's duties and
14 obligations as a member of the Staff.

15 MR. GUILD: Could I just ask --

16 JUDGE MARGULIES: Yes.

17 MR. GUILD: Thank you.

18 The last point only is really what I'm concerned
19 about, and that is the pending question really is if he only
20 listens to State and local officials, and that's what I
21 understood his answer to be, then how could he otherwise --
22 how could he express an opinion other than what he has?

23 How could he factor in any other information?

24 MR. MC GURREN: First, Your Honor, I think he
25 has mischaracterized the testimony. I think he also states

#12-14-SueT

1 that aside from listening to State and local officials that
2 he also listens to FEMA.

3 MR. GUILD: That's fine. We will take it that
4 way.

5 BY MR. GUILD: (Continuing)

6 Q Do you understand my dilemma? And please help
7 me to understand just what your role is and as you see it,
8 sir.

9 A Well, your line of questioning, I think, has
10 gone outside of what my particular role is as part of the
11 Staff.

12 But, as Mr. Mc Gurren pointed out, and I think
13 consistent to listening to, if you will, as characterized
14 by Contention 11, the State and local officials, I defer
15 to FEMA in this area and the fact, as we earlier pointed
16 out in our colloquy with each other, that the interim report,
17 in a negative consent manner, did not raise the issue. FEMA
18 certainly had as much an opportunity as anyone else that
19 you have suggested to factor this kind of information into
20 their thinking about off-site preparedness.

21 And though I do not know that they did in fact
22 review this document or --

23 Q Which document?

24 A The Committee's decision that you were showing me
25 just a moment ago, I can only presume from their findings

#12-15-SueT

2 that there is no deficiency in this area that we are dis-
cussing.

3 Q Just a brief point of information. The Committee's
4 decision postdates FEMA's testimony, and this decision was
5 as of Wednesday, the 16th of May. And their testimony was
6 prepared and given prior to that date.

7 So you are the only one really who has a chance
8 to respond to this. FEMA has not seen it.

9 Does that alter your view about the significance
10 of this or FEMA's, if you will, negative --

11 A Within the scope of my work, as I answered
12 Question 31, the Staff has found that the Applicants'
13 determination of the current EPZ boundary in the northeast
14 quadrant to comply with 10 CFR 50.47 (c) (2), I have not
15 formally had any further information, as I pointed out
16 in that same answer, submitted to me for review.

17 Q All right, sir. Well, I commend this to you,
18 and this is Intervenor's EP 42.

19 A Uh-huh.

20 MR. GUILD: That concludes my examination. But
21 I would like to give you a copy of this, and I would hope
22 that you would look at it and read it and take it into
23 account.

24 (Mr. Robinson shrugged.)

25 Thank you.

#12-16-SueT

JUDGE MARGULIES: Mr. Johnson.

2 MR. MC GURREN: Your Honor, we do have one
3 question that follows to Mr. Guild's question about public
4 input, and I will direct this question to Mr. Robinson.

REDIRECT EXAMINATION

BY MR. MC GURREN:

INDEXXX 7 Q Are you aware of any FEMA regulation or require-
8 ment wherein the public meeting is held giving FEMA the
9 opportunity to have a public opinion, public input to FEMA
10 with regard to evaluation of emergency plans?

11 A It's my understanding that at the full scale
12 exercise time, which is one of the three phases involved
13 in licensing a power plant, that in fact the public does
14 have an opportunity to present such views in a public
15 meeting that occurs after the full scale exercise.

MR. MC GURREN: That's all we have.

17 JUDGE MARGULIES: Do you have anything further
18 on that?

19 MR. GUILD: I will just add -- it doesn't need
20 to be a question, I will just ask if the record will reflect
21 the exercise was February the 15th and 16, 1984. It well
22 predated the decision by the Committee on May 16th.

23 MR. RILEY: And the public hearing was held
24 in Clover, South Carolina.

25 JUDGE MARGULIES: You say there was a public --

#12-17-SueT

2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

MR. RILEY: There was a public review of the FEMA exercise report in Clover, South Carolina.

JUDGE MARGULIES: Thank you. That concludes the panel's presentation on Contention 11. The panel is excused. Thank you.

(The panel of witnesses stood aside.)

Let's take a ten minute recess.

(Whereupon, the hearing is recessed at 2:42 p.m., to reconvene at 2:52 p.m., this same day.)

end #13

Jim flws

JRB:jrb

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

JUDGE MARGULIES: Back on the record.

We have the matter of the remainder of the schedule in this proceeding.

As the proceeding stands, we are scheduled to commence a session on June 5th, in Rock Hill.

Over the noon recess I have been able to determine that the District Court in Rock Hill will be available. So our next session will be in Rock Hill.

The matters to be taken up on that June 5th session include Contention 8, which we had scheduled for the first day of that session, June 5th; and we allowed the remainder of the week for subpoenaed witnesses.

We now have before us the matter of the request for subpoenas.

The initial request was filed April 16th, 1984, and received by us on April 19th, 1984.

The supplemental, or, as described, the renewed application for subpoenas, was submitted on May 16th, and received by us on May 21st.

The two documents differ in that the first document requested the issuance of 75 subpoenas duces tecum; the most recent document requests the subpoena of 20 individuals, along with documents; whereas the first document did not contain a specific statement of the general relevance, the second document contains that information.

1 It is noted that five of the parties sought to be
2 subpoenaed in the second document were not part of the
3 original group subpoenaed in the first document.

4 So, 15 of the individuals remain the same; there
5 are 5 newly-named individuals.

6 From a procedural standpoint, could you tell us,
7 Mr. Guild, as to what your intention is in presenting these
8 witnesses?

9 MR. GUILD: I had anticipated, Mr. Chairman, that
10 they would be presented for the balance of that week, and
11 I presume -- I don't have a calendar in front of me -- I
12 believe the 5th is a Wednesday, is it not? A Tuesday.

