

ORIGINAL

UNITED STATES
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

In the Matter of:)	
)	
EVIDENTIARY HEARING)	
)	
PUBLIC SERVICE COMPANY OF)	
)	
NEW HAMPSHIRE, et al)	DOCKET: 50-443-OL
(SEABROOK STATION, UNITS 1 AND 2))	50-444-OL
)	OFFSITE EMERGENCY
)	PLANNING
)	
)	

Pages: 10168 through 10391

Place: Concord, New Hampshire

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1 UNITED STATES NUCLEAR REGULATORY COMMISSION
2 ATOMIC SAFETY AND LICENSING BOARD

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3 In the Matter of:)
4 PUBLIC SERVICE COMPANY OF) Docket Nos.
5 NEW HAMPSHIRE, et al.,) 50-443-OL
6 (SEABROOK STATION, UNITS 1 AND 2)) 50-444-OL
7) OFF-SITE EMERGENCY
8) PLANNING
9 EVIDENTIARY HEARING

10 Tuesday,
11 May 3, 1988

12 Room 210
Legislative Office Building
Concord, New Hampshire

13 The above-entitled matter came on for hearing,
14 pursuant to notice, at 9:02 a.m.

15 BEFORE: JUDGE IVAN W. SMITH, CHAIRMAN
16 Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

17 JUDGE GUSTAVE A. LINENBERGER, JR., MEMBER
18 Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

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20 (No Appearances)

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I N D E X

2 WITNESSES

DIRECT CROSS REDIRECT RECROSS EXAM

3 Panel:

4 JOHN W. BAER
4 DONALD W. BELL
4 JOHN D. BONDS
5 ANTHONY M. CALLENDRELLO
5 PAUL R. FRECHETTE, JR.
6 JAMES A. MACDONALD
6 RICHARD H. STROME
7 WILLIAM T. WALLACE, JR.
7 by Ms. Sneider

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I N D E X

2
3 INSERTS:PAGE4 COMMONWEALTH OF MASSACHUSETTS:5 The State of New Hampshire's Responses
6 to Attorney General James M. Shannon's
6 Offsite EP Interrogatories and Request
7 For the Production of Documents,
7 Interrogatory No. Nine and Response

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1 PROCEEDINGS

2 (9:02 a.m.)

3 JUDGE SMITH: Good morning.

4 Is there any preliminary business?

5 Ms. Sneider?

6 MS. SNEIDER: Good morning.

7 Whereupon,

8 JOHN BAER

9 DONALD BELL

10 ANTHONY M. CALLENDRELLO

11 PAUL R. FRECHETTE

12 JOHN D. BONDS

13 JAMES A. MACDONALD

14 RICHARD H. STROME

15 WILLIAM T. WALLACE

16 having been previously duly sworn, resumed the witness stand,

17 and was examined and further testified as follows:

18 RESUME CROSS-EXAMINATION

19 BY MS. SNEIDER:

20 Q Dr. Wallace, yesterday we were discussing provisions
21 in the New Hampshire plan for sheltering. Based on that
22 discussion of what's in the plan now for sheltering of the
23 summer beach population, would you agree that the plan contains
24 no planned response to shelter the seasonal beach populations?

25 A (Wallace) No, I wouldn't agree to that.

1 MR. DIGNAN: Your Honor, we're having great
2 difficulty hearing in the back.

3 JUDGE SMITH: Would you care to read it again or,
4 just read it back please.

5 BY MS. SNEIDER:

6 Q Would you agree --

7 JUDGE SMITH: Read it back, please.

8 (Whereupon, the Reporter played back the last
9 question.)

10 BY MS. SNEIDER:

11 Q Dr. Wallace, could you indicate to me provisions in
12 the plan that support your answer that there is a planned
13 response to shelter the seasonal beach population?

14 A (Wallace) I believe some of what we discussed
15 yesterday was about EBS messages that made reference to actions
16 that people should take. In our testimony we had indicated
17 that shelter would be recommended for those transient beach
18 population individuals who were without means of
19 transportation, at least as a temporary provision. And we had
20 some discussion as to, you know, the way they would be directed
21 to go to public buildings, and discussed the public buildings
22 yesterday, so I think those are at least some of the instances
23 that we have where shelter is dealt with.

24 And while the basic principle that I think we're
25 stating is that evacuation is certainly the preferred means of

1 any protection, shelter in the plan is not precluded, and
2 they're obvious specific provisions for dealing with shelter.

3 Q The provisions in the plan that you just mentioned to
4 me all deal with the transit-dependent beach population; is
5 that right?

6 A (Wallace) Not entirely; that's one of the groups
7 that we have dealt with here. But the other aspect of the plan
8 that's really throughout in terms of the shelter-in-place, and
9 the section that you were reading to me yesterday clearly
10 indicated that when shelter is the recommended protective
11 action, for whatever reason, people shelter-in-place wherever
12 they are and that part that you read to me.

13 So that's, once again, where the plan does provide
14 for shelter as a protective action.

15 Q Didn't you agree yesterday that the definition of
16 sheltering advised people on the beach area to leave the area?

17 A (Wallace) That's one of the EBS messages that we
18 went over yesterday; yes.

19 Q And you also agreed with me yesterday that the
20 definition of sheltering in the plan advised people located
21 outdoors or without access to suitable shelter to leave the
22 area immediately?

23 A (Wallace) Yes, that's true.

24 Q So, are there any provisions in the plan you can
25 point out to me that deal with sheltering of the summer beach

1 population except for the transit-dependent beach population?

2 JUDGE SMITH: I think -- do you understand that
3 question all right? That would be plans other than plans of
4 sheltering the transportation-dependent, beach population, or
5 plans for sheltering everybody except the beach dependent or
6 the beach -- the transportation-dependent beach population? I
7 see a difference.

8 MS. SNEIDER: Well, I'm asking -- I understand
9 there's some provisions in the plan for sheltering the
10 transportation-dependent population. I'm asking if he can
11 point out to me plans for sheltering any of the other people on
12 the beaches.

13 THE WITNESS: (Wallace) I'm sorry, I don't think I'm
14 still quite sure what you're asking. Maybe you can repeat it
15 one more time.

16 BY MS. SNEIDER:

17 Q Okay. Can you show me any place in the plan that
18 provides for sheltering or indicates planning for sheltering
19 the summer beach population except for -- I understand that
20 there are some plans for the transit-dependent, so I'm looking
21 for sheltering beyond the transit-dependent population?

22 A (Wallace) Can I have a brief conference.

23 (Witnesses conferring)

24 THE WITNESS: (Wallace) The sections that we've
25 talked about some before, 2.6-7, does lay out provisions for

1 when you would make the recommendation for sheltering as a
2 protective action and not just the transportation-dependent
3 transient population.

4 So, again the provisions are in there to do that.
5 There is not a detailed explanation of exactly just where
6 people would be directed, and that kind of thing, but the
7 provisions are there.

8 Once again, the preferred mode and most acceptable
9 mode of protection in the instances is evacuation.

10 BY MS. SNEIDER:

11 Q So as I understand it, there's a plan to recommend
12 shelter in some instances, but as you tell me, there's no
13 indication where people would shelter?

14 A (Wallace) Conference.

15 (Witnesses conferring)

16 THE WITNESS: (Wallace) I guess we need to go back
17 again to the statement about the shelter-in-place concept and
18 that's built into the plan and the recommendations that are
19 given to people to shelter-in-place and that's clearly a
20 shelter provision.

21 BY MS. SNEIDER:

22 Q Just going back to the shelter-in-place concept, you
23 would agree that people located outdoors are advised to leave
24 the area?

25 MR. BISBEE: Objection, Your Honor, under what

1 circumstances does that question apply to any possible
2 scenario, and that could be more effective to focus it in on a
3 particular scenario.

4 MS. SNEIDER: I'm reading back from the definition of
5 sheltering that we agreed on yesterday that's in the plan that
6 says, those at home are to shelter at home, those at work or
7 school are to shelter in the work place or school building,
8 transients located indoors or in private homes will be asked to
9 shelter at the location they are visiting, if this is feasible.
10 Transients without access to an indoor location will be advised
11 to evacuate as quickly as possible in their own vehicles.

12 And we also agreed yesterday that transients without
13 access to suitable shelters will be advised to evacuate as
14 quickly as possible in their own vehicles.

15 THE WITNESS: (Wallace) So your question is?

16 BY MS. SNEIDER:

17 Q Do you still agree that that's the definition of
18 sheltering as used in the plan?

19 A (Wallace) That's the definition.

20 Q Would you agree that under that definition the beach
21 population located outdoors would be advised to leave the area
22 as quickly as possible?

23 A (Wallace) Brief conference.

24 (Witnesses conferring)

25 THE WITNESS: (Wallace) If it's acceptable or

1 agreeable, would you -- Mr. Bonds can speak to this.

2 THE WITNESS: (Bonds) On page 19 of the testimony we
3 laid out the conditions under which it's conceivable that
4 sheltering of the beach population would be considered.
5 There's three points that are there, one of them is the
6 transportation-dependent transients. Putting that one aside
7 and dealing with the other two, if the recommendation is to be
8 to shelter and you have a summertime beach population, the
9 recommendation will be for that population as well. It would
10 not be a recommendation for one segment of the community and a
11 contradictory recommendation for another segment of the
12 community. The recommendation would be the same for all
13 individuals located within that area at that time.

14 Now, at the top of page 19 I believe is a quote that
15 you're coming back to: "Transients without access to indoor
16 location will be advised to evacuate." We would consider this,
17 that is, the decision if it's to recommend the shelter for the
18 entire area to include the beach population, it follows an
19 exception outside of that definition, we would not feel
20 constrained by that sentence in coming up with a recommendation
21 to protect the entire population, if the best recommendation is
22 to shelter.

23 BY MS. SNEIDER:

24 Q I understand that sheltering may in some
25 circumstances be recommended to the entire transient beach

1 population. My questions have been directed more to whether
2 there's any planned response, plans in place to implement the
3 sheltering response once it's recommended?

4 A (Bonds) There are -- the shelter-in-place concept is
5 delineated; we've gone over that. In terms of having a
6 specific sentence or paragraph or section that says, this is
7 what we would do with a beach population in a sheltering
8 situation, no, you will not find a specific section in there
9 that relates to that.

10 But my understanding is that there is no requirement
11 that that be done. John Baer can address the requirements upon
12 which the plan is based better than I though.

13 Q I'm not asking for the requirements. I'm asking to
14 show me what's in the plan?

15 A (Callendrello) I think it's pretty well laid out in
16 our testimony. On page 20 we talk about the mechanisms that
17 are now in place or to be put in place for recommending shelter
18 to the public whether on the beach or any place else.

19 The first mechanism is the rapid assessment of
20 accident conditions. That's the existing protective action
21 recommendation procedure which allows you to reach a
22 recommendation for sheltering of the beach population.

23 The other mechanism is the public alert system. It's
24 an existing mechanism to provide initial alert and notification
25 to the public.

1 And finally, the emergency broadcast system, and
2 that's the method for delivering the public information message
3 to instruct whatever population is affected to take a
4 protective action. In this case it would be the beach
5 population to take protective action of sheltering.

6 A (Strome) Let me just direct you to a page, if I
7 could. Direct you to appendix 2, page 4 of 47. Appendix 1,
8 I'm sorry. And I'll read you the paragraph, if I could,
9 counselor. Page 4 of 47, and it's addressing the shelter-in-
10 place concept, and it says: "Implicit in adopting this
11 position are three key factors. First, the state wanted a
12 sheltering concept that was uncomplicated and manageable. The
13 shelter-in-place concept meets this criterion.

14 Second, the state wanted a sheltering concept that it
15 could rely upon to be implemented quickly. And the shelter-in-
16 place concept meets this criterion.

17 A shelter-in-concept that requires the movement of
18 people to a remote shelter location may not. However, the
19 states feels that if a release of radiation warranted movement
20 of the public, they are much more likely to be afforded
21 meaningful dose reductions by moving out of the EPZ than by
22 moving to a shelter within the EPZ. This is the case since the
23 members of the public would be in effect evacuating to a
24 shelter.

25 This action would require forming family groups,

1 social units prior to moving. Deciding whether to seek shelter
2 or evacuate spontaneously, choosing a motor transportation,
3 i.e., walk or ride, seeking a destination, i.e., home shelter,
4 and undertaking the physical movement."

5 So what we're saying there is that we look for the
6 simplest possible concept in planning that we could possibly
7 put in place to implement shelter. We did not want a very
8 complicated and lengthy procedure to implement protective
9 action that is relatively simple on its face.

10 Does that answer your question, counsel?

11 Q Well, that brings up another question. The way I
12 read this paragraph that you just read it seems to be saying,
13 acknowledging that there would be certain difficulties inherent
14 in sheltering the beach population because they would be in
15 effect evacuating to a shelter. And I wanted to know if you
16 can point to me any provisions in the plan which deal with
17 getting the beach population into shelter or indicate where the
18 beach population would shelter?

19 A (Strome) There are no provisions in the planning
20 document, so far as I'm aware, that point out specific
21 locations; that's true. But I think I pointed out to you,
22 counselor, that the process is what we're interested in. There
23 is the planning provision within the documents to implement
24 sheltering. Those generic sheltering provisions apply to
25 everyone. And that's certainly within the planning documents.

1 Q The generic sheltering provisions that say, shelter
2 at the building where you are?

3 A (Strome) Essentially.

4 Q I'd like to turn --

5 JUDGE SMITH: May I inquire, to wrap up this point or
6 at least for me, would you list the various protective actions
7 which might be implemented with respect to a person physically
8 on the beach at the time of the decision to take a protective
9 action, we'd say a general alert? Just what various things
10 might that person be told to do?

11 THE WITNESS: (Callendrello) There is a range of
12 actions that can be taken. Starting at the alert level, a
13 person on the beach may be told that the beach is closed, to
14 leave the beach. At the site area emergency level, depending
15 on whether the plant is in a degraded mode or not or continuing
16 to degrade, the person will either be told the beaches are
17 closed, leave the beach or to evacuate the beach.

18 And at the general emergency there is really one of
19 three possibilities. A person may be told to evacuate the
20 beach. If you are transient without transportation you will be
21 told to seek shelter while you're waiting for transportation or
22 in the conditions that are outlined on page 19 there's a
23 possibility that sheltering could be recommended for a person
24 on the beach, if it provided the greatest dose savings or
25 because of local conditions evacuation was impossible.

1 BY MS. SNEIDER:

2 Q I'd like to turn now to the decisionmaking criteria
3 for recommending shelter. The decision criteria of the New
4 Hampshire plan contained in Appendix U of Volume 4-A and of
5 Appendix F of Volume 4, I believe; is that accurate?

6 A (Callendrello) Yes, it is.

7 Q And those two appendices are identical; are they not?

8 A (Callendrello) Yes, they are.

9 Q And part 4 of the appendices is entitled, "Protective
10 Action Decisionmaking for Seasonal Beach Population;" is that
11 right?

12 A (Callendrello) Yes.

13 Q And these appendices have just recently been amended,
14 I believe?

15 A (Callendrello) Yes.

16 Q Just for clarity and understanding the changes that
17 have just been made I'd like to ask you first a question or two
18 about the decision criteria for the seasonal beach population
19 as they were prior to this recent amendment.

20 The criteria originally provided that for a general
21 emergency not matter what the condition, persons in the
22 Seabrook and Hampton Beach area would be advised to evacuate;
23 is that accurate?

24 A (Callendrello) I don't have the previous version in
25 front of me. It would be helpful if you've got a copy. I've

1 got one.

2 MR. BISBEE: Could I inquire of counsel, do you have
3 Rev. 2 dated August '86. And then we have an Appendix F which
4 is attached to the testimony that was offered yesterday. And
5 then there's an amendment to the plan. Which version here are
6 we --

7 MS. SNEIDER: It's my understanding that the
8 attachment to the testimony contains the same decision criteria
9 as the new amendment to the plan.

10 MR. BISBEE: And the one we're dealing with now is
11 the one for August of '86?

12 MS. SNEIDER: That's correct.

13 MR. BISBEE: Thank you.

14 THE WITNESS: (Callendrello) I've got that.

15 BY MS. SNEIDER:

16 Q Okay. Can you respond to the question?

17 A (Callendrello) As I recall the question it was, the
18 previous protective action recommendation procedure indicated
19 for general emergency to recommend evacuation of the general
20 public from all beach areas; and that is correct, that is what
21 it stated. And it's all beach areas in the Hampton souther
22 area and Seabrook.

23 Q Okay. And the people on the beach areas would be
24 advised to evacuate under that decision criteria even when the
25 decisionmaking process resulted in a recommendation or would

1 result in a recommendation to shelter persons in other parts of
2 Hampton and Seabrook; is that accurate?

3 A (Callendrello) Yes, that's accurate. That's the way
4 the procedure is written.

5 Q Now, the recent amendment has changed those
6 provisions somewhat. I'd like to go through some of those
7 changes. For one thing, according to the new decision
8 criteria, there's been added the possibility that in a general
9 emergency predetermined protective action recommendations may
10 be provided by the utility based on emergency classification
11 level of plant status; is that accurate?

12 A (Callendrello) Yes. That provision has always
13 existed in the onsite plan and procedures. The modification to
14 the New Hampshire plan is a recognition that that exists.

15 (Continued on next page.)

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T15 1 Q Could you repeat your response?

2 A (Callendrello) The provision for protective action
3 recommendations based on plant status has always existed in the
4 Seabrook Station on-site planning procedures. What has been
5 added to the New Hampshire plan, and you see as a note, is a
6 recognition that the utility will make that recommendation
7 based on plant conditions.

8 Q The utility's recommendation would be made in
9 accordance with Attachment A to Appendix F or U; is that
10 correct?

11 A (Callendrello) That is correct.

12 Q Okay, I believe Attachment A is Figure 3 at Page 32
13 of Attachment 1 to the testimony; is that right?

14 A (Callendrello) Attachment A includes three figures,
15 and they are three figures out of the on-site emergency
16 response procedures.

17 If it's helpful, it's Pages 28 through 32.

18 Q Figure 3 on Page 32, is it correct that that
19 describes the process that the utility will go through to reach
20 a recommendation?

21 A (Callendrello) Yes.

22 Q And is it correct that that describes the basis for
23 the utility's recommendations?

24 A (Callendrello) Yes, for the recommendations that are
25 made based on plant status, plant conditions.

1 Q Okay, and according to that figure, in all cases in
2 which the utility issues a recommendation, that recommendation
3 will automatically be to evacuate the Hampton and Seabrook
4 beach areas; is that correct?

5 A (Callendrello) Could you just repeat that? I want
6 to make sure I have that question right.

7 Q According to that figure, in all cases in which the
8 utility issues a recommendation, that recommendation will
9 automatically be to evacuate the Hampton and Seabrook beach
10 areas; is that correct?

11 A (Callendrello) No, I don't believe that's correct.
12 And the reason I have answered that way is that there are two
13 conditions, two general conditions that are covered by this
14 figure.

15 One is where the -- you will see what's indicated as
16 a post LOCA monitor where those readings are greater than some
17 threshold values which will drive you into automatic protective
18 actions.

19 There are also -- there's a line of that tree that if
20 the post LOCA monitor is less than a certain threshold value,
21 will drive you into the dose assessment phase of protective
22 action recommendation, and there may be some other result other
23 than evacuation that comes out of that assessment.

24 Q Is that the projected dose assessment mode?

25 A (Callendrello) Yes, that's dose projection; yes.

1 Q And would that responsibility be turned over to the
2 state to make protective action recommendations based on dose
3 projections?

4 A (Callendrello) The state will be doing that
5 independently of the utility. The utility will be doing dose
6 assessment. The state will be doing dose assessment. There is
7 a dose assessment group that's colocated with the utility at
8 its emergency operations facility. There is also a parallel
9 effort that goes on the state emergency operations center.

10 Q But the only recommendations that would be automatic
11 would be the ones, if you flow along the yes flow of the chart,
12 and those predetermined protective action recommendations would
13 in all case here be to evacuate the Seabrook and Hampton beach
14 areas; is that accurate?

15 A (Callendrello) Yes, based on plant conditions;
16 obviously summertime situation. Yes, it would be to evacuate
17 Hampton and Seabrook beach areas.

18 Q Okay. Turning to you now, Dr. Wallace.

19 If the utility does not issue a protective action
20 recommendation in a general emergency, the State of New
21 Hampshire would consider sheltering the beach populations in
22 Hampton and Seabrook based on the same criteria it would use
23 for the general population; is that correct?