13 Then it would be the --

14 JUDGE MARGULIES: It would be the 6th through the
15 9th.

16 MR. GUILD: The 6th through the 8th? -- the 8th
17 being a Friday?

18 JUDGE MARGULIES: Oh, I'm sorry; I'm on the wrong
19 one.

20 MR. GUILD: And --

21 JUDGE MARGULIES: 6th through the 8th; that's
22 correct.

23 MR. GUILD: -- if we -- well, I had intended to
24 group them on the basis of the subject matter of their
25 proposed testimony. And that really has to do with the

1 contentions for which their testimony is sought.

2 With the primary caveat being their convenience,
3 availability, and the needs of the Board, I -- for a starting
4 point it would make sense to group their testimony either in
5 panels or sequentially on common subjects, and most
6 appropriately, contention-by-contention.

7 I envision, though, that the convenience and
8 scheduling of the witnesses, themselves, may be more of a
9 controlling factor; so I am somewhat hesitant to be too
10 fixed in the plan of going forward on a contention-by-
11 contention basis.

12 A number of the witnesses can be groups around
13 the contention which we will be taking up on the 5th,
14 and that is the coordination contention. And it may be
15 appropriate to, instead of going sequentially going through
16 by the numbers of contentions, to follow Contention 8's
17 principal testimony on the 5th, with whatever testimony
18 is of opinion witnesses on Contention 8, perhaps on the 6th.

19 That really is as much as I am able at this time
20 to suggest for an order of process of taking testimony.

21 JUDGE MARGULIES: It would appear to the Board
22 that the nature of the testimony would be in the nature of
23 rebuttal testimony.

24 MR. GUILD: Well, sir, I guess technically our view
25 is that they are -- they are in support of our direct case.

1 We note that the Applicants present some 58
2 witnesses, witnesses common to a number of contentions; but,
3 if you add the witnesses by contention, it's a total of 58.

4 Our witnesses who are within our control, so to
5 speak, whose testimony we were able to prefile, number six --
6 few in number, by comparison.

7 Since many of these persons are persons who have
8 responsibilities for implementation of the plan, they can
9 be seen essentially as adverse witnesses, only because
10 Applicants and the NRC Staff take the point of view that
11 the plans are adequate, and implementation adequate.

12 Therefore, they are not persons who are likely
13 to appear as volunteers.

14 We do view them as part of our case-in-chief,
15 and not by way of rebuttal testimony.

16 JUDGE MARGULIES: Well, the Board's observation
17 is that at no time were they designated for the Board as
18 witnesses to be heard as Intervenors' direct case.

19 Prefiled testimony was to be received by May 16th.
20 Intervenors did file such prefiled testimony for --

21 MR. GUILD: April 16th?

22 JUDGE MARGULIES: April 16th -- on a number of
23 contentions, three contentions, in fact.

24 Even if hostile witnesses, no notice was given to
25 the Board or to the parties that these people were to be

1 called as part of your direct case.

2 MR. GUILD: Mr. Chairman, if I may, the reason they
3 are indicated by way of application on the 16th of April
4 was just to provide such notice.

5 I was operating under the -- following the custom,
6 if you will, that was followed in the previous safety phase
7 of the case, where, perhaps, because we have prehearing
8 conferences and discussed these matters in some detail in
9 that phase, it was understood that Intervenors offered
10 limited prefiled testimony of persons who were under their
11 control; and in that phase it was two witnesses.

12 And then we submitted an application for
13 subpoenas primarily for Applicants' witnesses who were
14 construction-related employees involved on the Catawba
15 project.

16 That application was submitted on the same day as
17 our -- no, it was submitted prior to the beginning of the
18 hearing.

19 I don't think there was any indication formally
20 in a document that they were witnesses for Intervenors'
21 case-in-chief; but that's the way they were treated, as hostile,
22 in some regard; and that's the way these witnesses were
23 intended.

24 That's why we submitted the application on the
25 16th of April.

1 I think that that was obviously the fair under-
2 standing of the parties, as well, from their anticipation of
3 previous phases of the case.

4 I'm not sure -- it may be a distinction without
5 difference, Mr. Chairman; I don't know. But our view is that
6 they would be witnesses for our case-in-chief.

7 JUDGE MARGULIES: Do the other parties wish to
8 be heard on this matter?

9 Applicants?

10 MR. MC GARRY: Yes, sir.

11 It is Applicants' view that all parties had an
12 obligation on the 16th of April to present testimony. We have
13 no trouble with the fact that Palmetto Alliance sought to
14 present such testimony in part through subpoenaed witnesses.

15 However, we don't think just simply saying
16 "here's a list of subpoenaed witnesses" satisfies the rule
17 or requirement that prefiled testimony should be in our hands.

18 We should have some indication of what these
19 individuals are going to say, so that we can prepare in the
20 10 days between receipt of the prefiled testimony and the
21 hearing; and that is the point of why prefiled testimony is,
22 indeed, filed.

23 We weren't given that opportunity.

24 And, quite frankly, we still don't know much more
25 than we did on April the 16th.

1 JUDGE MARGULIES: Staff?

2 MR. MC GURREN: Your Honor, Staff feels the same
3 way.

4 We feel that this comes late; the testimony was
5 due on April 16th. We did not receive this list until -- I
6 think the document was filed late.

7 Our position is, it does come late, and that does
8 not comply with requirement for prefiled testimony.

9 MR. GUILD: Mr. Chairman, there's no way that
10 I am capable, nor even the parties, to submit this applica-
11 tion -- to be capable of presenting prefiled testimony for
12 witnesses who are not under our control.

13 And that is the case with the identified witnesses.

14 They are person's with knowledge, we believe, but
15 persons of whom we are not capable -- I don't represent any
16 of these people; many of them are state and local officials
17 who, presumably, were chosen by Applicants among state and
18 local officials that support the adequacy of the plan who
19 would have been Applicants' witnesses.