24 A (Wallace) If you -- say that again, please?

25 Q Perhaps I can help you out --

1 A (Wallace) Yes.

2 Q -- by turning to your own decisionmaking chart.

3 I'm looking at Attachment 1, Page 7, which is the
4 protection action decision criteria for a general emergency.

5 A (Wallace) Attachment 1, Page 7 of 35 with an F-8 on
6 the bottom, Line 4?

7 Q That's correct.

8 And my question to you is if the utility does not issue a
9 protective action recommendation in a general emergency, the
10 State of New Hampshire would then consider sheltering the beach
11 populations in Hampton and Seabrook based on the same criteria
12 it would use for the general population; is that correct?

13 A (Wallace) I think the answer is yes on that. Our
14 decisionmaking process, I think as indicated, we have accident
15 assessors that are involved in assessing the accident, and
16 these folks are colocated within the utility folks at their
17 operating center in Newington. And the utility does make
18 recommendations, and then we follow them or not on the basis of
19 our own calculations and our own assessment, and what's going
20 on locally and, you know, all of our other -- the elements that
21 go into our decisionmaking process.

22 The utility might make no recommendations for shelter
23 or evacuation, but we might feel it's appropriate to make some
24 recommendations. We might feel it's appropriate to make some
25

1 recommendations for precautionary, particularly in the
2 precautionary line; in other words, no release, but just, you
3 know, to be absolutely sure we may make some recommendations to
4 have people leave the beaches even if the utility has not made
5 their recommendation.

6 They may make some recommendations that we don't feel
7 are, you know, the best from our perspective, and so we might
8 not take them. In other words, we work together and share
9 information, and are involved in the accident assessment
10 process together, but theirs are recommendations. The
11 decisions are made, the accident assessment people transmit the
12 information and the recommendations to us at the emergency
13 operating center here in Concord, and we discuss it, the
14 emergency management director, the public health director, and
15 the Governor, and make our decision as to what recommendations
16 to go forward with.

17 So, we're not bound by their recommendations, the
18 utility, and we may make different recommendations, depending
19 upon the situation.

20 Q Okay. Specifically looking at general emergencies,
21 and I'm referring to Page F-8. It says at B-2 on that page
22 that the state is to determine protective actions for Hampton,
23 Hampton Falls, and Seabrook using Figure 1-A in Attachment C,
24 and under Subparagraph A, it says, "For seasonal beach
25 populations in Hampton and Seabrook, recommend sheltering or

1 evacuation in accordance with the results of Step 2."

2 And now referring to Figure 1-A, that is the dose
3 projection worksheet that is used for all populations in
4 projecting doses, and the decision -- and my question is, would
5 the decision then be based on those dose projections?

6 A (Wallace) Yes.

7 A (Callendrello) But you need to keep going further on
8 that same page. There is clearly a caution box there that
9 indicates if some earlier action's been taken, that is, either
10 precautionary beach closure, or evacuation -- in other words,
11 people are moving -- that evacuation has to continue to be the
12 protective action because we're not going to tell people to
13 stop moving and go back and go into a shelter.

14 Q All right, but if people have not yet been advised to
15 move, then this decisionmaking process is the one that would
16 take over.

17 A (Callendrello) Yes.

18 A (Wallace) That's what drives --

19 Q Okay.

20 A (Wallace) -- the recommendation.

21 Q So just to get some agreement, according to this
22 there might be instances in which the entire beach population
23 would be advised to shelter; is that correct?

24 A (Wallace) That's correct. Once again in our general
25 statement, if the maximum dose savings for the most

1 number of individuals can be achieved through shelter, that's
2 the recommendation that would be given.

3 Q Okay. I believe now we've covered the entire -- all
4 the provisions in the New Hampshire plan that I can see deal
5 with sheltering for the beach population. Once again, if you
6 can show me anything else, let me know now.

7 A (Callendrello) Just to be complete, you're
8 addressing solely sheltering. There are obviously other
9 provisions that deal with precautionary actions --

10 Q Right, just sheltering.

11 A (Callendrello) -- and other protective actions.

12 I don't know of any others. I don't know if any
13 other panel member can think of one.

14 A (Bonds) In terms of how you arrive at the decisions,
15 I think there may be a section in the recovery reentry state
16 that deals with what happens after you have done it, but it's a
17 post-decision process.

18 Q Okay. I'd like to turn to your testimony now.

19 On Page 19 of your testimony, it states that
20 sheltering of the beach population would be considered in a
21 very limited number of circumstances, and I believe you have
22 already gone through earlier this morning the three
23 circumstances in which it may be considered.

24 Now, turning to Page 20, you state, with respect to
25 implementation of sheltering for the beach population, that New

1 Hampton decisionmakers will rely on the mechanisms now in place
2 or to be put in place in New Hampshire for recommending shelter
3 to the public whether on the beach or anyplace else. These
4 mechanisms include rapid assessment of accident conditions,
5 activation of the public alert system, which include the beach
6 public address system and EBS announcements.

7 Does the phrase "mechanisms to be put in place" refer
8 to the new amendments to the plan that we've discussed today
9 and yesterday, which would be decisionmaking criteria and the
10 new EBS messages, and I suppose the provisions for the transit-
11 dependent population?

12 A (Callendrello) Yes, it does. Of course, I won't
13 address what may or may not wind up in the plan at some future
14 time, but those are the mechanism that are identified in this
15 most recent update of the plan, yes.

16 Q Dr. Wallace, are there any mechanisms that the state
17 is now evaluating as an amendment to the plan?

18 A (Strome) I'm not aware of any specifically that
19 we're working on at the present time, but that process is
20 dynamic as I pointed. We may elicit some information from you
21 today that we'll consider to incorporate in the plans.

22 Q Your testimony on Page 14 also refers to signs and
23 other public information material which will be placed in the
24 beach area.

25 Are these signs and public information the same as

1 those already served on the parties as part of Revision 2?

2 A (Callendrello) Yes, it is.

3 Q Those signs contain no instructions with respect to
4 sheltering the beach population, do they?

5 A (Callendrello) I haven't looked at that in quite
6 awhile. The signs do not address sheltering. There are other
7 materials that do address sheltering, at least in general
8 terms. I don't recall any specific provisions in that public
9 information material for sheltering of the beach population.

10 Q Do you recall generally what the signs that are to be
11 placed in the beach area do, do instruct the beach population
12 to do?

13 A (Callendrello) I don't recall the exact wording, but
14 their intent is to direct people when they hear a siren to turn
15 to an emergency broadcast system station, and the signs list
16 the various stations that will be carrying emergency broadcast
17 system messages.

18 Q Okay. Another proposed amendment, or maybe it's a
19 recently adopted amendment that's referred to in your testimony
20 at Pages 15 through 16 would be to reduce the area in which
21 precautionary actions would be taken for the beach population
22 by changing the northern boundary of that area from Little
23 Boars Head to Great Boars Head; is that correct?

24 A (Callendrello) No, you haven't characterized the
25 intent of that change correctly.

1 We blew it in Revision 2 in 8-86. We said Little
2 Boars Head instead of Great Boars Head. It was a typographical
3 error, an editorial error. It should have been Great Boars
4 Head all along.

5 What we've done in the testimony is indicate that it
6 should have been, and have corrected that.

7 The traffic control points, access control points
8 were all consistent with implementation of protective actions
9 for the area bounded by Great Boars Head to the north, and the
10 Massachusetts - New Hampshire state line to the south.

11 Q But this amendment does change that boundary from
12 Little Boars Head to Great Boars Head?

13 A (Callendrello) It changes the words "Little Boars
14 Head" to "Great Boars Head", yes. It doesn't actually reduce
15 the area where actions were being taken, though.

16 Q Well, isn't it true that the amendment in fact
17 eliminated approximately three miles of the coastline in
18 Hampton Beach from the area in which precautionary measures
19 would be recommended?

20 A (Callendrello) No, it wouldn't, and the reason is
21 we're talking about, as I said, a typographical or an editorial
22 error in the procedure. The other procedures and the rest of
23 that decisionmaking procedure were consistent with taking
24 actions from Great Boars Head to the north, to the border at
25 the south. We haven't reduced the area for precautionary or

E15

1 early protective actions. It's merely a clarification to
2 correct an error in the procedure.

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3 Q Well, it may clarify your intent, but it is true that
4 if precautionary measures were taken up to as far as Little
5 Boars Head, there would be an additional three miles of beach
6 area in Hampton Beach for which precautionary actions would be
7 taken; is that correct?

8 A (Callendrello) If that was the northern boundary of
9 that area, yes.

10 Q Okay, and there are no plans to implement
11 precautionary measures for that area between Great Boars Head
12 and Little Boars Head now in the plan, are there?

13 A (Callendrello) No, and there never have been.

14 Q Well, by reading the plan, there were. That was the
15 area indicated previously in the plan for which precautionary
16 measures would be taken, correct?

17 A (Callendrello) I have given the answer I think
18 several times now. But if you look at the other procedures of
19 the EBS messages, they are all consistent with taking actions
20 from Great Boars Head and then south, and I think we have
21 indicated this in our testimony right from the very beginning
22 from the earliest version that we filed in September, that this
23 was in fact a mistake and we would -- the plan would be changed
24 to correct that.

25 Q Okay. I just primarily want to make it clear that no

1 precautionary measures would be taken for any of the beach
2 areas north of Great Boars Head, which would include portions
3 of Hampton Beach, the northern part of Hampton Beach, the beach
4 areas in Rye, and the beach areas in North Hampton; is that
5 correct?

6 A (Callendrello) That is correct.

7 MR. TURK: May I ask that the question be reread?

8 JUDGE SMITH: The last, the very last question.

9 MR. TURK: Yes, which has been answered already.

10 JUDGE SMITH: Would you read it back, please?

11 (Accordingly, the record was read back by the
12 court reporter.)

E16 13 (Continued on next page.)

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T17 1 THE WITNESS: (Strome) Could I add something to
2 what Mr. Callendrello has said in his response?

3 MS. SNEIDER: If you would like.

4 THE WITNESS: (Strome) I think we should point out
5 that while these planning documents provide us guidelines for
6 action, and to remind us of actions that need to take place,
7 that there is in fact a subjectivity involved in this
8 decisionmaking process. And if we, for example, wanted to
9 exercise some precautionary measures in the area of which you
10 speak, that north of Great Boars Heads, that certainly remains
11 within the purview of the decisionmakers involved in the
12 process.

13 So these plans, as I pointed out before, are not only
14 dynamic, they're not cast in concrete at anytime.

15 MS. SNEIDER: Well, we see that by the recent change
16 in the plans.

17 THE WITNESS: (Strome) But that's the process, I
18 might point out, counselor.

19 MS. SNEIDER: Right.

20 THE WITNESS: (Strome) So that we can continue to
21 improve the plans.

22 MS. SNEIDER: Okay.

23 THE WITNESS: (Strome) And I think that's a vital
24 aspect of the planning process is that those of us who have the
25 decisionmaking authority continue to address ourselves to the

1 changes that are required to provide the best possible planning
2 documents for the citizens for this state. I'm sure all of us
3 are interested in trying to accomplish that goal.

4 MS. SNEIDER: Okay. Well, I'm just trying to get
5 clear on what is in the plan now in terms of protective
6 measures.

7 BY MS. SNEIDER:

8 Q And to follow up with my previous question, there are
9 no plans either to shelter any of the -- to shelter any of the
10 beach populations beyond Great Boars Head, are there?

11 MR. FLYNN: The previous question talked about
12 evacuation, and I understand the pending question to also talk
13 about precautionary actions as opposed to the entire range of
14 protective actions under any circumstances; is my understanding
15 correct?

16 MS. SNEIDER: I don't understand your question.

17 MR. FLYNN: You're talking about the precautionary
18 actions. You're talking about actions talking about actions
19 taken at the alert level of the site area emergency level as
20 opposed to actions taken in a general emergency.

21 MS. SNEIDER: The previous questions concerned
22 precautionary beach closing. We've established that there are
23 no measures in place for precautionary beach closing for the
24 beach areas north of Great Boars Head.

25 MR. FLYNN: Well, perhaps we understand precautionary

1 in different senses.

2 Do I correctly understand precautionar, o refer to
3 actions taken at the alert level or site area emergency as
4 opposed to general emergency?

5 MS. SNEIDER: Well, I'm using the terms that are used
6 in the New Hampshire plan which speaks of precautionary beach
7 closing at site area and alert emergency levels, and it talks
8 about protective actions in a general emergency level.

9 MR. FLYNN: So then the pending question goes to
10 actions taken at site area and alert levels?

11 MS. SNEIDER: No, it does not.

12 MR. FLYNN: Thank you.

13 JUDGE SMITH: Well, if it doesn't, then I have lost
14 the thread of the examination, too.

15 MS. SNEIDER: Well, consistently when I have asked
16 whether there is plans in place to shelter the summer beach
17 population, the panel has referred to, we may not have plans
18 but we have precautionary measures to get people out of there
19 quickly.

20 I'm asking for these beach areas that don't have
21 precautionary measures if there are plans to shelter the beach
22 population.

23 THE WITNESS: (Strome) The beaches to which you
24 refer are to those areas, actually the communities is what they
25 are. They have general provisions for sheltering incorporated

1 in the plans. Sheltering would probably not be a
2 recommendation that we would make at the alert level for those
3 communities --

4 BY MS. SNEIDER:

5 Q In a general emergency --

6 A (Strome) -- as a precautionary action.

7 Q Okay. At a general emergency is there any provision
8 for sheltering the beach populations located in beaches in the
9 northern part of Hampton, in North Hampton, or in Rye?

10 A (Strome) Well, we're going to have to separate North
11 Hampton and Rye from the Hampton area. We have within the
12 planning documents, as we've said many times before, provisions
13 for sheltering the general population, and certainly the
14 general population in North Hampton and Rye falls within that
15 category.

16 There are provisions also within the planning
17 documents for handling sheltering -- for handling the
18 sheltering provision within the Town of Hampton. So there
19 really isn't any difference in the process.

20 Q I'm referring now to the transient beach population?

21 A (Strome) You mean in Hampton or --

22 Q In Hampton, north of Great Boars Head, in North
23 Hampton, and in Rye.

24 A (Strome) The intent of the planning documents
25 obviously is not to shelter the transient population in

1 Hampton. As I think we have said before, what we intend to do
2 if we can, as a precautionary measure well below any serious
3 contingency that arises, is to move that population out of the
4 beach area.

5 Q Okay, and that's for the areas --

6 A (Strome) Now, the beach areas north of Hampton, and
7 North Hampton and Rye, for example --

8 Q And also in parts of Hampton, correct?

9 A (Strome) Yes, but we're talking about -- you
10 specifically mentioned North Hampton and Rye. They generally
11 are not the larger beaches in the area. They generally carry a
12 much smaller beach population, and they do not require
13 essentially the kind of specific attention that we're giving to
14 the heavily populated beach area that exist in Hampton and the
15 Hampton Beach area. And the provisions are located within the
16 planning documents to handle that population.

17 I pointed out before also that there is certainly
18 provision within the plan to get information to those people in
19 North Hampton and Rye, and to tell them that there are
20 problems, for example, that are arising at Seabrook Station and
21 it would be best if they left the area. We can do that.

22 Q Can you point me to any provision in the plan for
23 sheltering the transient beach population in the portion of
24 Hampton Beach north of Great Boars Head in North Hampton Beach
25 or on Rye Beach?

1 A (Strome) Could we confer for a moment, please?

2 (Witnesses confer.)

3 THE WITNESS: (Bonds) Let's see if I can sort this
4 out.

5 If I understand your question, is there any place in
6 the plan that addresses sheltering for the population north of
7 the area in which the beach closure could take place; that
8 is, --

9 MS. SNEIDER: Yes.

10 THE WITNESS: (Bonds) -- a portion of Hampton, North
11 Hampton and Rye.

12 BY MS. SNEIDER:

13 Q And I'm referring to the transient beach population.

14 A (Bonds) No, there is not, but the definition of
15 shelter in place is still there, and the sentence that we
16 looked at before, transients without access to indoor location.
17 If we felt that it were crucial that we could shelter and there
18 was no other shelter capability available for these folks,
19 transients without the indoor location would simply be expected
20 to evacuate.

21 Q Okay, thank you.

22 A (Strome) And I might point out also that Great Boars
23 Head falls approximately three miles from the plant, so that
24 initial two-mile circle of which are immediately concerned
25 normally is -- that particular population falls well without

1 it.

2 Q But within the 10-mile zone.

3 A (Strome) No question it's within the 10-mile
4 emergency planning zone.

5 I should add to clarify that, the State of New
6 Hampshire does not have a strict 10-mile emergency planning
7 zone. So any community that touches the 10-mile emergency
8 planning zone has a planning document prepared for it.

9 For example, the Town of New Castle falls entirely
10 without the 10-mile emergency planning zone, and a specific
11 radiological emergency response plan has been prepared for it.

12 Q Thank you.

13 On Page 21 of your testimony it states that the New
14 Hampshire RERP is being amended to provide protection to the
15 transients while they are awaiting transportation assistance.

16 Are all of those amendments included in the February
17 1988 revision to the plan?

18 A (Callendrello) No, there's one -- there's reference
19 on Page 21 that says, "The NHRERP will identify potential
20 shelter locations for the transient beach population without
21 transportation."

22 That has not yet been added to the New Hampshire
23 plan.

24 Q Okay.

25 Dr. Wallace, have you selected the criteria upon

1 which the state's selection of shelters for the transportation-
2 dependent population will be based?

3 A (Wallace) Ask that again. What did you ask for?

4 I'm sorry, I didn't hear the question part of it.

5 Q Okay. Have you selected the criteria upon which the
6 state's selection of shelters for the transportation-dependent
7 population will be based?

8 A (Wallace) Criteria for selection?

9 Q How will the state decide which buildings will be
10 used as shelters for the transportation-dependent population?

11 A (Wallace) If I may have a little discussion, if I
12 might, but there are no fixed criteria in terms of the
13 selection of those buildings. The buildings that are
14 available, primarily the public -- you know, publicly
15 accessible buildings, but there are no other kinds of specific
16 criteria.

17 A (Bonds) I'd like to amplify on that. Dr. Wallace
18 sets at the top of a very tall chain along with Mr. Strome.

19 There are criteria under discussion that they haven't
20 gotten that far up the line yet is not surprising. So the
21 actual criteria have not been selected, but we're looking in
22 terms of the suitability of the shelter in general, its
23 location, whether or not its centrally located; these are
24 general things we have in mind.

25 We have some ideas in mind. We haven't had the time

1 to sit down and actually lay it out whether or not it has no
2 windows, all windows, whether it's within one block, 10 blocks.
3 We haven't come down with a specific set of criteria against
4 which we would measure all municipal buildings in the area.
5 It's still at the planning stage in terms of generally what
6 kinds of things would you look for or seek to avoid, and that's
7 still far down the line in the planning process.

8 JUDGE LINENBERGER: Excuse me.

9 With respect to your answer there, which I think I
10 understand, I would like to inquire of you, Mr. Bond, what you
11 foresee as a kind of time schedule for these criteria to be
12 completely formulated and moved through this hierarchy of
13 management, and then, in your estimation, become final. Or
14 let's say not final, but reach some sort of approval stage.

15 THE WITNESS: (Bonds) From a planning basis and
16 given that planners move by time tables considerably different
17 than what the decisionmakers are moving, I would certainly hope
18 that we could move a final product into the decisionmakers'
19 hands for consideration in the fall.

20 Now, how they act on it and what they do with it,
21 that's an entirely separate matter beyond anything I would have
22 any control over.

23 JUDGE LINENBERGER: Thank you, sir.

24 JUDGE SMITH: So much for decisionmakers.

25 (Laughter.)

1 MS. SNEIDER: I just hope in an accident they'll be a
2 little quicker.

3 JUDGE LINENBERGER: While we're having asides here,
4 may I inquire approximately where you are in your cross-
5 examination plan?

6 I confess to being a bit lost, even completely lost.

7 (Laughter.)

8 MS. SNEIDER: Excuse me while I locate it.

9 JUDGE LINENBERGER: Oh, I'm sorry.

10 MS. SNEIDER: At III-A-2.

11 JUDGE LINENBERGER: Thank you.

12 BY MS. SNEIDER:

13 Q I believe we have just discussed all the
14 references --

15 JUDGE SMITH: Excuse me. If I understand it right,
16 you are -- if we take your cross-examination plan, say it's as
17 a measure of the quantity of your cross-examination, you have
18 accomplished perhaps one-tenth of your cross-examination?