20 We certainly could not present their testimony
21 prefiled.

22 JUDGE MARGULIES: I think it is reasonable that
23 you couldn't present their testimony prefiled, per se, on
24 that date. Some of them are -- you would consider as hostile.
25 I see some of the new ones that you are seeking subpoenas

1 for may or may not be hostile.

2 But you could have advised the Board and the
3 parties as to the contentions you expected to present these
4 witnesses to testify to, and what you expected their testi-
5 mony to be.

6 MR. GUILD: Again, Mr. Chairman, that raises
7 the point that we believe we will rely on, and that was the
8 technical adequacy of the initial application and stating
9 the general relevance of their testimony.

10 We are under no other specific guidance or
11 order of this Board. We tried to comply with that order since
12 it was made known to us, and that's the point of the renewed
13 application, to set forth general relevance of each
14 witness' testimony, including the contention to which their
15 testimony should be addressed.

16 But the 10 CFR 2720, which provides for the issuance
17 of subpoenas, we maintain, gives us access as a matter of
18 ministerial right to seek the issuance of compulsory process
19 on a general showing of relevance.

20 We think we've done that. We think that we can't
21 prefile testimony for these people. The basis of the deficiency
22 the Chairman perceives in our original application, we tried
23 to remedy that.

24 I don't know what more we could do.

25 MR. MC GARRY: Your Honor, one observation:

1 Many of the witnesses that we called were not
2 Duke's witnesses; they were state witnesses -- or county
3 witnesses; coming from the same jurisdictions of the witnesses
4 that are contained on the Intervenors' subpoena notice.

5 We talked to those witnesses. We presented
6 prefiled testimony. Mr. Pugh (phonetic spelling) made it
7 abundantly clear that he was not a Duke witness; he was an
8 independent witness. He wasn't a hostile witness to either
9 party. He was here to explain precisely what he'd done.

10 So I submit with the state and local witnesses,
11 there is no hostile witness overtone to be associated with
12 those witnesses. They are independent.

13 MR. GUILD: We think the position of the parties
14 speaks for themselves:

15 The Applicants' counsel submitted prefiled
16 testimony; they asked them the questions; they conducted the
17 examination; they defended them on cross-examination; you
18 can't come up with any other reasonable reading of their
19 position in this litigation than that they defend the
20 adequacy of their own plans.

21 We assert, with all respect to Mr. Pugh, that
22 he takes the position that Duke's plan and the State's plan
23 for the Catawba facility are adequate. We disagree.

24 JUDGE MARGULIES: As a preliminary matter, we'd
25 like to deal with the requested subpoenas for Richard W.

1 Riley, the Governor of South Carolina, and James B. Hunt,
2 the Governor of North Carolina.

3 We find no sound reasons to subpoena the
4 Governors of both States.

5 Such high-ranking officers should not be called
6 upon personally to give testimony unless there is a clear
7 showing that such testimony is essential to prevent prejudice
8 or injustice to a party who would require that testimony.

9 Such high-ranking officials should not be required
10 to respond unless the testimony was unavailable from lesser-
11 ranking officers within their States.

12 We are not satisfied it is essential to present
13 prejudice or injustice or that lesser-ranking officials are
14 not available from the States of North and South Carolina
15 and cannot give such testimony.

16 On that basis, we deny your requests for
17 subpoenas of the two Governors.

18 In regard to the request for the subpoenas --

19 MR. GUILD: Mr. Chairman, before you go on, may
20 I respond?

21 JUDGE MARGULIES: Yes.

22 MR. GUILD: Contention 8, the contention to which
23 the Governors' testimony is principally sought, has yet to be
24 litigated.

25 We submit that Applicants have chosen those

1 officials who have most capably demonstrated support for
2 their proposition that there is effective coordination among
3 the States, including the Governors who are charged with
4 responsibilities under the plan.

5 We intend to demonstrate to the contrary. And
6 we would simply at this point ask the -- or note that we
7 intend to base our subpoenas for the testimony of the
8 governors on the inadequacy of the support for Contention 8
9 reflected in the testimony prefiled by Applicants and the
10 NRC Staff.

11 And that we intend to renew the request to
12 subpoena the Governors of the two States who are charged under
13 State law with supervising the emergency response and
14 declaring mandatory evacuation of persons affected by accidents
15 at the Catawba facility, at the point where lesser officials
16 called by Applicants and the NRC Staff -- or, Applicants,
17 rather -- have taken the stand.

18 I just wanted the parties to be aware of that,
19 and to bring it to the Chairman's attention, that it is our
20 view that we have an obligation to note our desire to call
21 the Governors at the time we identified our witnesses -- and
22 that was April 16th -- and we did so.

23 But we want it understood that when Contention 8
24 is tried, and Applicants offer the testimony of lesser
25 officials as to the adequacy of coordination, we intend to

1 review our request for the Governors.

2 We do believe them to be indispensable witnesses;
3 we do believe that prejudice to our ability to litigate
4 Contention 8 is manifest at this point, but will be demon-
5 strated further on the basis of the record.

6 JUDGE MARGULIES: The fact that they have the
7 ultimate responsibility does not mean that they have the
8 sole knowledge as to what the requirements are and how the
9 office operates and functions.

10 And to that end we will approve your request to
11 subpoena Frank A. Sanders, who is the Director of Public
12 Safety Programs in the Office of the Governor of South
13 Carolina; and Mr. Pugh, from North Carolina, who is respon-
14 sible for emergency planning and will testify in conjunction
15 with the panel on Contention 8; and will be available here.

16 END13JRB

17

18

19

20

21

22

23

24

25

1 MR. CARR: Your Honor, I just want to make one
2 observation, and that goes to just a correction of Mr.
3 Guild's statement. I don't think he meant that the
4 Applicant selected witnesses from the State and County
5 organizations.

6 We had no say in the matter. We just got the
7 responsible people that did the work, and I assisted them
8 in preparing testimony. There was no picking and choosing
9 among a plethora of individuals.

10 MR. GUILD: I could argue that Mr. Saunders has
11 responsibilities under the plan, and he wasn't selected,
12 so obviously there was some electivity. We view the
13 Governors as essential persons, but they choose the Governors
14 either, and we think that they are material witnesses.

15 I didn't mean -- there were others who had knowledge
16 and would more favorably support our position if called.

17 JUDGE MARGULIES: Setting aside the matter for
18 whether we treat the remaining witnesses sort to be subpoenaed
19 as rebuttal witnesses or witnesss to be used in the direct
20 case, how would you propose to set up a time schedule in
21 their examination in terms of putting on their testimony
22 and the time for cross examination, such as we have done with
23 the other parties in this case.

24 Is it something that we ought to take a short
25 recess now and give you an opportunity to look at it.

1 MR. GUILD: I would certainly welcome the
2 opportunity to try to reach an agreement among the parties
3 on how to do it. It would be helpful to know what the
4 universe of witnesses I have available would be.

5 Just for example, we made a very strong effort
6 to eliminate all peripheral witnesses on this list. That
7 is how we have gotten from a group of -- after eliminating
8 the witnesses who are already being called by Applicant's
9 from our list of 75, we got down to 20. By getting down to
10 those essential people who could support our position.

11 You ruled out two of those, and you now have
12 18, and we stated that we intend to call them as panels,
13 so I think 18 witnesses grouped in panels would not take
14 an inordinate amount of time.

15 If I knew what authority I was going to have in
16 terms of being able to call these witnesses, it would be
17 helpful and I could maybe suggest a brief recess and we
18 could try to arrange an agreed schedule, subject to the
19 witnesses availability. I would intend to contact these
20 witnesses if I have the subpoena authority, and find out
21 what their schedules are, given the Board's direction.

22 JUDGE MARGULIES: In terms of the request that
23 they be issued subpoenas duces tecum, we don't think you have
24 made that showing.

25 We think it would be appropriate that the subpoenas

1 ad testificandum be issued rather than subpoenaes duces
2 tecum, and that you speak in terms of them to bring the
3 documents which reflect their knowledge. It just surpluses
4 if they already have the knowledge. Requirements to bring the
5 supporting documents would add nothing.

6 MR. GUILD: Let's take for example Items 12 and
7 13. Mr. Morgan Churoff, a Duke employee most knowledgeable
8 on the subject of surveys conducted with respect to public
9 information and education. Now, that testimony may be
10 useful, but the primary evidentiary significance is that they
11 present a document that is a -- we have had very partial
12 tabular result from, and that is the document that is
13 at offer of proof in the record, the results of the survey.
14 I would seek specifically, for example, from Mr. Churnoff
15 of the Duke person most knowledgeable, the survey itself,
16 which would include any methodological description
17 survey instrument, as well as the tabular results in full.
18 That would be the documentary evidence that would be
19 principally involved.

20 Their explanation or interpretation of that
21 survey and description of methodologies would certainly be
22 useful, but that is the sense in which the request for
23 production of documentary evidence in subpoena duces
24 tecum is sought, particularly for those two individuals.

25 JUDGE MARGULIES: Aside from those two witnesses,

1 is that your position? I mean, is that necessary for those
2 two witnesses?

3 MR. GUILD: Yes, sir. I think that the request
4 for subpoena was largely anticipatory in an effort to try
5 to protect our position if there was a question of the
6 sponsorship or authenticity of documentary evidence.
7 Largely documentary evidence produced in discovery.

8 The record should reflect we haven't had that
9 difficulty. Applicants have not objected to the introduction
10 of copies of original documents, and so largely the need for
11 bringing in original documents seem to obviated.

12 I would like an opportunity over a break, perhaps
13 the same break that we attempt to organize the order of
14 witnesses, to review briefly the list and see if there are
15 any other specific ones.

16 Those two principally come to mind in terms of
17 documents that are not available as of now in which we would
18 seek the subpoena duces tecum.

19 JUDGE MARGULIES: Again without ruling on the
20 nature of the testimony as to whether it is to be direct
21 or rebuttal, the Board is predisposed to granting subpoenas
22 ad testificandum to the remaining eighteen witnesses. When

23 I say the remaining eighteen witnesses, other than the
24 two governors.

25 So, what we will do is take a recess at this time

1 and see if you can work out a scheuling --

2 MR. McGARRY: We are not going to be heard on
3 this matter of subpoenaes?

4 MR. JOHNSON: The Staff also thinks before the
5 Board rules we ought to be able to discuss the showing.

6 MR. GUILD : The rule provides for the
7 application, and not for responsive pleading. It gives
8 an opportunity for witnesses who are represented by either
9 of these counsel, or the parties to appear by way of a
10 Motion to Quash, and argue whatever privilege or objections
11 there are to their appearance, but we don't believe it is
12 for Applicants to interfere or impose themselves between
13 us and the ability to have compulsory process issued by
14 the Commission.

15 I think that is the spirit of the Federal rules,
16 and the rules of this Agency, and we would object to
17 Applicants or the NRC Staff being permitted to, as parties of
18 interest, in opposing our offer of evidence, interfere with
19 this prerogative of having subpoenaes issued.

20 MR. CARR: Your Honor, let me make a couple of
21 observations, if I might. We are now finishing the twelfth
22 day of this hearing. These subpoenaes -- initial request
23 for subpoena, an adequate request, was made on April 16th.
24 We have another four days scheduled two weeks from now.

25 I can tell you now that it is our intention to

1 Move to Quash seventeen of the eighteen remaining requests
2 for subpoenas.

3 It is also our intention -- let's take the
4 Churnoff and Duke Power Company employee duces tecum.
5 There was ample opportunity in discovery to seek to press
6 for documents of this nature, and they choose not to do so.