19 MS. SNEIDER: I would think it would be more than
20 that. A fifth is probably more likely.

21 JUDGE SMITH: Look at VI on Page 4. Will you be
22 going through all that again, or through all of that?

23 MS. SNEIDER: Some of it may not be gone through. If
24 I think we have covered it, I won't be going through it again.

25 JUDGE SMITH: Okay.

1 BY MS. SNEIDER:

2 Q Okay, I think we've just discussed any references
3 that I could find in your testimony to proposed or already
4 adopted amendments to the plan regarding sheltering for the
5 beach population.

6 Are there any additional material changes to the plan
7 that the state intends to adopt with respect to protective
8 actions for the seasonal beach population that are not
9 reflected in your direct testimony?

10 A (Callendrello) It would be helpful to if there's
11 clarification.

12 Are you addressing only sheltering, or are you
13 addressing the precautionary actions, protective actions, the
14 entire range of actions for the --

15 Q The entire range of actions.

16 A (Callendrello) There's certainly, as I indicated in
17 response to a question on whether there were any other changes
18 relating to sheltering, there are other changes in the plan
19 that relate to protective or precautionary actions for the
20 beach populations.

21 Q That we have not -- that are not included in your
22 testimony, or we have not discussed as possible amendments?

23 A (Callendrello) That -- to talk about some specifics
24 for example.

25 In the procedures for the Department of Resources and

1 Economic Development, they have got instructions there that are
2 consistent with the policies and procedures laid out in
3 Appendix F. They may have been changed from what was in
4 Revision 2 dated 8-86. So there are agency-specific procedures
5 that have been changed to be consistent with the overall policy
6 procedure, and that is the protective actions recommendation
7 procedure.

8 Q Are there any other changes that haven't been
9 mentioned that the state -- and I'm talking about not
10 amendments that the state has already adopted, but is the state
11 considering any additional amendments to the plan with respect
12 to the seasonal beach population that we have not discussed
13 yet?

14 A (Strome) Well, none that I'm aware of counselor, but
15 let's look at the process.

16 The world continues outside the courtroom. We've
17 submitted these updates to FEMA for comment, and I think there
18 are perhaps a half a dozen or so that specifically applied to
19 sheltering. We would expect that in good time FEMA will
20 respond to us and say, yes, these are good; or, no, they're not
21 and would like to suggest the following changes.

22 I might point out that FEMA not only has oversight.
23 They have an assistance function with respect to this. So that
24 process continues, and I would expect, aside from that specific
25 federal assistance kind of process, that the other plan is that

1 working in this procedure will be reviewing and updating
2 procedures as time goes on.

3 So to answer your question directly, I'm not aware of
4 any specifically, but I can almost guarantee you that there
5 will be.

6 Q There's none that you are aware of that are now
7 specifically under consideration by the state.

8 A (Strome) That's correct.

9 A (Bonds) May I amplify on that?

10 The testimony embodies the concepts as they presently
11 stand at the state level. There is no change in those concepts
12 at all going on now beyond this. It just has not gotten there.

13 As Mr. Callendrello spoke, implementing procedures to
14 put those kind of concepts in place may have been part of this
15 recent round of amendments. Some of them may still be in a
16 pipeline someplace. There is a lot of I's to dot and T's to
17 cross once you decide you are going to change something up
18 front. By the time it works itself to the tail-end of the
19 process a lot has to happen. Some of that may have already
20 happened, but it hasn't changed, it will not change the
21 concept. It's how the concept is implemented. The nuts and
22 bolts may still be out there in some planner's mind in terms of
23 how to fix something, but not the concept.

24 Q Okay. I'd like to turn now to Page 5 of your
25 testimony.

1 Your testimony states at Page 5, "The New Hampshire RER

2 RERP is predicated on the understanding that emergency planning
3 for nuclear plant is not required to be designed to address any
4 particular accident sequence or 'a worst-case accident.'"

5 Is that accurate?

6 A (Wallace) (Nods affirmatively)

7 Q Okay. Your question then quotes from NUREG-0654 by
8 stating, "No specific accident sequence should be isolated as
9 the one for which to plan because each accident could have
10 different consequences both in degree in nature."

11 Is that correct?

12 A (Strome) That's what the testimony says.

13 Q Okay. But the paragraph that your testimony quotes
14 from NUREG-0654 goes on further explain the spectrum of
15 accidents selected by EPA and NRC for the emergency planning
16 basis, doesn't it?

17 A (Baer) I'm sorry, could you repeat the question?

18 Q Your testimony here quotes from a paragraph in
19 NUREG-0654, and if you would like a reference, it's at Page 7
20 of NUREG-0654.

21 A (Baer) Yes.

22 JUDGE SMITH: Just a moment.

23 (Pause.)

24 BY MS. SNEIDER:

25 Q That paragraph in NUREG-0654 goes on to further

1 explain the spectrum of accident selected by EPA and NRC for
2 the emergency planning basis, doesn't it?

3 A (Baer) The paragraph continues to refer to a range
4 which includes a range where no planning at all would be
5 required to planning for some worst possible accident. It
6 refers to a range, yes.

7 Q Well, am I correct it states that, "Although the
8 selected planning basis is independent of specific accident
9 sequences, a number of accident descriptions were considered in
10 the development of the guidance, including the core melt
11 accident release categories of the reactor safety study."; is
12 that correct?

13 A (Baer) That's what it says, yes.

14 Q So am I correct that the planning basis selected by
15 NRC and EPA, although it does not include the "worst-case
16 accident", does include a variety of core melt release
17 categories, including some with early releases beginning within
18 one-half hour of the onset of accident conditions?

19 A (Callendrello) Yes, that is correct. However, I
20 believe the timing sequences that you refer to may not refer to
21 the core melt accidents.

22 Q Well, if I change that one-half hour to one hour,
23 would you say that timing sequence referred to the core melt
24 accidents?

25 MR. TURK: Objection.

1 JUDGE SMITH: What's the basis of your objection?

2 MR. TURK: It's two-fold, Your Honor.

3 One, it's looking to probe the regulatory basis
4 behind NUREG-0654 which I think is more a matter of legal
5 argument than something to address to the witnesses.

6 And, second, I think it's beyond the relevancy of the
7 testimony.

8 JUDGE SMITH: Overruled on your second basis.

9 Do you want to be heard on the first basis?

10 MS. SNEIDER: The question was in response to the
11 witness's answer where he was relying on the core melt
12 sequences for the release times, and disputing the half-hour,
13 disputing the statement that early releases beginning within
14 one-half hour of the accident conditions, or that the spectrum
15 of accidents included that.

16 MS. WEISS: Mr. Chairman, if I may.

17 JUDGE SMITH: Certainly.

18 MS. WEISS: The questioning began around statements
19 made on Page 5 of the direct testimony that the New Hampshire
20 RERP is predicated on the understanding that emergency planning
21 is not required to design -- to be designed to address any
22 particular accident sequence, and quotes NUREG-0654 as the
23 basis for what description of what is -- what the NHRERP is
24 predicated upon.

25 So I think clearly any questioning about 0654 and

1 their understanding of it is relevant to the testimony.

2 JUDGE SMITH: Where there's relevant understanding of
3 it. I mean, the understanding on this point.

4 MS. WEISS: Yes.

5 JUDGE SMITH: Well, I think the argument that this is
6 a challenge to the regulation does not have merit even -- their
7 understanding of it, even if their understanding is
8 inconsistent with the regulation is still --

9 MS. WEISS: That purports to be the basis --

10 JUDGE SMITH: -- appropriate cross-examination.

11 MS. WEISS: Exactly, to the degree that it purports
12 to be the basis for the plan.

13 MR. DIGNAN: May I respectfully suggest that the -- I
14 think that the second question which has been objected to is
15 because Ms. Sneider didn't hear carefully the answer Mr.
16 Callendrello gave here. And maybe if she could put the first
17 question again, get the answer back, because her description of
18 what she understood she heard from Mr. Callendrello did not
19 square with what Mr. Callendrello said, and that's why the
20 problem has now developed.

21 And maybe if we go back, start the sequence, it might
22 alleviate everybody's problem here, because we had no objection
23 to it, but I heard her describe what she thinks the witness
24 said, and that's not what he said.

25 JUDGE SMITH: And to complicate matters even further,

1 I don't recall what she said anymore than I remember what the
2 witness said.

3 MS. SNEIDER: Could I have the two questions reread?

4 JUDGE SMITH: Well, that's very, very far back.

5 MR. DIGNAN: If I could advise what I meant by that,
6 Your Honor.

7 She asked Mr. Callendrello a question in which he
8 gave an answer that said he did not agree that the core melt
9 sequences were the ones that gave rise to the half-hour
10 release, so-called.

11 JUDGE SMITH: Right. That's correct.

12 MR. DIGNAN: She has taken that to mean, as I heard
13 her, that Mr. Callendrello was saying they didn't have to plan
14 with a view to those fast releases, and that's not what he
15 said.

16 MS. SNEIDER: I didn't understand that the way you
17 just phrased it. I do agree with Mr. Dignan's interpretation
18 of Mr. Callendrello's response.

19 And my secnd question was in direct response to
20 that. If I can think for a minute, I may --

21 JUDGE SMITH: Why don't we just take a moment. I
22 don't want to go back, read it back.

23 Your second question -- why don't we delete that
24 question and answer and you start fresh. Would that be all
25 right with you?

1 You didn't get an answer, by the way.
2 Let's take our break, 15 minutes.
3 (Whereupon, a recess was taken.)
E18 4 (Continued on next page.)
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1 BY MS. SNEIDER:

2 Q Mr. Callendrello, during the break I had the Court
3 Reporter read back to me your previous response, and I believe
4 you ended your last response by stating that, you believe the
5 timing sequences I referred to in NUREG-0654 may not refer to
6 the core melt accidents; is that accurate, is that what you
7 stated?

8 A (Callendrello) That's the way I remember it, yes.

9 Q My next question to you is, if I change that half
10 hour to one hour would you say the timing sequence referred to
11 the core melt accidents?

12 MR. TURK: Objection, Your Honor. The same objection
13 as before. I don't have an objection that the question
14 challenges the regulations, but rather it's an objection that
15 it seems that the question seeks to determine what the basis
16 was for NUREG-0654; and to answer that we'd have to look at
17 0396 and we'd have to look at the reactor safety study and
18 determine which particular accidents were expressly considered,
19 at least insofar as the documents reveal.

20 I think all of that is irrelevant for our purposes
21 here. And I think it also would seek to ask the witness
22 something as to the regulatory basis, the planning
23 considerations in the minds of the federal agency employees
24 when they developed NUREG-0654.

25 MS. SNEIDER: Well, again, I say, Your Honor, that

1 the question is directly responsible to the witness' answer.
2 And if the question is objectionable, then I think the response
3 is equally objectionable and should be stricken.

4 JUDGE SMITH: So you'll settle for that?

5 MS. SNEIDER: I would settle for that right now.

6 JUDGE SMITH: If you had an answer which was not
7 responsive to your question, then you don't want to pursue the
8 point, then I guess in view of the objection that would be the
9 solution.

10 MS. SNEIDER: Well, I do think the answer was
11 responsive and my follow-up question was equally responsive,
12 was responsive to the response I got.

13 JUDGE SMITH: Where did you get that half hour?

14 MS. SNEIDER: NUREG-0654, page 13, I believe. I
15 don't have a copy of it right with me.

16 MR. TURK: There are two areas in NUREG-0654, Your
17 Honor. One is on page 13 in the bottom paragraph, time factor
18 associated with releases. The second area is page 17, table 2.

19 MS. SNEIDER: At the bottom of page 13 it says: "The
20 range of times between the onset of accident conditions and the
21 start of a major release is of the order of one half hour to
22 several hours."

23 (Board confers)

24 JUDGE SMITH: So you're withdrawing your question
25 which adduced -- you're withdrawing the question which has been

1 the subject of the objection now. You're withdrawing the
2 question which would propound to the witness the one hour
3 hypothesis?

4 MS. SNEIDER: I'm not withdrawing the question if the
5 objection to my question is sustained, then I would move to
6 strike the latter part of the witness' response which referred
7 to the timing of core melt accidents.

8 JUDGE SMITH: I just might say that both Judge
9 Linenberger and I are at a loss of what the parties are
10 litigating at this moment; we don't know what the purpose of
11 your question is. We don't know -- understand the significance
12 of his response.

13 So to the extent that your adversial -- your
14 adversial condition with the witness, you're even.

15 MS. WEISS: Mr. Chairman, if I may, I think we've
16 established by the question and the answer the main thing which
17 we wanted to establish and that is, that the planning basis for
18 the New Hampshire RERP includes an accident with a release
19 within as soon as half an hour from the onset of accident
20 conditions.

21 And the second question was simply whether there was
22 some knowledge on the witness' part about whether that
23 particular accident was a core melt or whether it was some
24 other sequence; and that's where we got into trouble.

25 But I would certainly, as far as I'm concerned, not

1 want the question -- the first question, the first response
2 withdrawn with that regard to whether we -- how you may rule on
3 the outstanding objection on the second question.

4 JUDGE SMITH: So what we have is, we know that the
5 planning basis is a major release within a half hour.

6 MS. WEISS: Yes.

7 JUDGE SMITH: But we don't know anymore than that, if
8 it's a core melt or what.

9 MS. WEISS: That's right.

10 JUDGE SMITH: But we know that the planning basis
11 does, however, take into account a core melt.

12 MS. WEISS: Variety of core melt sequences.

13 JUDGE SMITH: Variety of core melts.

14 MR. DIGNAN: Your Honor, not to get in the argument,
15 but the difficulty comes up with this, I think if the question
16 proceeds what will come forth from the technical members of the
17 panel is most people do not associate the quick release with
18 the core melt. It results from other phenomenon than a core
19 melt.

20 And all the witness was, was making it clear that he
21 was having difficulty accepting the question as it was first
22 put to him which equated the half hour release with the core
23 melt sequence; that's what the problem is.

24 JUDGE SMITH: That's when the bargaining began.

25 MS. WEISS: Yes.

1 MR. DIGNAN: I don't know if it's bargaining, but
2 that's the difficulty. And the answer -- if the answer is going
3 to be -- if the first answer is going to be stricken, I want it
4 all stricken and we can start from part 1. If it's going to
5 stay in, then I want it all to stay in because it's accurate,
6 truthful and exactly what the facts are. And a piece of it is
7 not, in my opinion, given the way the question was phrased.

8 JUDGE SMITH: Would you characterize your position
9 vis-a-vis Mr. Turk's position?

10 MR. DIGNAN: I have no objection to the line of
11 inquiry wherever it goes. But I don't want that answer to be
12 cut in half because I know why Mr. Callendrello answered that
13 way and I think his answer as phrased to the question that was
14 given him was absolutely accurate; and I don't want it cut in
15 half because at that point, given the question that was asked,
16 it would become inaccurate. That's all I'm concerned with.

17 Where we go with this second question, I haven't got
18 a dog in the fight. I just don't want that first answer cut in
19 half, that's all.

20 JUDGE SMITH: We'll allow the answers to remain as
21 it's understood to include Mr. Callendrello's understanding of
22 the planning basis.

23 MS. SNEIDER: And may he respond to my subsequent
24 question?

25 JUDGE SMITH: Yes.

1 MR. TURK: In the same context as to his
2 understanding of the planning basis.

3 JUDGE SMITH: Yes.

4 MR. DIGNAN: Could we have the precise question read,
5 because I think there's some difficulty with it.

6 BY MS. SNEIDER:

7 Q If I change that one half hour to one hour would you
8 say the timing sequence referred to the core melt accidents?

9 A (Callendrello) It may. The guidance of NUREG-0654
10 is not clear on this point as to whether the half hour release
11 or any of the timing sequence is specifically referred to a
12 core melt accident or any other sequence.

13 On page 13 of NUREG-0654 the sentence that says:
14 "The subsequent time period over which radioactive material may
15 be expected to be released is of the order of one half hour for
16 a short term release, there's no characterization beyond that
17 as to whether it's a core melt or any other type of release."

18 And it's my understanding that the half hour planning
19 basis is to ensure that the prompt notification capabilities
20 exist. And on page 14 that specific requirement is addressed
21 by saying in the parenthetical: "Other reasons for requiring
22 prompt notification capabilities include faster moderate
23 releases for which protective actions are desirable. And the
24 need for substantial lead times to carry out certain protective
25 measures such as evacuation when this is indicated by plant

1 conditions."

2 I do not know whether that is a core melt accident
3 sequence or some lesser accident sequence; it's just not clear
4 from the document.

5 Q Okay. Well, would you agree that the New Hampshire
6 RERP should be able to cope with the fast developing accident
7 involving a large-scale release?

8 A (Callendrello) That is the guidance that's indicated
9 in NUREG-0654 for the time factors associated with the release;
10 and that is a start of a major release of the order of one half
11 hour to several hours..

12 Q Would you also agree with that, Dr. Wallace?

13 A (Wallace) Yes.

14 Q In fact, the objective of the protective responses in
15 the New Hampshire RERP is to control the radiological exposures
16 to which the public may be subjected in the event of a
17 significant release of radiation; isn't that so?

18 A (Wallace) Yes. I'm not sure where you're reading
19 from, but what I heard you state is correct. Dose savings is
20 what this is all about.

21 Q Well, actually I was reading from page three of
22 Appendix 1 to your testimony which is New Hampshire response to
23 FEMA's supplemental testimony?

24 A (Wallace) Thought it sounded familiar.

25 Q Okay. I'd like to turn now to page 10 of your

1 testimony.

2 Dr. Wallace, on page 10 of your testimony it states:
3 "That precautionary actions for the summer beach population
4 are, quote, "intended to remove the beach population before the
5 potential for exposure beyond PAGs or protective action guides
6 exist." Is that correct?

7 A (Wallace) That's correct.

8 Q Now, precautionary actions essentially mean that the
9 state will consider closing the beaches in Seabrook and South
10 Hampton in alert level emergency and will either close the
11 beaches or call for an evacuation of the beaches in the event
12 of a site area emergency; is that correct?

13 A (Wallace) That's correct.

14 A (Bonds) There's an additional step in terms of
15 access control, implementing access control so that you're not
16 allowing people in at the same time you're trying to move
17 people out.

18 Q For the purposes of my cross when I talk about beach
19 closing I will also assume access control, just to make things
20 easier.

21 Now, an alert or site area emergency would not by
22 definition involve a significant offsite release of radiation,
23 would it?

24 A (Wallace) That's correct, it would not.

25 Q And by definition it's only a general emergency that

1 might result in a significant release of radiation offsite; is
2 that correct?

3 A (Wallace) Yes. I don't have the exact definitions
4 of the four ECLs, but that's correct.

5 Q So when your testimony talks about removing the beach
6 population before the potential for exposure beyond the PAGs
7 exists, it's not really concerned with an accident that never
8 progresses beyond the alert or site area or emergency level, is
9 it?

10 A (Wallace) I'm not sure I understand.

11 Q Well, is it true that it's talking about an accident
12 that may commence as an alert or site area emergency, but then
13 progresses to a general emergency; that's where the concern
14 lies, am I right?

15 A (Wallace) It's possible that it would progress, but
16 it's very possible that it would not ever progress beyond the
17 alert level, and we would have taken the precautionary actions
18 at the alert level and nothing further happens, but we would
19 have, you know, done what we thought was appropriate in terms
20 of precaution.

21 Page 12 on the bottom the last complete paragraph
22 there, you know, essentially says that, the levels are really
23 anticipatory.

24 Q But when the testimony refers to removing the beach
25 population before the potential for exposure beyond the PAGs

1 exists, my question is really, there would not be the potential
2 for exposure beyond the PAGs in a site area emergency or alert
3 level emergency unless it progressed beyond that stage; is that
4 accurate?

5 MR. FLYNN: I'd like to call for a clarification of
6 the question. It seems to me that the question suggests that
7 the plant operator or the state would know at the time a site
8 area emergency exists or the time that an alert emergency
9 classification exists, that the accident will go no further.

10 Is that what the question assumes?

11 MS. SNEIDER: No, the question doesn't assume that.

12 JUDGE SMITH: Are you just relying upon the
13 definition of alert and site area emergency and general
14 emergency?

15 MS. SNEIDER: I'm just trying to get clear on the
16 types of accident sequences we're addressing here and what the
17 real issue of concern is in terms of removing the beach
18 population.

19 JUDGE SMITH: Well, we can't quarrel with that, can
20 we; as long as we understand the question.

21 MS. SNEIDER: Okay.

22 JUDGE SMITH: Did you understand the question?

23 THE WITNESS: (Wallace) Now I need to know what the
24 specific question is.

25

1 BY MS. SNEIDER:

2 Q My question was, when your testimony talks about
3 removing the beach population before the potential for exposure
4 beyond the PAGs exists, it's not really concerned with an
5 accident that never progresses beyond an alert level or site
6 area emergency, is it?

7 JUDGE SMITH: See, this is where I have logical
8 trouble. Now, here we have a point in time and you are
9 requiring planning suddenly which takes you to a point in time
10 farther on. You mean, which never progresses or which does not
11 have the potential for progressing?

12 MS. SNEIDER: Maybe I should rephrase the question.

13 JUDGE SMITH: Or if my question demonstrates I don't
14 understand what you're doing, that's fine, explain it to me.
15 But I hear you saying that if an accident never progresses
16 beyond, for example, an alert or a site area emergency, if it
17 never in fact does, then the action taken at that time is
18 somehow what, as compared to, does it have the potential at
19 this point in time to progress into a general emergency.

20 MS. SNEIDER: Now I'm getting confused.

21 JUDGE SMITH: Yes. I don't think I helped. Why
22 don't you think a moment and see what you're trying to develop
23 and just rephrase your question.

24 BY MS. SNEIDER:

25 Q An alert level emergency that remains in an alert

1 level emergency does not have the potential to expose the
2 population beyond the PAGs, does it?

3 A (Wallace) As long as it stays at the alert level. I
4 mean, there's always the potential.

5 Q Right.

6 A (Wallace) But as long as it stays at the alert
7 level, by definition there is no release that's going to be in
8 excess of PAGs even at the site boundary, even within the site.
9 So, yes. There's always the potential for things to happen.

10 Q Right.

11 A (Wallace) And once again, the precautionary nature
12 is to be -- to anticipate that something might happen on the
13 basis of plant conditions or prognosis, and to take this
14 precautionary action before, even if nothing happens.

15 Q Right. And similarly a site area emergency that
16 remains a site area emergency does not have the potential for
17 exposure beyond the PAGs with respect to the offsite public?

18 A (Wallace) That's correct. By definition as it is on
19 12, any releases are not expected to exceed the EPA protective
20 action guideline exposure levels except near the site
21 boundaries. So that's correct; it's only at that point. If it
22 stays at that level, fine.

23 Q Okay. So the state's decision to remove the beach
24 population at an alert level or site area emergency is because
25 it's concerned that the site area emergency or alert level

1 emergency may in fact progress to a general emergency?

2 A (Wallace) That's correct.

3 A (Callendrello) Or may progress to any level of
4 emergency. The trigger point for the decisionmaker, if you go
5 into that procedure, says that you've got an alert level with a
6 degrading plant condition. Similarly if you look at the site
7 area emergency there's two possibilities. One is, you don't
8 have a degrading plant condition. In that case you take one
9 action.

10 On the other hand, if you do have a degrading plant
11 condition, things are getting worse, you take a different
12 action; you evacuate the beach. It's intended to be
13 anticipatory.

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14 (Continued on next page.)

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T/20 1 Q Okay. I believe Dr. Wallace's response was
2 responsive to my question. I don't see where your response is
3 exactly responsive to that.

4 The concern here is for general emergencies and my
5 question is, it's just when an accident progresses to a general
6 emergency that there would be the potential for exposure beyond
7 the PAGs?

8 MR. TURK: Your Honor, I'd --

9 BY MS. SNEIDER:

10 Q Would you agree with that?

11 MR. TURK: -- like to object in a limited sense and
12 that's to the use of the word "potential." Now, I think maybe
13 that's what's throwing off the discord -- the disconnect
14 between question and answer. Potential, as I understand the
15 word is something within the range of possibility.

16 MS. WEISS: Well, that's an exact quote from the
17 testimony. That's why I understand it's being used. That was
18 on page 10 of the testimony.

19 MS. SNEIDER: The testimony states on page 12:
20 "Under these conditions," which refers to alert level and site
21 area emergency, any projected doses to the public would be
22 expected to be below the lowest value of the EPA PAGs.

23 And my question -- I mean, I think we've already gone
24 through that by definition that would be the case.

25 JUDGE SMITH: Do you persist in your objection?

1 MR. TURK: Quite frankly, I've lost the entire
2 question. I mean, I don't know where we're at.

3 MS. SNEIDER: I believe the question to Mr.
4 Callendrello was that it's only when an accident reaches a
5 general emergency level that there's a potential -- I'll
6 rephrase the question.

7 BY MS. SNEIDER:

8 Q It's only an accident that reaches a general
9 emergency level that could result in exposure beyond the PAGs
10 to the offsite population by definition?

11 A (Callendrello) That is correct. Again, with just
12 the one subtlety of the site area emergency discusses the only
13 area where you could exceed the protective action guides would
14 be near the site boundary.

15 Q And it's your testimony at page 11, consideration of
16 these precautionary measures for the beach population at an
17 alert or site area emergency will, quote: "Afford additional
18 time to clear the beaches," unquote, in the event an accident
19 proceeds to a general emergency; correct?

20 A (Callendrello) That's not the wording of our present
21 testimony.

22 Q The sentence beginning in the middle of page 11 that
23 starts with, "At this classification level?"

24 A (Callendrello) Yes.

25 Q There's a phrase about halfway, two sentences down

1 that says: "Affords additional time to clear the beaches?"

2 A (Callendrello) Yes, it says that.

3 Q Well, actually reading the whole sentence it does
4 say: "At this classification level no offsite action would be
5 ordinarily warranted to protect the public, but its
6 consideration here affords additional time to clear the beaches
7 or prevent additional public access to the beaches;" is that
8 correct?

9 A (Callendrello) That's what it says.

10 Q My question to you is, well, is it the state's
11 position that consideration of these precautionary measures for
12 the beach population at an alert or site area emergency will
13 afford additional time to clear the beaches in the event an
14 accident proceeds to a general emergency?

15 A (Callendrello) Well, I guess where the problem lies
16 is, that sentence you read from our testimony on page 11 deals
17 with the alert classification level, and now you're bringing in
18 a site area emergency.

19 JUDGE SMITH: Well, what does additional time refer
20 to, additional time to what time?

21 MS. SNEIDER: That was going to be where this was
22 leading.

23 JUDGE SMITH: Oh, I'm sorry.

24 MS. SNEIDER: That's all right.

25 THE WITNESS: (Callendrello) Additional time would

1 be time prior to exceeding the protective action guides or
2 reaching a level where potential or it would be expected that
3 the protective action guides would be exceeded.

4 BY MS. SNEIDER:

5 Q Now, am I correct, the additional time is, you're
6 comparing the time that would be available to evacuate,
7 assuming the population that commenced evacuation at the
8 general emergency, you're comparing that to an evacuation or
9 clearing of the beaches that commences at an earlier stage?

10 A (Callendrello) Yes.

11 Q Apprximately how much additional time do you think
12 that might afford?

13 A (Callendrello) That's difficult to estimate. It may
14 be from zero time to an infinite amount of time for an accident
15 that never reaches a general emergency or never results in a
16 release that will exceed the protective action guides.

17 Q Well, is the basis for your statement that it will
18 afford additiona' time, are you making any assumptions about
19 the timing of accident sequences?

20 A (Callendrello) No. But clearly this statement
21 anticipates an accident that escalates through, at least, the
22 alert classification level on its way up to an accident that
23 would result in doses that exceed the protective action guides.

24 Q So you're not assuming that any amount of time might
25 be available; it could be no amount of additional time or five

1 minutes additional time?

2 A (Bonds) The development of the precautionary
3 measures was done in response to a concern raised by the
4 Federal Emergency Management Agency. That is addressed on page
5 three -- excuse me, Appendix 1, page five of 47, carries
6 through to page 6 of 47 of Appendix 1.

7 My understanding in the development of it, and try
8 this as an explanation to see if we can't get out of this
9 morass, is that if you looked at the protective action measures
10 as they stand, without augmentation, but as they stand. If you
11 found yourself in a situation in which you would want to
12 evacuate the population, you may find yourself with a
13 population that's far more substantial than you have a
14 reasonable time or reasonable expectation to evacuate in a
15 reasonable period of time. It's overly large.

16 My understanding is that FEMA raised that
17 consideration and asked that we consider that other actions
18 perhaps be taken in advance. And that the precautionary
19 actions were developed to afford the additional time that's
20 needed to complete an action, so that you're not confronted
21 with a hurry up and get it over with when you have no time
22 situation.

23 You can back off of the need to do an immediate
24 action by taking the precautionary actions, even though in
25 retrospect, after the fact, no action was necessary at all and

1 we catch the dickens from the Chamber of Commerce. We needed
2 that time to fully protect the population.

3 Q Your answer by its nature presumes that a certain
4 amount of additional time will be available in order to have
5 this reasonable amount of time to evacuate the population?

6 A (Bonds) No. It doesn't presume that there's any
7 time available. What it's saying is that, any time that's
8 gained by it is time well used, whether it's 10 minutes or 10
9 hours, the time is better used in advance than to say, during
10 the course of an accident when you're trying to evacuate
11 somebody says, golly, I wish we had done that earlier. This is
12 to prevent that kind of thing from happening.

13 So, if we can gain 10 minutes, we gain 10 minutes.
14 If we gain 10 hours, we gain 10 hours. The intent is to do
15 something before you find yourself in a situation when you
16 should have done something back then. It's anticipatory.

17 Q Well, if I told you that hypothetically 99 percent of
18 the accidents you'd gain an extra five minutes out of this
19 additional time, could you rely on that, the way you are now?

20 MR. FLYNN: Objection.

21 MR. TURK: Objection. Unless the hypothesis is ever
22 going to be proven in this proceeding.

23 MR. FLYNN: Same objection. The question assumes
24 facts that have not been established for the record.

25 MS. SNEIDER: Well, if I may, Your Honor, I think the

1 witnesses are coming in and saying that they're relying on this
2 additional time without coming forward with any facts that show
3 that there would be any significant additional time is, you
4 know --

5 JUDGE SMITH: Well, I don't regard that, although she
6 used the word "hypothetically," I don't regard that as a
7 hypothesis that will be put to an evidentiary test. I regard
8 it as a question which is simply exploring the reach of the
9 previous answer; therefore the objection is overruled.

et/20 10 (Continued on next page.)

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T21 1 THE WITNESS: (Bonds) Could I have the question
2 again, then, please?

3 MS. SNEIDER: Can you read that back?

4 JUDGE SMITH: But if the hypothesize does not help
5 the witness, well, then, that's another problem.

6 (Accordingly, the pending question was read
7 back by the court reporter.)

8 THE WITNESS: (Bonds) Let me answer in two --

9 MR. DIGNAN: Could I inquire as to what they rely on
10 as "your expertise"? That's what the question put in the
11 record is, Your Honor; will they rely on the lawyer's
12 expertise. That's the question. And I can't believe that
13 that's what was intended.

14 MS. SNEIDER: I said can you rely on that, and then
15 an objection came from Mr. Turk. The testimony relies on this
16 additional time as one precautionary -- as a protective action
17 for the beach population. And my question is, if there is an
18 additional five minutes of time, would they still be relying on
19 that in their testimony.

20 MR. DIGNAN: No objection to that question.

21 THE WITNESS: (Bonds) Absolutely. Without a doubt
22 we would take every second we could get our hands on. If it
23 were general knowledge that 99 percent of the time five minutes
24 was all that you had, then I doubt that we would have come to
25 this. We would have found some other mechanism to get it back

1 where 10 percent of the time 10 hours is what you had.

2 But we would have taken -- the intent is to get --
3 gain as much time as we possibly can. If five minutes is all
4 we can gain 99 percent of the time, we'll take the five minutes
5 and use it for everything we can.

6 THE WITNESS: (Strome) Can I point out that if the
7 hypothetical only gives us five minutes, then we could
8 hypothetically postulate that we'd perhaps take precautionary
9 measures at the unusual event.

10 MS. SNEIDER: Well, that's also making certain
11 assumptions about timing.

12 THE WITNESS: (Strome) Well, that's no different
13 from the assumption that you made, I think, in your
14 hypothetical, counselor.

15 BY MS. SNEIDER:

16 Q What you told me was that these precautionary
17 measures were adopted in response to FEMA's concern that the
18 beach population could not be evacuated in a reasonable amount
19 of time.

20 A (Bonds) If you turn to Page 3 -- excuse me --
21 Appendix 1, Page 5 of 47, the second full paragraph on that
22 page that begins "Through the RAC review process".

23 Q Excuse me, what page are we on?

24 A (Bonds) Page 5 of 47 in Appendix 1, numbered at the
25 bottom 3.

1 Q Okay.

2 A (Bonds) That second explains the genesis of the
3 precautionary actions.

4 FEMA made it known to the state that it was concerned
5 about a shelter in place concept that could in fact result in a
6 hasty evacuation of the transient beach population shortly
7 before or during a release. For example, the FEMA technical
8 review comments on December 1984 draft of the NHRERP contained
9 the following comment regarding the beach population.

10 Early access control and beach instructions may have
11 to be implemented and this must be considered in advance, both
12 in terms of protective action decisionmaking and public
13 notification of such.

14 The following there just simply explains what we then
15 did. At FEMA's suggestion, the state in Revision 0 to the
16 NHRERP adopted additional means for addressing this concern.
17 Those means consist of closing or evacuating the beaches and
18 establishing access control as early precautionary measures.

19 That's the genesis behind the precautionary action
20 and the explanation for it.

21 Q Okay, and I believe to -- that your testimony is
22 essentially that these precautionary measures address some of
23 the concerns that FEMA had about there being a hasty
24 evacuation.

25 A (Bonds) In part I'd have to say that that's true.

1 but that's not the only reason that they were adopted.

2 A (Strome) I think they're prudent measures that
3 planners took to take advantage of some additional
4 informational data that we could provide the citizens, and to
5 provide them a better layer of protection in depth. That's the
6 whole concept.

7 Dose savings, if we move people out of the beach well
8 before there is a serious kind of contingency that occurs at
9 the fixed nuclear site, then we have accomplished that much
10 more, and that was the rationale.

11 I don't think that was the basis for these planning
12 additions, and I think they are prudent additions.

13 Q Well, your testimony states is that they buy you
14 additional time and --

15 A (Strome) The likelihood is they would. We're
16 talking about probability here.

17 Q What's the basis for you statement that the
18 likelihood is that they would? That is where my questions are
19 going.

20 A (Callendrello) I think that you may be
21 misrepresenting what our testimony says.

22 The testimony says at this classification level, so
23 we are in an alert, no off-site actions would ordinarily --
24 would be ordinarily warranted to protect the public, but its
25 consideration here, here being we are in an alert level.

1 affords additional time to clear the beaches, and that is the
2 basis; that we are in an alert, and we are not in a general
3 emergency. Therefore, we have some time between alert and
4 general emergency. We didn't quantify that time. We expect it
5 to be some amount of time, and it will be a prudent course of
6 action to take a precautionary measure to reduce the beach
7 population, prevent additional population from coming in, and
8 therefore expedite later possible protective actions.

9 Q Well, we've had testimony here this morning that says
10 these precautionary measures were adopted, at least in part, to
11 address FEMA's concern about a hasty evacuation; is that
12 correct?

13 A (Bonds) That's correct.

14 Q If these precautionary measures gave the state only
15 an additional five minutes to evacuate the beach population, do
16 you think that would address FEMA's concerns about a hasty
17 evacuation?

18 A (Bonds) I will grant that an evacuation that begins
19 five minutes before it would have normally occurred is not
20 likely to be much less hasty than in the original point. But
21 the issue is, is that if five minutes is all we have, we didn't
22 know that when we did it. We had no foreknowledge as to when a
23 release is going to happen, or I assume don't have
24 foreknowledge 100 percent of the time as to when a release is
25 going to happen.

1 Five minutes is -- that's the kind of thing you ask
2 in a post-accident inquiry: Why did you do something five
3 minutes before something else happened.

4 In advance, we don't know that we have the luxury of
5 five days or five minutes. We know that something has to be
6 done and it's got to be done soon.

7 Q Well, if it's the state's position that these
8 precautionary measures, at least in part address FEMA's
9 concern, or may address the concern, we're not saying in every
10 accident always it would -- that would be the case, some
11 assumptions -- the state must be making some assumptions about
12 the time that would be gained; am I not correct?

13 A (Bonds) In terms of length, duration, hours, yes,
14 some fixed quantity of time?

15 Q Generally the state must be making some assumptions
16 about the time that would be gained if its position is that
17 this additional time addresses FEMA's concerns about a hasty
18 evacuation.

19 A (Bonds) There is no assumption with regard to any
20 fixed quantity of time whatsoever. The only assumption that is
21 built in there is that we have some more time to work with than
22 if we had waited until the protective action warranted an
23 evacuation.

24 Q So, would you be willing to assume that the
25 additional time is five minutes?

1 A (Bonds) There is no assumptions as to quantity.
2 There is no place in the decisionmaking process as to whether
3 you consider five minutes or five hours or whatever. It's that
4 you have the need to do something. The opportunity is
5 presented, and the mechanisms are in place. The need is there.
6 Do it.

7 A (Callendrello) The purpose of an alert
8 classification, as indicated in NUREG-0654, is to, one, assure
9 that emergency personnel are readily available to respond if a
10 situation becomes more serious, or to perform confirmatory
11 radiation monitoring if required; and, two, provide off-site
12 authorities current status information.

13 The purpose of the classification is in itself
14 anticipatory and intended to bring off-site response
15 organizations to a standby status.

16 The state has taken that one step further and . aid,
17 it is prudent if, in addition to bringing the off-site
18 organizations to a standby status, we begin to take actions
19 that will expedite possible later protective actions if they
20 should be needed.

21 There is no assumptions made at the time beyond that
22 which is already built into the definition of the alert.

23 Q Well, if I may, whenever or frequently, in responding
24 to a question concerning the lack of provisions for sheltering
25 the summer beach population, people on this panel have

1 responded, well, we have these precautionary measures to get
2 people out of the beach area.

3 If these precautionary measures are supposed to
4 substitute for sheltering, then the state must be making some
5 assumptions about the time it's going to gain people; is that
6 not right?

7 A (Bonds) There's no --

8 A (Strome) Could we confer for a moment, please?

9 (Witnesses confer.)

10 JUDGE SMITH: Now if you can give a yes or no answer,
11 please do, and explain it if required.

12 THE WITNESS: (Bonds) The answer then would be no.

13 In terms of explanation, the state does not trade
14 precautionary actions as a substitute for sheltering. The
15 testimony explains or tries to explain that if you can remove
16 the population in advance of any need to take a protective
17 action, then you have removed a major share of the concern that
18 you are going to have as to whether or not you are going to
19 shelter or evacuate the remains as a protective action.

20 It's not conceived of as a substitute for sheltering.
21 The state has a range of protective actions that -- or a range
22 of actions to be taken that run all the way from precautionary
23 actions at a very early stage up to and including sheltering
24 during a general emergency. That range is not intended as any
25 part of it substituting for any others.

1 JUDGE SMITH: My trouble with this line of
2 questioning is it seems to assume that there is some type of
3 analytical or empirical knowledge as to what type of unusual
4 events progress to alerts and what type of alerts progress to
5 site emergencies, and which of those progress to genera'
6 emergencies, and how much time is involved in each, and then
7 taking into account the spectrum of accidents that are required
8 to be considered in a planning basis. Of course, I don't think
9 there is any such information.

10 But even if there were, then it would be a formative
11 process, and that is, what had once been a site emergency would
12 then get another grading. And what had once been an alert
13 would get another grading. So it is an ethereal bag of nothing
14 that you're dealing in the hypothesize of your questions.

15 What is your basis for persisting over the minutes
16 that you have that there is some specific amount of time that
17 can be identified in a precautionary measure?

18 MS. SNEIDER: The basis -- NUREG-0654 sets forth a
19 planning basis that assumes certain warnings times which can be
20 as short as one-half hour to several hours. I read this
21 testimony as saying is an attempt to increase those warning
22 times by saying that this -- at this site they are going to
23 start protective measures earlier, and that's an attempt to
24 address the problem at this site with the short warnings times
25 whether evacuating people or implementing other protective

1 measures.