7 MR. GUILD: We did, Mr. Chairman.

8 MR. CARR: There was ample opportunity during
9 discovery to seek to identify his Duke Power Company
10 employee.

11 Now, these people primarily are state and govern-
12 ment officials. We have made tremendous demands -- in this
13 proceeding made tremendous demands on the time and the work
14 effort of those individuals over the past six weeks. If
15 this request had been timely and properly made, we would not
16 be in this situation here today.

17 JUDGE MARGULIES: Getting back to the matters
18 as to whether Applicant and the Staff should be heard, it
19 is our belief that the Regulations do not require it, but
20 as a matter of courtesy we will permit you to be heard.

21 MR. McGARRY: We appreciate that, Your Honor.
22 We hope the Board recognizes that if we were not afforded
23 this opportunity, the prospect of seventeen counsel or
24 eighteen counsel appearing before this Board to Move to
25 Quash is a very real prospect, but we do appreciate the

1 opportunity because we do think we have the right to
2 comment.

3 We are involved as an interested party in this
4 proceeding at standing. We believe that many of these
5 subpoenaed witnesses will give cumulative or irrelevant
6 testimony.

7 It is our responsibility as an officer of this
8 Board to assure that cumulative and irrelevant testimony
9 is not accumulated in the record, which we believe it will
10 be.

11 For example, the red cross individual from York
12 County to testify about the adequacy of shelters in York
13 County, there are no shelters in York County, so why is she
14 being called? That is a for example. We believe that
15 to call these witnesses has the prospect of delaying this
16 proceeding, and that is of vital concern to this party.

17 So, we think we do have an opportunity and a
18 right to be heard with respect to each and every one of the
19 subpoenaed witnesses. Another example is Mr. Luther
20 Fincher. Mr. Fincher works with Mr. Wayne Broome. Mr. Wayne
21 Broome has been at this hearing every single day. He is
22 sitting in this courtroom today, and have Mr. Fincher to
23 appear here to give the same testimony that Mr. Broome has
24 given is ridiculous. And we should be able to bring these
25 points to this Board, to make them known to the Board, and

1 we submit given that opportunity, the Board will hopefully
2 reconsider its decision and limit the scope of this
3 request.

4 JUDGE MARGULIES: Staff?

5 MR. MCGULLEN: Your Honor, first I would like
6 to make the point that we believe that the five recent
7 additions to this list, that is Jerry Williams, Linda Smith,
8 Betty Long, Brenda Best, and Nat Davis, Jr., are late.

9 We also feel that with regard to the remaining,
10 that there has been an inadequate showing of relevancy. We
11 feel that certainly the application for subpoenas merely
12 gives a list of conclusions and doesn't address what testimony
13 is intended to be elicited from these witnesses.

14 We furthermore agree with the Applicant, that con-
15 sistent with 2.743, it is this Board's obligation to make
16 sure that we don't have cumulative testimony, and that
17 is exactly what we believe can happen with this kind of
18 testimony.

19 MR. GUILD: Mr. Chairman, may I be heard in
20 response?

21 JUDGE MARGULIES: Yes.

22 MR. GUILD: It is very convenient for parties
23 who are attempting to defend the adequacy of emergency plans
24 and their ability to implement it effectively protect persons
25 exposed to an accident at Catawba, to state that only the

1 witnesses they have chosen to put forward and offer relevant
2 and non-cumulative testimony.

3 It sounds wonderful. One has to ask the question
4 why did shelters -- why were shelters designated in York and
5 Lancaster County that were manifestly inadequate as alleged
6 in our Contention. And determined to be so only by review
7 of a Linda Smith, who was identified in the course of exam-
8 ination of witnesses in this proceeding as the red cross
9 official who went and looked at the shelters.

10 Why is it that Mr. Luther Fincher, who is the
11 Acting Director of the Emergency Management Office in Mecklen-
12 burg County is not offered as a witness in this proceeding,
13 and instead Mr. Broome, who has been with us all this time,
14 who is the administrative officer of that office, offered
15 as a witness.

16 We believe that perhaps Mr. Fincher's testimony
17 could be more useful in supporting the Intervener's case
18 as to the inadequacy of emergency response in Mecklenburg
19 County and for the City of Charlotte. More particularly,
20 Mr. Fincher was directly involved as a senior officer in
21 charge of response to the infamous Baxter Harris chemical
22 fire, which is offered by many witnesses for Applicant as
23 the example of how the All Hazards plan works in practice.
24 We believe he has particular and specific knowledge.

25 Those are the two for instances that were used

1 by Mr. McGarry as the example of cumulative testimony.

2 We learned of the name -- we designated the
3 Chairman of the York County Council in the previous request
4 for subpoena. Mr. J. Jerry Williams is identified as that
5 person, and we list him by name now instead of by title.
6 We identified him earlier on.

7 In the previous portion of this proceeding, it
8 was well acknowledged that simply because the Applicants
9 chose to demonstrate effective quality assurance in the
10 construction of Catawba by picking management personnel who
11 predictably present glowing testimony about how well the
12 plant was built, didn't answer the question of whether or
13 not quality assurance procedures had, in fact, been followed
14 and the plant was, in fact, safely built.

15 For that reason, it was manifest that Interveners
16 would have the opportunity, through discovery, having
17 identified witnesses witnesses with knowledge, as the
18 discovery rules suggest is appropriate, that Interveners
19 could designate persons with specific knowledge and seek
20 their subpoena, and we did it. And we had witnesses -- I
21 submit it was thirty or more in number -- who were welding
22 inspectors, who were quality control officials at Catawba,
23 who were allowed to testify pursuant to subpoenas issued
24 to Interveners in support of our case.