2 And if those warning times are going to be changed, I
3 want to know what the foundation for that is.

4 JUDGE SMITH: And the answer to your question now is
5 no, they don't have any.

6 MS. SNEIDER: Okay.

7 JUDGE SMITH: Any time assumptions.

8 MS. SNEIDER: Time for a lunch break?

9 JUDGE SMITH: Do you want to?

10 MS. SNEIDER: This is a good time to stop.

11 JUDGE SMITH: All right. Return at one

12 (Whereupon, at 11:43 a.m., the hearing was recessed,
13 to resume at 1:00 p.m., this same day, Tuesday, May 3, 1985.)

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A F T E R N O O N S E S S I O N

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(1:02 p.m.)

3 Whereupon,

4

JOHN BAER

5

DONALD BELL

6

ANTHONY M. CALLENDRELLO

7

PAUL R. FRECHETTE

8

JOHN D. BONDS

9

JAMES A. MACDONALD

10

RICHARD H. STROME

11

WILLIAM T. WALLACE

12 having been previously duly sworn, resumed the witness stand,
13 and was examined and further testified as follows:

14 JUDGE SMITH: What is the pleasure of the parties, do
15 you want to proceed directly to the argument on Sholly-Beyea?

16 We have a request to call Mr. Cho, legal counsel of
17 the Appeal Panel at 1:30, we'll break at that time and -- we
18 might as well proceed, though.

19 MR. DIGNAN: Your Honor. I guess the proper method of
20 procedure would be for me to make a formal motion in limine,
21 that the Board exclude the document entitled, "Commonwealth of
22 Massachusetts testimony of Steven C. Sholly on the technical
23 basis for NRC emergency plans rules; Dr. Jan Beyea on potential
24 radiation dosage consequences of the accidents that form the
25 basis of the NRC emergency planning rules; and Dr. Gordon

1 Thompson on potential radiation release sequences."

2 The basis for the motion, quite simply, as I read the
3 document and I'm sure my brother Traficonte will correct me if
4 this is in any way an incorrect statement, it is essentially,
5 if not exactly, identical to the testimony already excluded by
6 the Board, the first so-called Sholly, except that it does not
7 contain the last section that the other one contained which
8 was, I believe, a testimony of a Dr. Leaning, if I'm correct.

9 My objection is based on the argument I made to the
10 Board earlier and the Board's prior ruling.

11 JUDGE SMITH: Mr. Traficonte.

12 MR. TRAFICONTE: Your Honor, thank you for hearing
13 this again. We're going to be very brief, I expect to be no
14 longer than 10 minutes. And I'd like to focus my remarks on
15 the differences between or the change that we have made in this
16 testimony, in the first instance. And then do two things:
17 explain why we're offering it again with that redacted or
18 deleted portion; why we're offering it again in the context of
19 what we take to be the evolution of FEMA's position in this
20 proceeding with regard to the beach population.

21 First off, Mr. Dignan is right, this is the same
22 testimony except that we've deleted the portion of the
23 testimony that deals -- that represented the testimony of Dr.
24 Leaning on the health effects or the health consequences of the
25 doses that were modeled for a range of accidents at Seabrook;

1 we've deleted that portion of the testimony.

2 However, we believe that the portion remaining which
3 essentially is now a site specific analysis of the dose
4 consequences for a range of accidents is and should be admitted
5 to rebut the aspect of the FEMA testimony dated March 14, 1988.
6 That portion of the FEMA testimony that is set forth at page 7
7 through 11. I'm not sure if Your Honors have a copy of that
8 before you, but that portion of the FEMA testimony is entitled,
9 "Technical appropriateness Analysis."

10 And we would offer this -- we actually renew our
11 offer of this testimony as rebuttal to those pages and only
12 those pages.

13 I'm obviously not going to rehash or try to put a new
14 light on arguments we've already made; I want to focus on what
15 I believe is a new development, if you will, that post dates
16 the November 16 ruling by this Board. And I will be brief.

17 FEMA in response to the ruling of this Board in
18 November, as we have discovered in depositions of various FEMA
19 personnel, at least if FEMA is -- if the factual
20 representations by FEMA are to be credited, so let me say that
21 as an initial point.

22 If the factual representations by FEMA personnel are
23 to be credited, FEMA went away from the November 16 ruling of
24 this Board and began to reassess its position on the beach
25 population. It took away from your November 16 ruling a very

1 important lesson which was that, it was no longer relevant to
2 consider dose consequences that would impact on the relevant
3 populations in the beach areas. It was no longer necessary,
4 and I'll go one step further, it was no longer permitted for
5 FEMA to look at those dose consequences in reaching a
6 determination of whether the plan for New Hampshire met the
7 reasonable assurance standard.

8 Implicit in that, I believe and I'm sure my brother
9 Flynn is going to correct me if I'm wrong, implicit in that is
10 a statement that FEMA's prior position, position that it had
11 initially stated in response to interrogatories in June of '87
12 and then reiterated in its testimony that was prefiled in
13 September of '87, implicit in that is a FEMA judgment that its
14 position at that time was based on some assessment of the level
15 of risk expressed, perhaps, maybe not overtly, but the level of
16 risk in dose consequences to the beach population in the New
17 Hampshire portion of the EPZ.

18 Then this Board made its ruling excluding our proffer
19 of quantitative dose consequence analysis for the reasons we're
20 quite familiar with.

21 And as I say, we have discovered through depositions
22 that FEMA has gone back to the drawing board, its reconsidered
23 on a technical -- on technical grounds the basis for its June
24 and September positions, and in a series of new pleadings,
25 first in January 25 of this year and then in March -- on March

1 14 of this year it has essentially changed positions.

2 And we would contend that its change position,

3 interestingly enough, in major part due to this Board's ruling
4 of November 1987.

5 JUDGE SMITH: Well, they say that, don't they?

6 MR. TRAFICONTE: They do.

7 JUDGE SMITH: Well, I don't know about the major, but
8 in significant part.

9 MR. TRAFICONTE: In significant part.

10 They now have reached a new position. They now
11 believe that no sheltering is necessary, the applicant need not
12 show that sheltering is a viable alternative for there to be a
13 finding of reasonable assurance.

14 Their defense of their new position, which is set
15 forth on pages 7 through 11 in their March 14 submittal, their
16 defense of their new position, however we believe is again a
17 dose consequence analysis. Implicitly a dose consequence
18 analysis.

19 And it is based on, instead of a specific analysis of
20 a radiation doses that will reach the beach population at
21 Seabrook, it's based on a generic view across the spectrum of
22 nuclear sites in the United States of the appropriateness of an
23 evacuation only protective action recommendation for those
24 serious fast-paced core melt accidents that are most relevant
25 to this proceeding.

1 In short, they started with something like a site-
2 specific analysis of risk. They learned from this Board's
3 opinion in November, rightly or wrongly, that they were not to
4 assess dose consequences in reaching a determination as an
5 agency on the appropriateness or the adequacy of the plan.

6 They've now come back and said, fine, we hereby as an
7 agency determine that even without sheltering the plan looks
8 adequate to us. But to defend that position they're now
9 purporting, we believe, or they're now attempting to defend
10 that position with a new technical apparatus that instead of
11 looking at the site-specific characteristics of Seabrook, of
12 the Seabrook plant, instead paints a very broad brush across
13 all of the reactor sites across the country.

14 JUDGE SMITH: You got this from their March 15th
15 response?

16 MR. TRAFICONTE: I believe it's a combination, Your
17 Honor, of the March 14th or 15th analysis on page 7 through 11
18 as well as the depositions that the Commonwealth has taken of
19 the witnesses that are going to defend that testimony.

20 JUDGE SMITH: The April 15th response to
21 interrogatories.

22 MR. TRAFICONTE: And the April 15th response to
23 interrogatories.

24 Now, the Commonwealth is now in a position of
25 proffering again a site-specific analysis, not because we want

1 to reargue the merits of your November 16 ruling, but because
2 we feel we're in a position where we are obligated to rebut a
3 presumption that will attach to a technical analysis of risk
4 that is no longer site-specific but is now generic pulled from
5 a technical document called "NUREG-1210." And we believe is
6 absolutely inappropriate to be used for the analysis and
7 evaluation of any planning for the Seabrook site.

8 So we've come full circle. I remember arguing before
9 you back in October that we were offering, and it was never a
10 major theme of our argument because we thought it was directly
11 relevant at the time, but one of our themes was that we were
12 offering our Sholly-Beyea in support of the FEMA -- of the then
13 FEMA position.

14 We are now offering our reduced Sholly-Beyea,
15 essentially, to preserve our right to attack the new FEMA
16 position which in its technical portion, we believe, is simply
17 a generic statement. That based on generic dose consequence
18 analyses appropriate for sites across the country, it is always
19 appropriate to order evacuation for the populations within the
20 three-mile ring. And not only is it appropriate, that isn't
21 the key, not only is it always appropriate, but that it is all
22 that is necessary. That an appropriate plan or an adequate
23 plan would always have and only have the order to evacuate
24 being given to the populations within the three-mile ring.
25 That's the lesson that they have pulled -- that FEMA has pulled

1 from NUREG-1210. It's set forth in their testimony. They have
2 a technical witness who defends that position. But it is
3 critical to understand, and we believe we'll show this, and our
4 discovery has already uncovered this, that the position is
5 totally generic.

6 1210's lessons are generic. FEMA's new technical
7 analysis is generic. That's what one should do and what an
8 adequate plan would have for sites across the country. Fine.

9 We now want to be able to put in evidence that says
10 whatever one should have or whatever an adequate plan would be
11 for a generic plan.

12 In light of the large number of people within the
13 three-mile ring, and just as a footnote, 1210 indicates that
14 the average number of people within three-miles of a reactor in
15 the United States is 300 people. That's what the planner is
16 facing on average across the country. There are 300 people
17 within the three-mile ring.

18 We believe, from a technical point of view, that
19 whatever recommendations the NRC or FEMA would have a plan to
20 recommend for 300 people within three-miles are totally
21 inappropriate for the Seabrook site where the population within
22 three-miles is far, far greater.

23 JUDGE SMITH: Why?

24 MR. TRAFICONTE: One major reason comes to mind. For
25 fast-breaking accidents, 1210 makes clear that because you can

1 assume or one should assume very low populations within three-
2 miles, evacuation as a protective action recommendation is
3 going to be timely. That's to say, those people will be
4 removed either before the plume reaches the three-mile boundary
5 or very soon in the same -- essentially in the same time frame.

6 And as it was discussed this morning, even if the
7 planning basis includes an accident of a half hour warning
8 time, if the average population up to the three-mile ring is
9 only 300 people, then the logistics of an evacuation of that
10 kind of population still would be vastly superior, the dose
11 savings would be vastly superior for those people than any
12 sheltering alternative.

13 Those are the -- first of all, it's common sense.
14 Secondly, it's the lessons of NUREG 1210. Thirdly, it's, in my
15 opinion, directly reflective of the average population and
16 demographic picture for the generic site in the United States.
17 And that's FEMA's position. I'm sure my brother is not going
18 to refute that. That's the position they now take in this
19 proceeding.

20 Our position is basically that that's irrelevant.
21 That we don't have the generic site, far from it. We have a
22 site where the population in the summertime within the three-
23 mile ring is, if not the highest in the country it's certainly
24 very close to the highest.

25 The same technical -- well, I don't want to stray too

1 far, I don't want to get into the merits, so to speak, of why
2 we believe the FEMA technical position is not appropriate;
3 we'll be given ample time to do that.

4 The focus of this argument is simply that we be
5 permitted to -- that you admit and that we be permitted to
6 proffer evidence that is now site-specific that will rebut the
7 new position or the new technical support that FEMA is giving
8 to its new position that is essentially just a generic analysis
9 that has nothing to do with the Seabrook site.

et/22 10 (Continued on next page.)

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1 (Board confers.)

2 JUDGE SMITH: Mr. Flynn, do you wish to be heard?

3 MR. FLYNN: Yes, I do, Your Honor.

4 I perceive a certain irony in the fact that the FEMA
5 testimony is now being cited as a basis for another attempt to
6 introduce the Sholly testimony. In fact, as Mr. Traficonte has
7 pointed out, it was in significant part this Board's ruling on
8 the exclusion of the Sholly testimony which led us to the point
9 which we now hold.

10 What FEMA took from the ruling on November 16th,
11 which was a confirmation of principles that had been expressed
12 to us by the NRC and which are implicit in the rulings which
13 the Board has cited in that opinion.

14 Number one, sheltering is not required for every
15 segment of the EPZ population under all circumstances. And a
16 corollary of that, which was not developed in the opinion but
17 which follows from it, is that there is no minimum evacuation
18 time which must be met. There is no minimum shelter protection
19 factor which must be provided by the sheltering which is
20 available.

21 The second point which FEMA took away from the ruling
22 was that it is inappropriate for FEMA to be considering dose
23 consequences of a particular accident or a range of accidents.

24 If I understand Mr. Traficonte's argument, what he is
25 saying is that because of the particular circumstances of this

1 site, the plant should not be licensed unless there is either
2 minimally acceptable sheltering, or a reasonable evacuation
3 time which is to say some minimum evacuation time.

4 JUDGE SMITH: Now, I don't -- that's not what I heard
5 him say this time. I hear him say that the decision between
6 evacuation and sheltering cannot be made based upon a generic
7 evaluation, and you require a site-specific one.

8 Is that --

9 MR. TRAFICONTE: Yes, the generic analysis that
10 FEMA's proffered is not applicable to the Seabrook site because
11 of the demographics.

12 JUDGE SMITH: Yes, you're not arguing this time that
13 a specific objective of dose savings has to be achieved by
14 evacuation or by sheltering, but that the decision between the
15 two protective actions cannot be made unless dose consequences
16 are analyzed.

17 MR. FLYNN: If I may follow up on that.

18 JUDGE SMITH: Or I don't think -- yes.

19 MR. TRAFICONTE: I'm mulling, I'm mulling over what
20 you said.

21 JUDGE SMITH: Well, that's what I got from your --
22 huh? Well, I guess --

23 MR. TRAFICONTE: Let me put it another way.

24 JUDGE SMITH: No, I don't want to put words in
25 your --

1 MR. TRAFICONTE: I don't disagree with that.

2 JUDGE SMITH: Huh?

3 MR. TRAFICONTE: I don't disagree with that. Let me
4 just make it -- if I can put it in one sentence.

5 FEMA's position is sheltering is not necessary to an
6 adequate plan. The support for that pos -- so, therefore, this
7 plan is now adequate.

8 We used to be concerned that there was no sheltering.

9 In fact, we were about to defend the position that it's
10 inadequate because there is no sheltering. Now FEMA is in here
11 saying, we're not worried about that anymore.

12 As technical support, they cite NUREG-1210. If you
13 read NUREG-1210, it says you would never, in the very fast
14 paced serious accident, you would never sit -- the
15 decisionmaker would never sit there in the control room or in
16 the EOC and say, well, should I order evacuation, should I
17 order sheltering.

18 You would always order evacuation. That's what 1210
19 says.

20 JUDGE SMITH: Why?

21 MR. TRAFICONTE: Why? Because 1210 goes on to show,
22 Footnote - by using dose consequence analysis, by the way, it
23 goes on to show that because the average plant has only 300
24 people within the three-mile ring, that you could always effect
25 a timely evacuation, the dose savings from which would always

1 be vastly superior over any sheltering alternative that the
2 site might have.

3 JUDGE SMITH: Yes, right. Okay, so it --

4 MR. TRAFICONTE: That's my support. We say that --

5 JUDGE SMITH: It's an analysis which is used to
6 determine the -- to chose between evacuation and sheltering.

7 MR. TRAFICONTE: And sheltering. And that analysis,
8 we say, that they have now drawn from 1210 is totally
9 inappropriate to this site.

10 JUDGE SMITH: And what is appropriate to this site?

11 The site-specific dose consequence analysis.

12 MR. TRAFICONTE: Well, it is necessary to look at
13 that evidence to see why one is not -- it is not sound policy
14 to use a generic analysis of decisionmaking to find their plan
15 adequate; that's right, that's right. You need dose
16 consequence analysis to make the judgment that generic
17 decisionmaking policy is inappropriate for the Seabrook site.

18 How else could you form that judgment but from dose
19 consequence analysis?

20 MR. FLYNN: Your Honor, I have --

21 JUDGE SMITH: Mr. Flynn.

22 MR. FLYNN: -- a response to the points which Mr.
23 Traficonte has made. I don't know if I will have time to make
24 them all before you have to call the Appeals Board.

25 But the one thing I want to stress is that there is a

1 piece missing from what Mr. Traficonte said, and that is, it is
2 their testimony, their prefiled testimony goes to show that the
3 stock of sheltering which is available at this site is in fact
4 not adequate.

5 So they will then argue in the proposed findings, or
6 the close of the evidence, that because there is no adequate
7 pool of sheltering, and because the evacuation times are beyond
8 what they consider reasonable, that therefore the plan isn't
9 adequate and the nuclear power plant, Seabrook plant should not
10 be licensed, and that gets you right back to the point I was
11 making before. And that is, it amounts to a requirement that
12 there be sheltering, or that there be a minimum evacuation
13 time.

14 JUDGE SMITH: Do you agree?

15 MR. TRAFICONTE: Well, I agree to the extent -- in
16 substance. I disagree with the form. It's as if Mr. Flynn has
17 discovered a sinister purpose; i.e., we are opposed to
18 licensing of this plant.

19 We are opposed to the licensing of this plant. We
20 believe that as a matter of law --

21 (Laughter.)

22 MR. DIGNAN: Is that a moving target?

23 (Laughter.)

24 MR. TRAFICONTE: Was that on the record?

25 (Laughter.)

1 JUDGE SMITH: Would you put that in the form of a
2 motion and --

3 (Laughter.)

4 MR. TRAFICONTE: And I have to say I don't disagree
5 with Mr. Flynn's characterization of the legal support that we
6 believe we have for that opposition.

7 One, there isn't adequate sheltering.

8 Two, that would be okay at the generic site according
9 to 1210 and the NRC's most recent thinking on this question.
10 At the generic site across the country, if you had no
11 sheltering at all, it would be okay because for the serious
12 accidents that we're all concerned with that are fast paced for
13 which you couldn't close the beaches in a timely manner. those

14 For those accidents that are the core of the issue
15 here, at the generic site you only need evacuation because it
16 would be timely.

17 Why would it be timely? There are only 300 people
18 within the three-mile ring.

19 We say --

20 JUDGE SMITH: Coming back -- keep coming back to
21 where Mr. Flynn says you are, and that's where we've ruled, and
22 that is there is no standard for timeliness of evacuation that
23 we have yet to recognize. If there is, it is only vis-a-vis
24 sheltering, and that is, is evacuation a better choice compared
25 to sheltering.

1 MR. TRAFICONTE: On those grounds alone, Your Honor,
2 our testimony should come in. On those grounds alone, it
3 should come in, because they are now defending their position
4 that the plan is adequate by arguing that generically across
5 the country you would normally only use an evacuation PAR. And
6 we're coming in saying, well, that can't be -- that cannot be
7 an adequate analysis for the Seabrook site, because the
8 premises of the generic recommendation are completely different
9 from the evacuation times that you have -- you have at
10 Seabrook.

11 We are in a little bit of a vacuum, of course,
12 because we don't have the FEMA position in front of us yet, and
13 I know that the Appeal Board had indicated that we're -- at
14 least unless things change soon -- we're not to address that.

15 We are having this as a preliminary motion in limine
16 because we'd like to get this evidence admitted. We'd like to
17 have it as a part of our case rebutting the FEMA position. But
18 suffice it to say that I am convinced that the full range of
19 the FEMA position invites just this kind of site-specific
20 rebuttal. We're bumping up against the 1:30 here.

21 MR. FLYNN: Shall I go on now or -- it will take me
22 more than five minutes to complete what I have to say.

23 JUDGE SMITH: Well, a good breaking point. I think
24 the preference is that we don't call before 1:30. I don't
25 think anything is going to happen on the stroke of 1:30 that

1 will hurt us.

2 Go ahead.

3 MR. FLYNN: The next point I want to address is why
4 FEMA understands that a dose consequence analysis is
5 inappropriate.

6 First, planning is generic. It should be generic.
7 But that I mean not that one plan fits all. What I mean is
8 that the plan should address many different possible accidents,
9 not a single possible accident or a major range of possible
10 accidents.

11 If you were to address a single accident or a narrow
12 range, the consequence of that would be that you would end up
13 not planning for the others, and that is clearly inappropriate.

14 The other problem is that to do planning in detail
15 for a particular type of accident, you would have to devise an
16 algorithm or a mathematical formula that took into account all
17 the things that might happen. That's a monumental task all by
18 itself.

19 But even if you could do that, the uncertainties
20 involved, the number of uncertainties, the magnitude of the
21 uncertainties is such that the result that you got would not be
22 reliable. So that generic planning, generic in the sense of
23 planning for a broad range of accidents, is not only
24 appropriate, it is necessary. It is the best that is humanly
25 possible to do.

1 The next point I want to go on to is that I take
2 exception to the characterization of the use to which FEMA has
3 put NUREG-1210. What we relied on it for was two points: That
4 for close-in sites, that is, sites within two miles of the
5 plant, evacuation is the preferred action, preferred protective
6 action.

7 The second point is that to develop a protection
8 action recommendation before a release has occurred, according
9 to 1210, that should be based on plant conditions, not
10 projected doses. And the reason for it is simply that at the
11 site area emergency alert level, or even an unusual event, you
12 don't have a release, so it is virtually impossible to project
13 what the dose would be. So the more reliable information is
14 plant condition. That was the second point for which we relied
15 on 1210.

16 I would also like to point out that 1210 is not a
17 technical document. It is a training document. It does not
18 have a technical basis. We are not using it to support a
19 technical argument that applies to plants across the country,
20 not a technical argument. It is used to support what seems to
21 us a common sense conclusion that, because of the limitations I
22 have described, a precautionary action of evacuation makes
23 sense.

24 The final point that I'd like to make is that if it
25 is the ruling of this Board that a site-specific analysis,

1 whether it's dose consequences analysis or a comparison of the
2 relative merits of sheltering versus evacuation, if that should
3 be site-specific then we have seriously misunderstood what the
4 Board intended, and it limits the value of the testimony we
5 have prepared. That suggests that it either should be
6 disregarded or that we should go back and do it over another
7 time.

8 The testimony that we have prefiled, that we have
9 submitted to this Board, rests on the assumptions that I stated
10 at the beginning of my argument. One, that sheltering is not
11 required; and the corollaries, that there is no minimum shelter
12 protection factor; that there is no minimum evacuation time;
13 and secondly, that it is not appropriate to measure the
14 effectiveness of planning against dose consequence analysis.

15 JUDGE SMITH: Let's take a break. We will resume in
16 10 minutes.

17 (Whereupon, a recess was taken.)

18 JUDGE SMITH: The Appeal Board informed us that they
19 have denied the motion for directed certification and limited
20 the partial suspension. I will read the message.

21 It is from Secretary of the Appeal Board who is
22 reading a message from Mr. Cho, purporting to be a summary and
23 information to us, the Licensing Board.

24 "The Appeal Board entered its order today in which it
25 denied Intervenors' motion for directed certification. The

1 Board also limited the partial suspension effective
2 immediately. Copies of the order are being mailed to all
3 parties. Since all the parties are in hearing, you may wish to
4 inform parties orally of the Board's ruling."

5 And I don't know if it would be helpful, maybe we can
6 arrange to have the order faxed down here.

7 Does anybody have an office for the receipt of fax?

8 MR. BISBEE: Sure.

9 JUDGE SMITH: Do you?

10 MR. BISBEE: We can go next door, and they have.

11 JUDGE SMITH: Okay. Let me ask my secretary -- call
12 my secretary at the noon break and ask her to fax it to you,
13 because it might give us guidance.

14 But this means that your arguments are timely and
15 that -- perhaps, and that we will schedule early arguments and
16 rulings on the Board's handling of the problem we see existing
17 remaining in the subject matter of the motion for directed
18 certification.

19 Okay, Mr. Flynn.

20 MR. FLYNN: Your Honor, I'd like to add something to
21 the argument that I just made. During the break it was pointed
22 out to me that I represented we relied on NUREG-1210 for a
23 second point, and that is that evacuation is the preferred
24 protective action for areas close in.

25 It was pointed out to me that that is not found in

1 NUREG-1210, and I accept that that's the case.

2 JUDGE SMITH: Okay. Mr. Turk.

3 MR. TURK: Thank you, Your Honor.

4 Let me direct myself first to the issue of what
5 NUREG-1210 is and what it says, because I think there is a
6 little confusion on that.

7 NUREG-1210 is a -- and I don't have a copy with me; I
8 have a copy of one volume, Volume 4 which is the volume to
9 which Mr. Traficante referred to when he used those 300 persons
10 within two to three miles number.

11 NUREG-1210 is a training manual. It's used by the
12 NRC staff, and I'm not sure to what extent, possibly by FEMA as
13 well, in helping to train emergency responders throughout the
14 country in dealing with a nuclear accident.

15 What NUREG-1210 is it says that it's very -- it comes
16 to the conclusion that it's very difficult to predict in
17 advance the source term and the nature of the release that may
18 occur in a nuclear accident. And it therefore takes the view
19 that it's better to start an evacuation of areas close in to a
20 nuclear plant before you even start projecting doses. You do
21 it simply on the basis of your knowledge of the status of plant
22 conditions, and you don't wait to go through a dose projection
23 and a determination through a fault tree as to whether people
24 will be better protected through evacuation, or conversely,
25 better protected through sheltering.

1 Now with that in mind, I want to refer also to Mr.
2 Traficonte's comment about the fact that 300 persons are
3 presumed to be living within the two to three-mile ring of most
4 nuclear plants.

5 As I heard Mr. Traficonte state it, it's that
6 assumption that was relied upon by the developers of NUREG
7 1210 in their recommendation that evacuation be recommended
8 early. And in fact, that's not correct, and I would like to
9 read from Page 19 of Volume 4 of NUREG-1210. And there is a
10 long paragraph here, and to be fair, I'd like to read the whole
11 paragraph just so the Board has this in context when they hear
12 arguments about NUREG-1210.

13 The discussion here discusses a concern that there
14 might be an entrapment problem.

15 JUDGE LINENBERGER: Could you identify volume and
16 page number where you are going to read from, please, sir?

17 MR. TURK: Yes. It's NUREG-1210, Volume 4.
18 incidentally, this has a publication date of February 1987.
19 Volume 4, Page 19, and the concern here addresses the potential
20 that there might be a severe entrapment problem in a particular
21 condition, and there is a paragraph that reads as follows:

22 "However, severe entrapment problems are expected to
23 be rare at most reactor sites in the United States, and
24 especially rare in conjunction with a general emergency. At
25 most U.S. nuclear reactor sites, fewer than 300 people live

1 within the first two to three miles around the plant. Within
2 this distance, there are few facilities such as hospitals that
3 would require special attention in the event of an evacuation
4 order. At a few reactor sites, however, all these conditions
5 are not met. The emergency planner and responder must
6 recognize that evacuation would be more difficult at these
7 latter sites, and contingency plans must be prepared and
8 decisions made accordingly in the planning process."

9 And I would like to emphasize the next portion where
10 the paragraph reads:

11 "It must always be remembered, though, that, one, for
12 all sites," and "all" there is emphasized in the text, "for all
13 sites early evacuation of nearby areas would be most
14 beneficial; and, two, for the most severe accidents, early
15 evacuation would be the only protective action available to
16 achieve basic radiation protection objectives near the plant."

17 And my point about this paragraph is that even though
18 the drafters of this document discuss the fact that there may
19 be fewer than 300 people living within two to three miles of
20 most nuclear plants, they recognize that there are sites where
21 the density is higher, and stated that for every site in the
22 country, including those where there is a high density,
23 evacuation is still the preferred response.

24 The second point is, this is not a planning document.
25 This is a training manual for responders. And this paragraph

1 makes it clear that planners must take into consideration that
2 there may be a need to do something other than evacuation. And
3 therefore planners should be considering other options other
4 than evacuation alone.

5 However, in terms of a response, the thrust of this
6 entire document is that you base -- or the NRC staff recommends
7 that a responder base his actions upon knowledge of plant
8 conditions rather than waiting to go through a dose projection.

9 And one of the basic reasons for that, by the way --
10 it's not found in this paragraph -- but one of the basic
11 reasons for that recommendation is that it's very difficult to
12 know in advance the type of source term, the type of release,
13 the duration of the release, the amount of the dose. It's
14 really only after the dose has been incurred and the release
15 has occurred that you can really predict what the consequence
16 to the public is.

17 Now, I want to turn from 1210 to the motion pending
18 before the Board.

19 I don't see that the Sholly testimony, when I refer
20 to it as the Sholly testimony, I'm including all its
21 components, including the sponsors of the different pieces
22 within that testimony, I don't see that it's relevant to an
23 issue before the Board. That testimony continues to try to
24 address particular accident sequences and the severity and
25 consequences of those sequences.

1 I don't think that that is something that the Board
2 should be going into for the same reasons as ruled upon by the
3 Board previously, and that is that you don't look at specific
4 accidents when you are doing -- when you evaluate the adequacy
5 of an emergency plan, and I don't want to go through all the
6 arguments that we made previously. I don't think I could
7 restate them as well as I had previously, in any event. But I
8 don't think anything has changed here.

9 If Mr. Traficonte's basis for the urging of his
10 admission of his testimony is that FEMA's proposed testimony
11 may somehow tie in dose consequences, well, the Board has not
12 yet had occasion to rule upon FEMA's testimony, and it may
13 still conclude not to admit portions of that testimony, not
14 that I'm saying you shouldn't.

15 But the point I want to make about that is specific
16 accidents and consequences of those accidents are not what we
17 should be litigating in this proceeding. I don't think FEMA's
18 testimony tries to do that, so I won't urge that any part of
19 FEMA's testimony be excluded. And I don't think that the
20 simple reference to NUREG-1210's recommendations in any way
21 support the admission of litigation of specific accidents and
22 accident consequences.

23 There is one other point that I want to address, and
24 that is, I believe I heard Mr. Traficonte say that FEMA no
25 longer considers it necessary to address the reasonable

1 assurance standard.

2 I don't read FEMA's testimony that way, and I think
3 in cross-examination of FEMA's witnesses if the question is put
4 to them as to whether or not reasonable assurance could be
5 found if the sole issue remaining for consideration was the
6 beach issue, I think they would conclude that, yes, there would
7 be reasonable assurance, and that concludes my remarks.

8 JUDGE SMITH: Anyone else?

9 MR. DIGNAN: Well, if I could, it was my motion and I
10 feel a proprietary feeling towards it, brilliantly has it's
11 been defended by my colleagues from the government.

12 Your Honor, the only argument I would like to make to
13 you is quite mundane after the global argument you have heard.
14 If I heard my learned friend from the Commonwealth, the whole
15 thrust of why he thinks it's now relevant is because the
16 defense of FEMA's -- what he characterized as new position --
17 is a dose consequence analysis based on a generic view across
18 the spectrum of nuclear sites across the United States.

19 Now I confess that reviewing Pages 7 through 11 of
20 the testimony that point passed me. I don't think there is
21 anything in there from which one can legitimately derive that
22 as the basis of the FEMA testimony.

23 More importantly, there is only but one reference in
24 all of FEMA's testimony that I could find, at least, to
25 NUREG-1210. And for the sake of completeness, does the Board

1 have copies of the FEMA testimony? I thought you might not. I
2 would like to read briefly to you, and this is at Pages 8 and
3 9.

4 JUDGE SMITH: Well, we can get a copy.

5 MR. DIGNAN: All right. In there it is stated, "It
6 is FEMA's understand of NRC's current guidance and internal
7 response procedures, as stated in NUREG-1210, that initial
8 protective action decisions for areas near the site should be
9 based on plant status without inclusion of calculations of
10 projected doses unless a release of radioactive material is
11 already under way."

12 That's the only time they refer to 1210. And the
13 point that I'd like to make is that all they are saying is that
14 protective action decisions should be based on plant status.
15 That is, if the operators are telling you that the plant is
16 degrading, or that this safety system is lost, or this one is
17 lost and the other train is degrading, and not on anything to
18 do with dose projections unless the release has occurred.

19 And the reason given in 1210 for this, which is
20 really common sense, is because unless the release has
21 commenced there is no basis on which you can make a good dose
22 projection because you don't know what the release is composed
23 of, you don't know what kind of a situation it is or anything
24 else. And that's the only minor point that I find in this
25 testimony which relies on 1210 in any way.

1 Now, I just fail to see that minor reliance in that
2 one sentence turns all of a sudden all of the Sholly testimony
3 into admissible testimony. and I would remind the Board that
4 wholly apart from anything that FEMA has done here, or anything
5 the Commonwealth wishes to argues, you are still under the
6 strictures of the Commission statements, most recently in the
7 most recent change in the emergency planning rule where the
8 Commission went right down the line and flat said it was not
9 interested in having the dose savings of one site compared to
10 another.

11 And whether or not we're getting in the minimum dose
12 savings with the Commonwealth's attempt here, we sure are, as I
13 heard that argument, trying to get into a comparison between
14 sites or the comparison of the Seabrook site to a generic site.
15 And the Commission has flat ruled that that is not within the
16 scope of evidence that is to be taken in an emergency planning
17 hearing as I read the latest rulemaking pronouncement, and
18 that's all I wish to add.

19 JUDGE SMITH: Ms. Weiss.

20 MS. WEISS: Thank you, Mr. Chairman.

21 I'd like to make a slightly different point. Of
22 course I associate myself with the remarks Mr. Traficonte, and
23 I think they were correct.

24 I believe that even though there are no preset
25 minimum dose reductions, no preset minimum ETEs, that the whole

1 purpose of emergency planning is to achieve some dose
2 reduction. We heard the witnesses say that over and over again
3 today.

4 We wish to demonstrate, through the Sholly-Beyea
5 testimony, that there are accidents clearly within the planning
6 basis, within the required planning basis as to which there
7 would not be any significant dose reduction resulting from
8 implementation of the New Hampshire plan.

9 JUDGE SMITH: That argument was made very thoroughly
10 by Mr. Traiconte in the first instance, and it didn't prevail.

11 MS. WEISS: It's certainly an argument that I intend
12 to make at every opportunity.

13 I heard Mr. Flynn state that he believes it's not
14 appropriate to have some measures that are different site from
15 sites, some emergency planning measures that are different site
16 from site. I'm not sure exactly how he got there. He's wrong.

17 Of course you do have provisions that are different
18 site from site. The so-called precautionary measures that we
19 discussed this morning, early beach closing, access control,
20 are different at Seabrook than at other sites. Our position is
21 that they don't achieve enough. That for the fast-moving
22 accidents that are within the required planning basis, early
23 beach closing and access control don't achieve any additional
24 dose reduction. And I think the Sholly-Beyea testimony would
25 go to establish that.

1 With respect to NUREG-1210, I think my --

2 JUDGE SMITH: Wait a minute. Would you -- go ahead.

3 JUDGE LINENBERGER: Well, forgive the interruption
4 here, but before we stray too far I want to make sure I
5 understood what I think I understood you say a few minutes
6 earlier.

7 That in the case of certain sites, certain measures
8 don't achieve enough.

9 MS. WEISS: No, what I said was -- that's not what I
10 said.

11 JUDGE LINENBERGER: All right. Now, please set me
12 straight because --

13 MS. WEISS: What I said was it is not accurate to say
14 that one cannot or should not have measures, protective
15 measures that are different from site to site, which was
16 strictly in response to Mr. Flynn's argument that there is
17 something wrong with the basic proposition that one site might
18 require more or different emergency actions because of site-
19 specific factors.

20 And I said that it's clearly wrong as illustrated by
21 the fact that we do have special protective actions at
22 Seabrook. Our position is that they do not go far enough.
23 That's our position, that they don't achieve dose reductions.

24 The purpose they're in there is to achieve dose
25 reductions, and they don't for the fast-moving accident.

1 JUDGE SMITH: Dose reductions from what?

2 MS. WEISS: For people, for the fast-moving accident.

3 JUDGE SMITH: Dose reductions from what action or --

4 MS. WEISS: As compared with no --

5 JUDGE SMITH: No action.

6 MS. WEISS: -- precaution, no early -- that the early
7 precautionary measures themselves achieve no additional
8 protective action over merely ordering an evacuation at the
9 normal time that any other plant would, and that's obviously
10 true for the fast-moving accidents. You can't get people off
11 the beach or out of the three-mile ring before the one-half to
12 two hours, which is the planning basis. That's the time in
13 which you must assume that the plume is released, and you can't
14 get people off, so they are not -- there is no dose that's
15 obviated. They might as well be on the beach because they are
16 still within the three-mile ring.

17 The purpose those measures are there is to try and
18 achieve additional dose reductions, and they don't. It's a
19 further point, a point I was making first.

20 JUDGE SMITH: I'm still confused as to what actions
21 are you alluding to do not achieve --

22 MS. WEISS: Early beach closure and access control,
23 the so-called precautionary measures.

24 JUDGE SMITH: Well, certainly access control, you've
25 got to concede that, don't you?

1 MS. WEISS: Early beach -- no, I don't. It doesn't
2 do anything for the people on the beach.

3 JUDGE SMITH: Go ahead.

4 MS. WEISS: I think there's been an effort by my
5 colleagues on the other side --

6 JUDGE SMITH: Now let me go back. As I understand,
7 the precautionary measures are measures that are to be taken,
8 for example, at the alert. And you're saying that those do not
9 have the capability of achieving additional dose savings?

10 MS. WEISS: For accidents, the fast-moving accidents
11 which are clearly within the spectrum of accidents that are
12 within the planning basis. You bypass the alert stage
13 altogether for those accidents.

14 JUDGE SMITH: And then where do we go?

15 MS. WEISS: Then you order people to evacuate, but
16 you have not achieved any additional protection from early
17 beach closing.

18 And the initial argument --

19 JUDGE SMITH: How about the other accidents assuming
20 what you say is correct?

21 MS. WEISS: Oh, for slow-moving accidents, one can
22 envision achieving additional dose savings by moving people out
23 early, but not for the fast-moving accidents.

24 JUDGE SMITH: Would that not be true then that
25 precautionary measures at say the alert stage would be

1 appropriate?

2 MS. WEISS: For slow-moving accidents. This argument
3 is not about accidents which take a long time to develop. My
4 argument --

5 JUDGE SMITH: Let's assume what you say is correct.

6 I don't know if it is, but let's say that it is correct that in
7 a fast-moving, severe accident that precautionary measurements
8 at the alert stage would not achieve dose reduction.

9 Then where do we come out as a matter of law?

10 MS. WEISS: Well, it's our point further that
11 evacuation would achieve no significant dose reduction for that
12 accident, and that sheltering would achieve no significant dose
13 reduction. We, therefore, will argue to this Board in our
14 findings, and to the Appeal Board, and to anybody who will
15 listen that this emergency plan is not adequate.

16 JUDGE SMITH: That's the very sense of the Sholly-
17 Beyea testimony and arguments that was argued before, and I
18 don't see that you are attaching it to anything different this
19 time.

20 MS. WEISS: Well, we've removed any discussion of the
21 health effects --

22 JUDGE SMITH: All right.

23 MS. WEISS: -- of those accidents. And I want to say
24 that I'm making an argument in addition to Mr. Traficante's. I
25 think he's made a good distinction, but I wouldn't want the

1 opportunity to pass, now that I've got an opportunity to make
2 this argument on the record, to show why I think it's
3 preposterous to argue that we are going to analyze the
4 acceptability of this emergency plan without ever looking at
5 what the actual effects would be; whether there would be any
6 dose reductions at all. I think that's the purport of the
7 ruling, and I think it's wrong.

E24

8 (Continued on next page.)

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1 MR. DIGNAN: Your Honor, if I --

2 MS. WEISS: Mr. Dignan, I have one more point to
3 make, I'm sorry.

4 MR. DIGNAN: I guess I'm facing two people who are
5 offering testimony instead of just my friend Traficante; I
6 apologize.

7 MS. WEISS: I think my colleagues have attempted to
8 wrap too much around NUREG-1210. It is certainly true Mr.
9 Turk's description of the limitations of NUREG-1210 are
10 certainly accurate.

11 The evidence will show, and the depositions have
12 clearly shown, however, that the technical appropriate analysis
13 on pages 7 to 11 of the FEMA testimony is based, if not wholly,
14 very close on that witness' analysis of the implications of
15 that document. But whether or not he has properly analyzed
16 NUREG-1210 or whether or not he has properly used it.

17 It is clear that FEMA has concluded, based on a
18 generic analysis, that evacuation is the best strategy for the
19 close-in populations because it achieves the most dose
20 reductions. And we wish to demonstrate that there is no
21 significant dose reduction.

22 JUDGE SMITH: Based on plant conditions.

23 MS. WEISS: They -- FEMA has reached its conclusion
24 based on a generic analysis. Whether or not they have
25 misinterpreted NUREG-1210, misused NUREG-1210; we'll not argue

1 that they have. But there is no doubt that they have, based on
2 a generic analysis which has nothing -- which is not at all
3 specific to Seabrook, which considers no factors specific to
4 Seabrook.