25 Now, by analogy we maintain that it is absolutely

1 critical and essential for Interveners who want to
2 demonstrate, and hopefully seek improvements in emergency
3 planning for Catawba, that through the designated twenty
4 individuals, now 18 that we have left, of our choosing with
5 particular knowledge, that such deficiencies exist, and
6 we maintain that it is just not enough for NRC and Duke to
7 tell us: Oh, we are going to try to save you time; or, oh,
8 the testimony is going to be cumulative, what their response
9 should really be understood to mean that they are concerned
10 about the damage that may be done to their case through the
11 testimony of witnesses that they haven't chosen.

12 Now, we maintain that it should be our prerogative,
13 as it is the prerogative of a party duly admitted to a
14 proceeding, to be able to invoke the compulsory process of
15 the Nuclear Regulatory Commission, regardless of whether the
16 Commission likes the position that we advocate. Regardless
17 of whether the NRC disputes our allegations as to the
18 inadequacy of emergency planning at Catawba.

19 I, as counsel for party in a Federal court
20 proceeding would have unquestioned right to go before the
21 Clerk of the U. S. District Court to have subpoenas issued
22 in blank that I then could serve on witnesses of my choosing,
23 subject to those persons, through their counsel, coming
24 forward and arguing that on the basis of privilege or some
25 relevance concern, that their testimony of production of

1 evidence should not be permitted.

2 Now, that is the process that should be followed.
3 That is the process we are entitled to, and we submit that
4 we have done everything conceivable to try to narrow the
5 scope of our request for subpoenas to the bare minimum
6 of persons we believe can adequately support our case,
7 with all due regard to how many days we have been here.
8 I would just as soon leave today and not come back as much
9 as anyone else here, and two more days of testimony beyond
10 the 5th does please me any more than I am sure it pleases
11 the Chairman and members of the Board or other parties.

12 But the fact of the matter is it is protection
13 of my client's interest, and the interest of the other
14 Intervener absolutely requires that we have access to
15 these persons.

16 JUDGE MARGULIES: Are we agreed that the case
17 will conclude by the end of the week of the 4th?

18 MR. GUILD: Yes, sir. That is certainly
19 consistent with my expectation, and as part of reaching a
20 reasonable agreement about the order of presenting witnesses
21 it is my anticipation that we would take the two days --
22 the 6th, 7th, and 8th -- the three days remaining in that
23 week after the scheduled fifth, and apportion it in such
24 a fashion to so conclude it.

25 MR. MCGURREN: Your Honor, it may be that

1 some of these people may not be able to meet the schedule.
2 It is very possible that someone could be on vacation. I
3 think it should be understood that there may be a problem.

4 JUDGE MARGULIES: Why don't the parties work
5 it out?

6 MR. McGARRY: How can we work it out. They
7 are not our witnesses?

8 MR. GUILD: That is exactly the point. That
9 is why it is inappropriate for Mr. McGarry to have control
10 over who I can call as a witnesses.

11 Now, I can try to work out the scheduleing of
12 when these people will be called, but I consider it my
13 responsibility as counsel, having the authority of the
14 Commission's subpoena power available to me, to try to
15 obtain their presence at the time when they are available
16 subject to the direction of the Chairman, and I intend to
17 do so, but I don't consider it Mr. McGarry's prerogative
18 to decide when or if I have a right to call a person as a
19 witness to support my case.

20 MR. McGARRY: Your Honor I would like to be
21 heard. Significant allegations have been made by the
22 Interveners, and that is if you step back and look at
23 what is going on, we have a document on the 16th of April.
24 That document was simply a list of names, very little else
25 that this Board so found.

1 Yet, we all had responsibilities to provide
2 testimony. We submit that these individuals, the Interveners
3 could just have easily contacted these individuals and
4 provided testimony. They didn't.

5 Now, what do they want to do? They want to bring
6 in Mr. Fircher because he might have some information that
7 Ray Broome doesn't have. They don't know, so what are they
8 doing? They are conducting discovery. You are permitting
9 them, through the granting of these subpoenas to conduct
10 discovery. They don't know what the red cross representative
11 from York County will tell this Board.

12 They want an opportunity to put that person on
13 the stand and ask her questions of why the shelters were
14 not approved. They could have talked to her just like went
15 to talk to Dennis Johnson. He is not an employee of Duke
16 Power Company. He is a member of the American Red Cross.

17 They could have talked to that individual if
18 they thought there was an important point. They could have
19 presented testimony on the 16th and they didn't. This
20 Board is permitting them to simply flaunt the rules, provide
21 a list, bring these people in. It may only take two or
22 three days, and we are conducting discovery, and we don't
23 think that is appropriate.

24 MR. GUILD: Mr. Chairman, you know, this is
25 exactly the problem that arises by allowing Mr. McGarry

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

to wave his arms about, to rant and rave, to try to suggest
the merits of what these witnesses will testify.

#15-1-Sue¹

2 That is why 2720 says explicitly that it is
3 not the point at this juncture for the Chair to make the
4 decision about the admissibility of the evidence. The
5 showing is one only of general relevance, which is a
6 discretionary showing. We have made that showing now that
7 we have been required to do so.

8 And it is just an outrage that this gentleman
9 can sit here and try to suggest that there is anything in-
10 appropriate about counsel for a party such as I seeking
11 subpoena authority from a Federal tribunal such as this.
12 It's absolutely outrageous that Mr. McGarry is sitting here
13 saying that. And I suggest that it's inappropriate as an
14 officer of the court for him to be misstating practice and
15 law and procedure as he is.

16 The fact of the matter is if we were in a federal
17 lawsuit, I would have had weeks ago the seventy-five subpoenas
18 in my hands that I sought originally, and it would be up to
19 those parties to be asked to be excused subject to a motion
20 to quash. That is my right as a citizen of the United
21 States; that is my right as a duly admitted party to this
22 proceeding.

23 And you can hear Mr. McGarry exercise all you
24 want about what he fears might be shown by these witnesses
25 who he does not want to testify. The fact of the matter is,
we are entitled to the subpoena authority that we seek.