5 They have concluded on the basis of a generic
6 analysis that evacuation is always the best strategy for the
7 close-in population because it achieves the most dose
8 reductions.

9 We wish to argue by Sholly-Beyea that there is no
10 significant dose reduction associated with implementing
11 evacuation for the quickly developing accidents at the Seabrook
12 site; and we wish to do that with Sholly-Beyea.

13 JUDGE SMITH: Okay.

14 MR. DIGNAN: Your Honor, if I could reply briefly to
15 that one and therefore -- thereby give my brother Traficante a
16 wrap-up shot at me and everything.

17 You know, the first thing that strikes me about this
18 argument, which I do think is somewhat of a rerun of what was
19 argued earlier on the first time around is, when you listen to
20 it, it starts from one erroneous premise and that is, what I
21 heard NECP's counsel talk about was concern about dose
22 savings, quote, "To the people on the beach."

23 Now, what that means is, the premise of the argument
24 is you're looking at dose savings on the individualized person.
25 But the problem is that dose savings that the Commission is

1 talking about and that I understand the regulations and the
2 rules to talk about is, dose savings to the population. It is
3 the concept, the same concept as when one looks at the siting
4 criteria and the concern when you're talking the population
5 center distance is dose savings to the society at large as
6 opposed to the concern of the individual which is what the
7 concern is when you're talking low population and so on or the
8 restricted area.

9 That being the case, since that is the dose savings,
10 and the logic of the Commission's position that we aren't going
11 to compare sites or compare generic sites becomes obvious when
12 one analyzes it this way.

13 If the rule were to be that one had to demonstrate a
14 certain number of man-rems saved in a given situation for a
15 given plant.

16 One is driven to this rather absurd conclusion, were
17 a plant site is in the middle of a desert with no surrounding
18 population for 10 miles, essentially, you could not demonstrate
19 any dose savings, because there would be nobody to move. And
20 therefore, the result would be zero dose savings, deny the
21 license, but since we go down to Indian Point where you've got
22 hundreds of thousands of people right around the site and we
23 can show that a lot of dose savings would occur by an
24 evacuation or whatever scheme they have down there, license
25 that one, but deny the license to the rural site.

1 That is the inevitable end of the analysis that is
2 being pressed upon this Board repeatedly by the Commonwealth of
3 Massachusetts and by the Coalition, because as a matter of
4 logic, and that is why the Commission has said it doesn't want
5 to get into that, as a matter of logic you are driven
6 inevitably to the conclusion that if you play the bright line
7 game of calculating dose savings, the most rural site in the
8 country would fail and the country -- the site with the most
9 population surrounding it that still met the criteria would be
10 the first one to pass the test.

11 And I cannot believe that that logic would prevail in
12 any forum, never mind whether it's a Licensing Board of this
13 Commission, a Court of the Land or whatever. And that is the
14 inevitable logic of the position that's being pressed and that
15 is why the precise reason the Commission has not permitted us
16 to get into the business of trying to compare sites on dose
17 savings.

18 JUDGE SMITH: Mr. Flynn?

19 MR. FLYNN: Yes, I'd like to respond to a couple of
20 points raised by Ms. Weiss' arguments.

21 The first point is that, I think perhaps she misheard
22 or misunderstood my comment about one plan fits all. What I
23 intended to say and I think I did say was that, that is not the
24 standard. It is not our position that there should be no
25 variation from plan to plan.

1 What I intended in that portion of my argument was to
2 say that, the planning should not focus on a particular
3 accident or a particular narrow band of the spectrum of
4 accidents; and that is what I meant by planning should be
5 generic.

6 The second point that I wish to say is that, I don't
7 believe that our conclusion that evacuation is the appropriate
8 strategy for close-in areas rests on a dose consequence
9 analysis. Rather the point is that, at the alert level of
10 emergency classification or at the site area emergency level
11 there are inherent uncertainties, because there is no release
12 at those stages. And because of the inherent impossibility or
13 difficulty in making dose projections you don't know what the
14 relative component of ground shine as opposed to inhalation
15 dose will be.

16 And because of that uncertainty you do the safer
17 thing. You do the more prudent thing which is to get people
18 away so that whatever the ground shine component is you don't
19 expose them to that at the time of evacuation, having first
20 expose them to inhalation doses while they're being sheltered.
21 That was our point, pure and simple.

22 And it doesn't depend on a dose consequence analysis.
23 The important point is, you do the prudent thing because of the
24 uncertainties involved.

25 JUDGE SMITH: Mr. Traficante, did you wish to be

1 heard?

2 MR. TRAFICONTE: Yes, just very briefly in rebuttal,
3 if it is rebuttal. I can't remember whose motion this was.

4 First of all, as to Mr. Turk's selective reading of
5 1210, and I know the Board doesn't have the document in front
6 of it, so I won't read it. You heard Mr. Turk read a paragraph
7 that included the reference to the 300 people living within the
8 two to three-mile ring; and the last sentence in that paragraph
9 indeed does say that it must always be remembered that for all
10 sites early evacuation of nearby areas would be most
11 beneficial.

12 JUDGE SMITH: Under what circumstance?

13 MR. TRAFICONTE: Well, I was going to comment. On
14 the very same page that Mr. Turk had in front of him continues
15 in the next section entitled, "Sheltering," to list those
16 circumstances in which you would not order early evacuation,
17 but instead you would have prepared a sheltering option. And
18 the two important circumstances in which you would need a
19 sheltering option are, and again same page, Mr. Turk, number
20 three: "If severe entrapment problems are likely to occur if an
21 evacuation is attempted."

22 And then on to the top of page 20, number five:
23 "Where a large population density makes entrapment outside,
24 i.e., outside in the open air very likely."

25 So, we'll have more to say, obviously, and now since

1 there's no impediment to it we'll get to FEMA fairly shortly
2 and we'll have more to say about 1210, but just to clean the
3 record up, I think it will become clear that 1210 has -- makes
4 two statements. It makes the statement that a generic site
5 where there are 300 people within three-miles on a
6 predetermined basis, not on the basis of dose consequence or
7 dose analysis at the time of an emergency, but on a
8 predetermined basis at the generic site you would order
9 evacuation for the severe, fast-paced accident.

10 There are exceptions to that, however, and the
11 exceptions in which you would want to have a sheltering option
12 available include entrapment conditions that we believe are
13 identical to the conditions that would develop if an evacuation
14 ordered at Seabrook in the summer months. So that just to
15 clean the record up.

16 I don't know if the record needs to be cleaned up on
17 Mr. Dignan's rather wild and fantastic idea that if in a
18 completely rural site with no population, since you couldn't
19 show dose savings you couldn't get a license. Okay. I don't
20 think you'd need to have a plan, but maybe I'm speculating. If
21 you had no population I can't imagine what the emergency
22 planning task would be.

23 Now, to reiterate and to sum up the argument that I
24 have made as to why this testimony should be admitted now, for
25 reasons that I believe are distinguishable from the reasons

1 that I continued to hold, by the way, as to why it should have
2 been admitted in November.

3 And I'm going to just reiterate what I said. FEMA
4 believed in the summer of '87, and no doubt stretching back in
5 time for some years, that there was a severe problem with the
6 adequacy of the plan for the Seabrook site because there was no
7 meaningful sheltering option.

8 It believed, FEMA believed that without a sheltering
9 option the population was at the mercy, essentially, of the
10 effectiveness of evacuation.

11 We've had years of quibbling and fighting over how
12 long the evacuation would be. But I don't think there's any
13 disagreement that it's a long evacuation time, whatever it is,
14 or finally is determined to be, it's long. So the focus was on
15 sheltering.

16 There seemed to be no adequate sheltering there.
17 FEMA obviously believed for a period of years that without
18 adequate sheltering, relying just on evacuation, if the
19 evacuations were not very, very quick as they would be at the
20 generic site for the close-in areas, you wouldn't have an
21 adequate plant.

22 And the ultimate conclusion, by the way, would be
23 that the site was not appropriate for an operating license. I
24 mean, that is a very nasty thing to say, but that's the
25 conclusion. It isn't that an appropriate site should not get a

1 license. I know it's built; that's too bad. But it wouldn't
2 get a license because it would not be an appropriate site.
3 That was FEMA's position.

4 FEMA now takes the position, and it supports it with
5 a technical analysis that it's okay that there is no
6 sheltering, because it's not needed to handle the problem of
7 protecting the people within three-miles. Why is it not
8 needed? And contrary to what Mr. Dignan says, I think the
9 deposition transcripts will make clear that the reason why it's
10 not needed is because FEMA's technical experts have drawn on
11 the recommendations of 1210 which indicate that you would
12 normally use an evacuation-only PAR.

13 We contend, obviously, that -- well, yes, you would
14 normally only use an evacuation-only PAR, because you only have
15 300 people within three-miles at the generic site.

16 JUDGE SMITH: What's PAR?

17 MR. TRAFICONTE: Protective Action Recommendation.

18 You'd only use an evacuation only protective action
19 recommendation because you have no problem with timely
20 evacuation.

21 We want to rebut their new technical support. The
22 only way we can see clear to rebut it is, interestingly enough,
23 with the same Sholly-Beyea testimony that sets out what the
24 dose consequences of an evacuation only protective action is.

25 We want to contend that if you did do what they are

1 now recommending, you don't need sheltering. You don't need it
2 as an option. You can have an adequate plan without it,
3 because you only need evacuation. We want to be able to come
4 in and say, well, let's see what happens with evacuation only.
5 Because it will send us back to the drawing board, Your Honors,
6 and you will find that you do need a sheltering option. And
7 that 1210 itself supports the proposition that you're going to
8 need a sheltering option for a site that has such lengthy
9 evacuation times.

10 That brings us to the next point and I don't dispute
11 it, Mr. Flynn raised it; we don't believe there's adequate
12 shelter, that's right. So the next progression and the logic
13 is, yes, you're back to the drawing board and you're going to
14 need a sheltering option and you can't find one here.

15 But the inescapable conclusion that we reach is that
16 with long ETEs that call for a sheltering option to protect the
17 populations in the severe accident scenarios, that that kind of
18 a situation begs for a sheltering option. And if the site
19 doesn't have a sheltering option, then under the law, as we
20 read it, no license.

21 Now, it may be unpalatable conclusion, but that's the
22 conclusion that we feel we're forced to by the law. Forced to
23 might be a little strong. That's the conclusion we believe the
24 law will lead you to.

25 Essentially, the logic of the other side is, that is

1 not a permissible conclusion. Assume you cannot reach the
2 conclusion that the plant is not to receive a license under the
3 law, set forth on this analysis by the assumption that the
4 plant has to be able to receive a license. A view that Mr.
5 Dignan I'm sure is glad to hear me say.

6 Assume that it has to be able to get a license. If
7 you assume -- if you start with that premise, I don't dispute
8 the conclusions that Mr. Flynn and Mr. Dignan and Mr. Turk has
9 reached, it has to get a license. Then if it has no
10 sheltering, then don't have sheltering. And if the ETEs are
11 extremely long, well, then they're extremely long.

12 We start with the premise that it's an open issue as
13 to whether it's entitled to a license. And as long as it's an
14 open issue we think the evidence of the ineffectiveness of
15 evacuation should be able to come in.

16 JUDGE SMITH: Okay.

17 (Interruption from audience.)

18 MR. TURK: Your Honor, I'd like to take the one
19 opportunity, not to get into extended discussion about
20 NUREG-1210, but I'd like to note, the only reason why I read
21 anything from 1210, it's my perception that counsel Traficante
22 had left out an important part of the same paragraph in which
23 his statement was contained.

24 And I think to whatever extent we need to argue what
25 1210 says we can do at a later time.

1 JUDGE SMITH: All right.

2 Do you want to resume before the break or do you want
3 to take an early break? Does anybody else wish to be heard on
4 the motion?

5 (Interrupt from audience.)

6 JUDGE SMITH: This is not on the record.

7 All right, proceed.

8 MS. SNEIDER: Thank you, Your Honor.

9 RESUME CROSS-EXAMINATION

10 BY MS. SNEIDER:

11 Q Based on our discussion this morning about
12 precautionary measures, I'd like to now ask the panel if its --
13 isn't it true then that the state cannot rely on these
14 precautionary measures to provide any additional time or any
15 meaningful amount of additional time in the event of an
16 emergency?

17 A (Strome) No, that's not true.

18 Q Well, you've testified this morning that you're
19 making no assumptions about the amount of additional time and
20 you have no basis for stating that there would be any
21 significant amount of additional time; is that correct?

22 A (Strome) I'm not exactly sure what I testified to
23 this morning, but the fact of the matter is, the question to
24 which you put the panel, the answer as far as I'm concerned is,
25 no, it's not true. We think that time can be gained by using

1 precautionary measures.

2 Q Well, then that brings -- do you think a meaningful
3 amount of time can be gained?

4 MR. LEWALD: Objection, Your Honor, that's been asked
5 and answered several times.

6 MS. SNEIDER: I think the witness' latest answer
7 contradicts the earlier responses.

8 JUDGE SMITH: Would you -- I -- we'll permit the
9 answer.

10 MS. SNEIDER: Thank you, Your Honor.

11 THE WITNESS: (Strome) Would you please repeat the
12 question, counselor?

13 MS. SNEIDER: Would you read that back, please.

14 (Whereupon, the Court Reporter played back the last
15 question.)

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16 THE WITNESS: (Strome) Well, I guess my response to
17 that would be that any amount of time that is gained is
18 meaningful.

19 BY MS. SNEIDER:

20 Q So if five minutes was gained that would be a
21 meaningful amount of time?

22 A (Strome) Yes, I'd have to agree.

23 Q And is it your testimony that five minutes would
24 alleviate the concerns about hasty evacuation?

25 A (Strome) Can we confer on that one, please.

1 (Witnesses conferring)

2 THE WITNESS: (Bonds) I believe I testified this
3 morning that FEMA's original concerns with regard to the haste
4 that might be there. And then my response to the similar
5 question this morning was that while five minutes, it's
6 probably not going to make it less hasty, five minutes is still
7 five minutes and that it's five minutes well used if you have
8 it to use.

9 BY MS. SNEIDER:

10 Q And it's true you also testified this morning that
11 you may get no extra time; is that correct?

12 A (Bonds) True.

13 JUDGE SMITH: Would you -- I think this would be a
14 good time for our break, if you don't mind, if I'm not
15 interrupting a thread.

16 MR. BISBEE: Your Honor, I have 16 copies of the
17 Appeal Board Order, for those that want to pick one up.

18 JUDGE SMITH: I'd like to look at one.

19 (Whereupon, a brief recess was taken.)

et/26 20 (Continued on next page.)

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1 JUDGE SMITH: You may proceed.

2 MS. SNEIDER: Thank you, Your Honor.

3 BY MS. SNEIDER:

4 Q I don't mean to belabor this point, but I do consider
5 it a significant one, so I will continue.

6 Is it true then that the state has no basis to
7 presume that these precautionary measures would provide
8 anything more than five minutes?

9 (Board confers.)

10 THE WITNESS: (Strome) I think the answer to that
11 question is no.

12 BY MS. SNEIDER:

13 Q What's the basis for that response?

14 (Witnesses confer.)

15 THE WITNESS: (Strome) I think the answer to that
16 question is that the state has never assumed the time parameter
17 with precautionary actions.

18 BY MS. SNEIDER:

19 Q So there's no basis for assuming any additional time;
20 isn't that so?

21 A (Strome) I don't think we agree with that
22 conclusion. That's your conclusion. We don't agree with it.

23 Q You are telling me then that some vague additional
24 amount of time will be achieved, but you won't tell me any of
25 the assumptions behind that; is that correct?

1 JUDGE SMITH: You can answer it just yes or not if
2 you wish.

3 THE WITNESS: (Strome) Well, I don't think I'm
4 saying that, but I'm not really sure I understand your
5 question, counselor.

6 BY MS. SNEIDER:

7 Q Well, is it correct -- you said that these
8 precautionary measures will provide some additional amount of
9 time.

10 A (Strome) I don't think we gave you an explicit
11 amount of time. We do expect that they will provide us some
12 additional time, yes.

13 Q But you have no idea the range of that time, whether
14 it might be one minute, five minutes, 20 hours?

15 A (Strome) To this point we have not been blessed
16 with --

17 MR. DIGNAN: I object to this line of inquiry for one
18 simple reason. How could anybody give you a time unless she
19 gives them the specific accident she's talking about?

20 The alert is going to kick in at certain plant
21 status, and the general emergency is going to kick in at
22 another plant status, and how long we get from one to the other
23 is going to be totally dependent upon what specific events are
24 occurring in that power plant.

25 The interrogator has yet to give a hypothetical

1 question that the witnesses can answer an put a time frame on.

2 MS. SNEIDER: My response --

3 MR. DIGNAN: You cannot give a general answer to that
4 inquiry because you don't know how much time you have got
5 between the alert and the general emergency unless you know
6 what's going on in the plant.

7 JUDGE SMITH: Well, I missed the thread. There was a
8 disruption in the audience, and when that happened I got
9 distracted for a moment. Then I notice that this same question
10 was coming back which I thought you were asking before noon.
11 And I have assumed that you were talking about, or asking them
12 to comment on the planning basis fast-breaking, severe
13 accidents, one that would happen with apparently little notice
14 even at the time of the alert stage, and that your questions
15 have been addressed to that: how much time would they have at
16 the alert stage in the event that such an accident should
17 occur.

18 And so far they've said, well, maybe five minutes,
19 but we have not put a time parameter on it. Is that where we
20 are?

21 MS. SNEIDER: Well, my point is that it seems to be a
22 significant part of the testimony that they say precautionary
23 measures alleviate some of the problem at this site because
24 they provide additional time.

25 JUDGE SMITH: Yes.

1 MS. SNEIDER: And I want to know what the basis for
2 that statement is; if we could get a range of times that they
3 are assuming.

4 JUDGE SMITH: Then they said, well, they haven't
5 assumed any times.

6 MS. SNEIDER: And when I asked them that, they
7 said -- maybe I'll just --

8 JUDGE SMITH: But am I talking about your question?

9 MS. SNEIDER: Yes, Your Honor.

10 (Board confers.)

11 JUDGE SMITH: So come up with a new question, would
12 you, please?

13 BY MS. SNEIDER:

14 Q Is it true that these precautionary measures would
15 not necessarily provide any additional time?

16 JUDGE SMITH: Well, when you ask these questions,
17 would you make your question complete so that everybody knows
18 additional time over what?

19 I mean you want it to be assumed that additional time
20 in the event that there is a planning basis fast-breaking,
21 severe accident.

22 Well, is that it?

23 MS. SNEIDER: Well, partly I'm trying -

24 JUDGE SMITH: Just as we asked them this morning what
25 additional time you're referring to, and now your questions

1 should allude to the additional time that you're asking about.

2 MS. SNEIDER: The panel's testimony is not talking
3 specifically about which accident sequences these precautionary
4 measures would afford additional time in. I'm trying to get
5 specifically if they can tell me that there is some low-level
6 release that would afford additional time, I'd like to know
7 that. If they can tell me that in some significant release,
8 fast-developing release, it would afford additional time. I'd
9 like to know that.

10 Right now I see the sentence here that's very broad
11 based and I don't understand the foundation for that, and it
12 seems to be a very important part of their testimony that these
13 precautionary measures will provide additional time. And what
14 I'm trying to get from the panel is some parameters: Are there
15 certain circumstances when it would provide that additional
16 time that they can tell me, or is there a range of times that
17 they could rely on for that statement. Are there certain
18 assumptions that they're making about accident sequences when
19 they say it would provide additional time.

20 JUDGE SMITH: Mr. Strome explained this morning that
21 in the event that the unusual condition or the condition
22 bringing about the alert, or the site emergency never led to a
23 release or a general emergency, then the answer would be an
24 infinite amount of time, or I guess maybe 40 years or
25 something, you know, the life of the plant.

1 And then we got the other end of it, and that is --
2 and I'm asking you to correct me if I'm wrong because I'm
3 really having difficulty here. We've got the other end of it,
4 and that is, where there turns out to be in fact a rapidly
5 developing or fast-breaking, severe accident, how much time
6 would that have afforded; is that where we were? We developed
7 that, and that was maybe five minutes, maybe, you know.

8 So now you're trying to fill in the blanks, fill in
9 the two different ends of that proposition, but I commented
10 this morning and I wonder if you could explain to me, and I
11 really mean it, where I'm wrong.