#15-2-SueT

And nothing else needs to be said, Mr. Chairman.

(The Board members are conferring.)

JUDGE MARGULIES: Are the parties stating they are unwilling to attempt to work out a schedule?

MR. GUILD: I'm willing to discuss it with anybody, Mr. Chairman, about the timing. I don't know from Mr. McGarry's or Mr. McGurren's response that it suggests a willingness to discuss the matter at all.

MR. MC GURREN: Your Honor, the Staff would certainly be willing to sit down. I'm not sure we understand exactly who the people are? Have you ruled that all but the two --

JUDGE MARGULIES: Governors.

MR. GUILD: Mr. Chairman, let me add one other point, it would help a little bit. Mr. Austin, Number 14 on this list, is sought with respect to the telephone notification. Now, preserving our right to address the point which has to do with the striking of portions of Mr. Riley's testimony on that subject, I would note that that is the subject of the proposed testimony, consistent with your ruling that Mr. Austin's testimony presumably would not be allowed and it would be simply an exercise and a technicality to issue a subpoena for Mr. Austin and have him excluded. So, I don't intend to seek Mr. Austin's testimony, preserving our exception to your ruling excluding

#15-3-Sue,

that subject from Mr. Riley's testimony.

2 MR. MC GARRY: Your Honor, we are not unwilling
3 but I don't think there is anything we really can do. I
4 think it is just a matter of Intervenor organizing the list
5 and contacting the people and however Your Honor perceives
6 that that is their judgment. We don't know the schedules
7 of these people.

8 JUDGE MARGULIES: We actually did not rule on it.
9 We said we were disposed to ruling in that matter, but we
10 made no ruling.

11 MR. MC GARRY: Your Honor, since you haven't
12 there is just one last point. I don't want to make a big
13 point of it, but we did get the document as we were coming
14 down here and we did not have a great deal of time to prepare
15 for it. Leaving that aside, the last point we have is we
16 would like the Board to keep in mind this is their direct
17 case, as Mr. Guild said. And we don't want to belabor this
18 case; we don't want to delay it.

19 But look what happens to us. We aren't given any
20 prefiled testimony. We are hearing the testimony for the
21 first time when it comes on the stand. And we are supposed
22 to use our dexterity then to prepare cross-examination. We
23 have no idea of what these people are going to say.

24 Yet, we don't want to delay the proceeding. We
25 are not suggesting that. But we are suggesting there is

#15-4-Sue,

1 some unfairness here. That's why we have a right to make
2 these objections to these subpoenas because it does have
3 the prospect of delaying the procedure.

4 MR. GUILD: Mr. Chairman, that is just outrageous.
5 A subpoenaed witness does not have prefiled testimony. Many
6 of these persons are persons that presumably seek to support
7 Applicants' case.

8 In the previous part of this proceeding, a sub-
9 poenaed witness was in large measure then voluntarily
10 offered by Applicants and prefiled testimony was prepared
11 by them. Now, that just reflects the fact that those wit-
12 nesses in the prior proceeding, who were largely Duke
13 employees, were under their control, and having lost their
14 objections to having the subpoenas issued in the first
15 place, their opposition was advanced with just as much
16 zeal as it is right now and they lost.

17 They then came back and offered prefiled testi-
18 mony for these people. But if Mr. McGarry is correct --
19 and dispute it, Mr. McGarry, if I'm not representing accurately
20 how the previous phase of this proceeding went -- you know
21 that's accurate.

22 MR. MC GARRY: Quite frankly, I didn't hear you.
23 I was thinking of something else. I can't dispute it one
24 way or the other. I'm sorry.

25 MR. GUILD: The fact of the matter is, though,

#15-5-SueT

1 that we run as much risk as any party when we designate a
2 witness -- let's take Mr. Sanders, for example, who is a
3 fine man. Mr. Sanders would not appear for Palmetto Alliance
4 as a witness in this proceeding. By his official responsi-
5 bilities, he is charged with defending the adequacy of the
6 existing state of preparedness for this facility. He is
7 in charge. Now, presumably Applicants know Mr. Sanders,
8 have talked to him, have a cooperative relationship with
9 him. They are identified by interest much more closely with
10 Mr. Sanders than I am.

11 How can they sincerely argue that they are pre-
12 judiced by not knowing what Mr. Sanders' testimony is? When
13 just by his position it should be presumed that he will
14 respond to defend the existing state of preparedness.

15 We, Palmetto Alliance and CESG, take much greater
16 risk by calling such a person. The same can be said of Mr.
17 Odom, who was Chairman of the Mecklenburg Board of Commis-
18 sioners. He defends the state of preparedness, I'm sure.
19 On down the list.

20 So the fact of the matter is, such a suggestion
21 it is just patently unbelievable that Applicants could say
22 that their prejudice is any greater than that of Intervenors.
23 We seek it because it's the only source of evidence that
24 we have to present our case.

25 JUDGE MARGULIES: We will take a twenty minute

15-6-SueT 1

recess.

2

(Whereupon, the hearing is recessed at 3:39 p.m.,

3

to reconvene at 3:50 p.m., this same date.)

4

JUDGE MARGULIES: The Board is ready to rule.

5

We believe that the time has expired for the Intervenors

6

to attempt to put in a direct case at this late stage.

7

Orderly regulation of the proceedings, in fairness to the

8

parties, requires that we do not permit the start of a

9

new direct case at this late hour.

10

As mentioned in our preliminary disuccsion, we

11

believe it appropriate that the Intervenors be permitted

12

to develop their -- whatever case they wish to solely on

13

rebuttal. To that extent, we will permit the subpoenaing

14

of these seventeen indicated witnesses into the proceeding

15

solely for the purpose of presenting testimony on rebuttal.

16

The witnesses will be solely for testimony and

17

not extend to the bringing of supportive documents. The

18

subpoenaes will be by way of subpoenaes ad testificandum.

19

It is expected that the Intervenor will put on

20

their case within Wednesday, Thursday and Friday of that

21

week, and it is expected that the case will be concluded

22

during that period. Should any witness be unavailable, it

23

is a problem that Intervenors will have to accept. The

24

case will conclude on that Friday.

25

MR. GUILD: Mr. Chairman, how about with respect

#15-7-Sue 1

2 to Items 12 and 13 , and that is the specific request that
3 Mr. Chernoff, a Duke employee, knowledgable in public
4 information surveys, be required to produce those survey
documents?

5 JUDGE MARGULIES: The ruling has been that all
6 the subpoenas will be subpoenas ad testificandum.

7 Are there any other questions?

8 MR. GUILD: We make a specific motion that Mr.
9 Chernoff, a Duke employee, with the knowledge of the
10 public information surveys be required to produce the survey
11 document itself so that such a document could be offered in
12 evidence with respect to support for Intervenors' position
13 on emergency planning Contention 1, that is the public
14 information contention.

15 JUDGE MARGULIES: Do the parties wish to be
16 heard?

17 MR. MC GARRY: Yes, Your Honor. We oppose that.
18 It appears to us that is clearly for discovery. These are
19 now rebuttal witnesses. What's the individual rebutting?

20 We are caught off guard really in our ability to
21 respond but those are our reactions.

22 MR. GUILD: Mr. Chairman, the document was ex-
23 cluded from evidence on the basis that there was no sponsor-
24 ing witness, and there was an offer of proof that summary
25 results of surveys conducted by Applicants with Mr. Chernoff's

#15-8-SaeT

1 name associated with them. We have previously sought a
2 subpoena for Mr. Chernoff, including the production of
3 documents relevant to his knowledge of that subject. That
4 request was refused.

5 We did seek in discovery public information
6 survey material. The summary tables were all that was
7 provided. We made an express request to counsel to provide
8 the survey instruments and the details behind the survey.
9 That request was refused.

10 It is inaccurate to say that we didn't seek it
11 in discovery. We did seek it in discovery, and it was
12 refused.

13 Now we seek it by way of compulsory process, the
14 only other way open to us. And we urge that my motion to
15 produce Order of this Board be issued directing Applicants
16 and/or Mr. Chernoff to produce those documents so that they
17 may be entered in evidence. It's the only way we have to
18 offer evidence on that point.

19 And, Mr. Chairman, the record should reflect
20 that FEMA, whose own guidance suggests to perform such
21 survey, has not fulfilled their obligation. The Board
22 has rejected the survey testimony of Mr. Rutledge, although
23 we believe it is relevant. And now we are being circumscribed
24 to the point where the only evidence that Applicants have
25 in their position that we believe will offer material support

#15-9-SueT,

1 for our position on Contention 1, that is the Duke Public
2 Relations Program is designed to lull people into a false
3 sense of security and not prepare them adequately for an
4 emergency response, will be unavailable to us.

5 MR. MC GARRY: Your Honor, we do have one more
6 point. And that is, these are rebuttal witnesses. The
7 scope of their examination is limited to our direct. We
8 never mentioned that survey in our direct case.

9 The Intervenors raised it in cross-examination
10 and wished to make it part of their direct case. But it
11 was not part of our direct case. And, therefore, that sur-
12 vey has no place in this proceeding.

13 We oppose that.

14 MR. GUILD: We, of course, object to the narrow-
15 ness of the scope, unavailability of these witnesses in
16 support of our direct case. That position has been argued,
17 and you ruled against us.

18 Assuming these witnesses, the scope of the
19 testimony is limited by way of rebuttal, we are rebutting
20 Applicants' testimony that the public information program
21 is adequate. We are rebutting Applicants' testimony that
22 the brochure adequately informs people in the EPZ of how
23 they are to be alerted and what their response is to be,
24 specifically that the summary of result that was made an
25 offer of proof indicated the results of sampling people in

#15-10-SueT

2 the EPZ on the specific question of: One, whether they had
3 received the brochure, and many said they hadn't; and, two,
4 whether they were informed adequately about emergency plan-
5 ning.

6 We submit that the only way that that evidence
7 can be sponsored is through a witness who comes forward,
8 and that the witness should be required to bring with him
9 the document which relevance is obvious. It's merely a
10 technicality that we are unable to sponsor that evidence.

11 It is clearly appropriate rebuttal evidence even
12 to the limited case that Applicants put on to demonstrate
13 the adequacy of the public information program.

14 (The Board members are conferring.)

15 JUDGE MARGULIES: We will deny the motion,
16 counsel.

17 Are there any other questions or matters to be
18 taken up?

19 (No reply.)

20 I will execute the subpoenas, Mr. Guild, to be
21 made returnable June 5th and you can be in contact with the
22 witnesses and indicate to them when you need them specifically.

23 MR. GUILD: All right, Mr. Chairman.

24 JUDGE MARGULIES: I should say June 6th, in that
25 the 5th will be taken up with Contention 8.

MR. GUILD: Yes, sir.

#15-11-Sue¹T

JUDGE MARGULIES: There being nothing further,
this session is closed.

MR. MC GARRY: Thank you, Your Honor.

(Whereupon, the hearing is adjourned at
4 o'clock p.m., this same day, to reconvene on
June 5, 1984.)

* * * * *

END

2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

CERTIFICATE OF PROCEEDINGS

This is to certify that the attached proceedings before the
NRC COMMISSION

In the matter of: DUKE POWER CO.

Date of Proceedings: May 25, 1984

Place of Proceedings: Charlotte, North Carolina

were held as herein appears, and that this is the original
transcript for the file of the Commission.

James Burns

Official Reporter - typed

James Burns - signed

Myrtle Traylor

Official Reporter - typed

Myrtle Traylor - signed

Garrett Walsh

Official Reporter - typed

Garrett J. Walsh - signed