12 Unless there is some type of maybe experience in
13 which -- or analysis -- in which circumstances caused an
14 unusual plant condition, or circumstances which caused an
15 alert, or circumstances which caused a site emergency, unless
16 they are analyzed or looked at to see which of those led then
17 to a general emergency, how could this information be provided?

18 And then I said, even then you would have a formative
19 process where if the same thing that led to an alert over and
20 over and over again led to a general emergency, then there no
21 longer would be an alert thing. It would become a different
22 standard.

23 Now, do you quarrel with that analysis?

24 MS. SNEIDER: No, I have no quarrel with that, Your
25 Honor.

1 JUDGE SMITH: Could you just sort to talk and tell
2 them what you would like to have them explain to you?

3 MS. SNEIDER: I might refer also to New Hampshire's
4 response to the FEMA supplemental testimony which is at
5 Appendix 1, Page 8, where the state says, "The adoption of
6 early beach closings and the precautionary action of beach
7 evacuations is intended by the state to minimize the population
8 that could be subject to possible protection actions at a later
9 time."

10 Now that's presuming that there would be enough -- I
11 assume that there would be enough additional time to get some
12 significant portion of the population out of the beach area
13 before the general emergency stage that would require
14 protective actions.

15 JUDGE SMITH: Well --

16 MS. SNEIDER: And then you would have a smaller
17 number of people to do with at a general emergency which would
18 then making planning easier. That's a very -- the assumption
19 that there would be this additional time to get a significant
20 number of people out of the area --

21 JUDGE SMITH: In what circumstance?

22 MS. SNEIDER: -- is a very important one, and that's
23 exactly what I know -- do they know what circumstances? Is
24 this across the board? Is it anything that they could rely on
25 ahead of time that they would have this additional time?

1 That's what I would like to know.

2 MR. FLYNN: Your Honor, I don't know if this adds
3 anything to the discussion, but part of the difficulty in
4 pinning down what the examiner is looking for is that the --
5 our experience base is very, very limited. There has only been
6 one occasion in the history of nuclear power in this country
7 where anything that might be called a general emergency has
8 been reached.

9 Now if you don't have the experience base, then you
10 have to work from projections, and I think that would be the
11 WASH-1400 series of accidents. But that's not what's being
12 asked.

13 Perhaps it might facilitate the discussion if the
14 questions were tied into something like the WASH-1400 series of
15 accidents.

16 JUDGE SMITH: They have repeatedly stated that they
17 have not used a time factor, a time perimeter. They have
18 accepted virtually as a truism that early action is better than
19 late action, and that's where I have trouble shaking the
20 fundamental logic of that.

21 MS. SNEIDER: Well, if I may, Your Honor, NUREG-0654
22 provides standard warning times of half-hour to several hours
23 that one must plan for. I take it that the thrust of the
24 panel's testimony is that because of these precautionary
25 measures, you would gain an additional amount of time beyond

1 that one half-hour to several hours, because you would alert
2 the population at an earlier stage.

3 JUDGE SMITH: Where is that?

4 MS. SNEIDER: I believe it's Page 13.

5 JUDGE LINENBERGER: Might it be Page 17?

6 MS. SNEIDER: Thirteen.

7 JUDGE SMITH: Thirteen.

8 JUDGE LINENBERGER: Thirteen, and also I say might it
9 be Page 17 --

10 MS. SNEIDER: Oh, yes.

11 JUDGE LINENBERGER: -- that shed light on your
12 position?

13 MS. SNEIDER: Yes.

14 JUDGE SMITH: Do you equate the term there "accident
15 conditions" with the same term that plant conditions which
16 might lead to the alert stage, or the site emergency stage?

17 Let me put it to you gentlemen.

18 MS. SNEIDER: Okay.

19 JUDGE SMITH: You've testified, as I understand, that
20 precautionary measures would be taken at an alert level. She's
21 pointing out here that you have a half-hour to the onset of a
22 release -- I mean to the start of release after the onset of
23 accident conditions.

24 Now is the accident condition alluded to there, is
25 that the same as whatever the condition is that would give rise

1 to a precautionary measure?

2 THE WITNESS: (MacDonald) Mr. Chairman, the
3 declaration of the alert at the station is going to be based on
4 the measurable and observable observations and indicates that
5 are available in the control room initially.

6 JUDGE SMITH: Plant conditions.

7 THE WITNESS: (MacDonald) Plant conditions. With or
8 without an indication of a radioactive release. The
9 declaration and then the notifications and the activations of
10 all the emergency response plans, including the State of New
11 Hampshire, is done just on the basis of the indication of plant
12 conditions, and the conclusion of the evaluation of those plant
13 conditions against the classification system. That could be
14 with releases. It could -- and that occurs at any of the
15 emergency classification levels, but most likely, and very much
16 most likely, the conditions are such that the plant conditions
17 are going to override the declaration decision.

18 In other words, the conclusion by the station
19 operators that the alert condition has been triggered, the
20 alert condition has been reached, the declaration is therefore
21 required. It's going to be done without a release of
22 radioactive material. It's going to be done just on the basis
23 of plant conditions.

24 No, the sequence that got -- that required the
25 declaration of the alert conditions in the declaration and the

1 notifications and activations of off-site response plans is
2 pure speculation as to whether that leads ultimately to a
3 release of major amounts of radioactive material.

4 Should it progress or deteriorate at that point, and
5 move up through the classification systems, then additional
6 classifications would be concluded, and notifications of site
7 area and ultimately if conditions really deteriorated so that
8 the criteria for general emergency was reached, then the
9 declaration and notifications for a general emergency condition
10 would be passed on.

11 But the initial assessment of either an unusual event
12 or an alert, and in our discussion here, the alert declaration
13 and the assessment of the alert conditions may trigger an
14 action by the State of New Hampshire for early beach closing is
15 done by the operators, is done on the basis of plant
16 conditions.

17 JUDGE SMITH: All right

18 MS. SNEIDER: I'm not sure that was entirely
19 responsive to your question, Your Honor, which I thought was a
20 good one. And so I think I --

21 JUDGE SMITH: Well, let's try ---

22 JUDGE LINENBERGER: I respectfully suggest, however,
23 that the panel member who just spoke added a dimension of
24 perspective to the kinds of things that could happen which
25 dimension of perspective to my way of thinking, does

1 illuminate the question of whether your line of interrogation
2 needs amplification to give it meaning.

3 I suggest that, to repeat myself, I hope more
4 succinctly, what the gentlemen just said should be helpful to
5 you.

6 JUDGE SMITH: What do members of the panel understand
7 to be the accident, the meaning of the word "accident
8 condition" on Page 13 which begins the clock for the half-hour
9 for which you have to make an assumption of a major release?
10 What is that, what is that event?

11 Could that be a plant condition that would trigger an
12 alert also, coincidentally? Not coincidentally but could --
13 yes, coincidentally, I guess, yes.

14 THE WITNESS: (Callendrello) Yes.

15 JUDGE SMITH: It could be.

16 THE WITNESS: (Callendrello) Yes.

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17 (Continued on next page.)

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1 BY MS. SNEIDER:

2 Q So then it could be that at the alert level, starting
3 at the alert level when you would initiate precautionary
4 measures the accident could proceed very rapidly to a release,
5 from that stage you would have a half an hour until the release
6 according to the planning basis and what you've just told me?

7 A (Callendrello) That's what that guidance indicates.
8 It also indicates that there's another end of that range and
9 that is half an hour to one day, as indicated on page 17.

10 JUDGE SMITH: She's not asking you, as I understand
11 it, to agree that that is going to happen; just to agree that
12 that is the basis upon which you were planning, if you are.

13 THE WITNESS: (Callendrello) Yes, that is the basis
14 for the plans. The plans anticipate a situation where a
15 rapidly developing emergency exists and have the mechanisms in
16 place to respond to that, as well as a more slowly developing
17 accident.

18 MS. SNEIDER: Thank you.

19 MR. DIGNAN: Your Honor, I don't know if this will
20 elucidate or not, but I guess it was my objection that
21 triggered this off. In answer to the Board's question, the
22 Chair's question, I'm wondering if it would be of assistance to
23 the Board to direct their attention respectfully to, I believe
24 it's Appendix 1 to the testimony. And it's the page that says,
25 Appendix 1, page 16 of 47. And at the bottom the pagination is

1 F-3. And in there -- at the bottom you will see a heading
2 "Precautionary and protective actions by emergency
3 classification level," which is I believe what the thrust of
4 Your Honor's question was a minute ago, when do we go to these.

5 You will see one alert, (a) initiating conditions.

6 And it says: "Wind direction toward the beach," and here's, I
7 believe what Mr. MacDonald was addressing, the kind of thing he
8 was addressing himself, "Plant conditions as determined by
9 plant personnel indicate that a major plant system is unstable
10 or degrading."

11 JUDGE SMITH: Yes.

12 MR. DIGNAN: And as I understand that, and I agree
13 the witnesses should confirm and I shouldn't testify, but if I
14 heard Mr. MacDonald correctly what he was telling us is, at
15 that point the alert gets declared in the control room. And I
16 hope I'm being helpful here because I understood that to be the
17 basic thrust of the inquiry you were making to the Board, as to
18 when they understood we would go to that alert classification.

19 And it is the alert classification, as I understand
20 it, which triggers the -- possibly triggers, depending on what
21 the state does with it, the description -- the actions
22 described on page 13 of the testimony.

23 Now, if I've said anything wrong I apologize to
24 everybody, but I hope that helps move things.

25 JUDGE SMITH: All I'm trying to do is frame the

1 context, so that we can get on with the questioning and get the
2 answers.

3 Now, I would take it and this is -- I'll ask the
4 panel this, on page F-4 where you have among the two -- between
5 the two initiating conditions for an alert plant conditions as
6 determined by plant personnel indicate a major plant system is
7 unstable or degrading; when you have a major plant system that
8 is unstable and degrading are you, coincidentally, can you have
9 an accident condition within a half hour the start of a major
10 release? It would seem to me, yes.

11 THE WITNESS: (Callendrello) It's possible. The two
12 are not necessarily related.

13 JUDGE SMITH: Right. But it could be a plant
14 condition that is going to release some major release within a
15 half hour for planning purposes at the alert level.

16 BY MS. SNEIDER:

17 Q And in fact the onset of accident conditions could
18 initially trigger a classification of unusual event; is that
19 accurate?

20 A (Callendrello) Yes.

21 Q And that could also be the start of that half hour
22 time frame, from the unusual event to the release?

23 A (Callendrello) You're asking, is it possible?

24 Q Yes.

25 A (Callendrello) According to the guidance in

1 NUREG-0654, yes. Although they don't specific the accident
2 conditions. If we define that as an unusual event, then that
3 would meet their guidance.

4 Q For a serious accident, do you know what the average
5 warning time is?

6 MR. DIGNAN: Could I hear that again?

7 (Whereupon, the Court Reporter played back the last
et/28 8 question.)

9 (Continued on next page.)

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1 MR. DIGNAN: I object. What is the definition of a
2 serious accident, Your Honor. I mean --

3 JUDGE SMITH: Before we go --

4 MR. DIGNAN: We haven't had enough experience as the
5 Board has marked out. We haven't had a serious accident in
6 this country.

7 JUDGE SMITH: Well, wait a minute.

8 MR. DIGNAN: What are we talking about.

9 JUDGE SMITH: Before we go there let's go back,
10 you're talking now about unusual -- what is it, unusual --
11 what's the one above -- before alert, unusual --

12 THE PANEL: Unusual event

13 JUDGE SMITH: Unusual even..., let's go to that. Let's
14 look at it instead of bouncing around, hoping we might hit upon
15 the answer; where is that covered? And incidentally, where did
16 these standards come from? I've seen them -- I know you just
17 didn't make this up for this state and this plant. It came
18 from NUREG-0654, didn't it, the plant conditions unstable or
19 degrading. Where is the definition for unstable?

20 THE WITNESS: (Callendrello) Your Honor, the
21 definitions of the alert come from NUREG-0654. What you've
22 just read, plant conditions unstable or degrading, are the
23 initiating conditions that have been established by the State
24 of New Hampshire for taking precautionary action.

25 JUDGE SMITH: I'm sorry. I'm having a mental block.

1 I guess, remembering that plant condition before alert, unusual
2 event, yes.

3 THE WITNESS: (Callendrello) Unusual event.

4 JUDGE SMITH: Now, where do we get that? That's in
5 the Appendix?

6 THE WITNESS: (Callendrello) That's in Appendix 1 to
7 NUREG-0654.

8 JUDGE SMITH: Notification of unusual event. All
9 right, this is a potential degradation of the level of safety
10 at the plant.

11 MR. DIGNAN: Your Honor, again without -- if -- and
12 I'll be glad to give it to the Board, I don't know if the Board
13 has -- it's Volume 2 of the plan, Appendices A through K.
14 Among other things one can find in there the emergency
15 classification flow chart. This is to bring it back to what
16 Mr. MacDonald was talking about.

17 And in there you have laid out under the
18 classifications, unusual event alert, site area and general
19 emergency. All of the things in various sequences that can
20 result in the classification. To give you an example; we have
21 here a classification that says, electrical -- well, where is
22 one that I can understand in plain English. High radiation,
23 and that's the critical safety function that's been observed.
24 And it says: "You'll declare unusual event, site boundary,
25 whole body dose rate is greater than 6E-2 MR per hour."

1 I mean, this is what I am getting at; all of these
2 sequences are laid out in the plan, granted in Volume 2 here,
3 and what operates. And what Mr. MacDonald, who is the most
4 knowledgeable fellow I would guess up there in this whole
5 business was saying to us is, the plant operators sit there
6 with this chart in front of them and when they see these
7 conditions in front of them they make the declaration. And the
8 alert level comes up depending upon what the problem is, the
9 alert level is laid out in front of them on this chart. And as
10 soon as they see this from their instrumentation, that's when
11 you get the alert.

12 And that's why I've been complaining about these
13 broad questions because unless the sequence is given in the
14 question, what precise events are we looking at in the plant, I
15 don't see how anyone can give an intelligent answer to their
16 best guess as to how long they've got between the alert and the
17 general emergency, without the assumption of facts of what they
18 are dealing with.

19 JUDGE SMITH: Well, were you satisfied with the
20 answer to the last question, that an alert where degradation of
21 a major plant system has been observed or determined can lead
22 to major release within a half hour without specifying a
23 specific one?

24 MR. DIGNAN: Was I satisfied with it?

25 JUDGE SMITH: Yes.

1 MR. DIGNAN: Sure.

2 JUDGE SMITH: Okay. Well, I mean, -- now, let's go
3 to the unusual event.

4 MR. DIGNAN: And if a meteor falls out of the sky on
5 top of a nuclear powerplant there's going to be releases all
6 over the place in 10 seconds.

7 JUDGE SMITH: Well, sir, she's entitled to make her
8 point.

9 MS. SNEIDER: It's a little difficult when we're not
10 allowed to litigate specific accident sequences, and where
11 probabilities, it's a little bit difficult to cross within
12 those parameters. I'm either too broad or else I'm too
13 specific. And it's hard to find a middle that's acceptable.

14 MR. TURK: Your Honor, I don't know why we can't
15 simply stipulate to something on this.

16 JUDGE SMITH: I think we probably can. But I want to
17 know what we're stipulating. Now, what was your last question?
18 It pertained to unusual event, and as I recall the gist of the
19 question is, can a condition which they would regard as unusual
20 event lead to, you said, a serious accident, which got Mr.
21 Dignan on to his --

22 MS. SNEIDER: No. I said, lead to a release within
23 one half hour. Then I followed up with another question when
24 he agreed about the average warning times. Do you know the
25 average warning time for a serious accident?

1 Now, I am prepared to further define serious
2 accident, if that's accepted.

3 JUDGE SMITH: You had -- that was not in the context
4 of unusual event; that was a different line of questioning.

5 MS. SNEIDER: That's correct.

6 JUDGE SMITH: I'm afraid I've interfered here where I
7 had no cause to.

8 MS. SNEIDER: That's all right, if we can gain
9 clarification here I'm happy.

10 JUDGE SMITH: Well, I think that we will have to
11 sustain that objection.

12 MS. SNEIDER: And you're sustaining that objection on
13 the basis that I haven't defined serious accident?

14 JUDGE SMITH: Yes. I think that's not well enough
15 defined unless the Panel disagrees with me. Is that sufficient
16 clarity for you to answer?

17 THE WITNESS: (Callendrello) I don't think so.

18 JUDGE SMITH: I expected that; that's fine.

19 (Laughter)

20 MS. SNEIDER: I'll try one way, probably -- maybe,
21 but I consider the lesser of -- the way likely to be less
22 objectionable first.

23 BY MS. SNEIDER:

24 Q I define serious accident as one which is likely to
25 lead to early injuries and fatalities if protective measures

1 are not taken offsite within 24 hours after release. And I'd
2 like to know then, what is the average warning time from the
3 initiating condition until the release for that type of
4 accident? And I can get more specific in my definition, if you
5 would like?

6 JUDGE SMITH: Are you satisfied with initiating
7 condition, that aspect of it of her question?

8 MR. DIGNAN: I'll note my objection, fully
9 understanding what the ruling probably is.

10 MR. TURK: Your Honor, I don't know if this is an
11 objection to the question or not, but I have a problem with it
12 for a couple of reasons. One, it asks them for an average
13 warning time for that type of accident without -- how are they
14 to do that without cataloguing all the different accidents
15 within her definition, and then putting it out to some kind of
16 mathematical average of warning times.

17 MS. SNEIDER: I think -- you know, this has been done
18 in the emergency planning literature; I don't think it's that
19 difficult to figure out what the average warning time is for
20 serious accidents. NUREG-1210, for example, makes some very
21 basic assumptions about that, and that's -- the whole guidance
22 document is directed towards -- it's very easy to look at
23 WASH-1400 and the warning times that are provided there, the
24 significant releases.

25 JUDGE SMITH: Well, then why don't you cast that.

1 MS. SNEIDER: Okay. I had thought that would be
2 objected to, so I will.

3 JUDGE SMITH: Well, maybe it will be.

4 (Laughter)

5 BY MS. SNEIDER:

6 Q Okay. Looking at WASH-1400 --

7 JUDGE SMITH: Wait a minute.

8 JUDGE LINENBERGER: Excuse me, I think you cut Mr.
9 Turk off before he had an opportunity to finish his comments.
10 I may be wrong about that.

11 MR. TURK: Thank you.

12 JUDGE LINENBERGER: But I think he had not finished.

13 MR. TURK: Thank you, Your Honor. I was going to add
14 that there could be any infinite number of sequences that may
15 get you to a point where you're going to have the type of
16 accident consequences that Ms. Sneider is asking about.

17 One, I don't think it's within the capability of the
18 witnesses, as they sit there, to give the response, but that's
19 something they'd have to say.

20 But two, it's really getting back into particular
21 accident sequences, particular scenarios; and I think where all
22 this is heading is back to a probabilistic argument again.

23 I really don't see that there's a point to it. I
24 don't know where the examination is leading. Maybe that the
25 Board is more aware of this than me, since you have a cross

1 examination plan.

2 But if the simple point is that there may be accident
3 conditions that get you to a release with severe offsite
4 consequences before the public has evacuated, we might be able
5 to work out some sort of language that gets a stipulation on
6 that.

7 JUDGE SMITH: I just assume that you're still on the
8 theme that the precautionary measures do not give any
9 additional time; you're still on that theme?

10 MS. SNEIDER: Yes.

11 Can I proceed?

12 JUDGE SMITH: Yes. If the question is -- the
13 question is standing there -- what is the question; is there an
14 average warning time for serious accidents, serious accidents
15 or accidents that can cause early fatalities and injuries
16 within 24 hours?

17 MS. SNEIDER: If no protective measures are taken.

18 JUDGE SMITH: If no protective measures are taken.

19 MS. SNEIDER: And I'm prepared to further define
20 that, if that would make it easier within the context of
21 WASH-1400.

22 JUDGE SMITH: Yes.

23 MR. DIGNAN: I object. There are not sufficient
24 parameters in that question to have a meaningful answer framed
25 even if a witness is willing to try it, that will have any

1 meaning in this record. It will have no probative value. And
2 I object on that ground.

3 MS. SNEIDER: It's my position that we're talking
4 about emergency planning and certain assumptions I would
5 assume -- I assume the significant -- the major thrust of
6 emergency planning is to prepare for accidents that could have
7 the potential for serious offsite consequences if protective
8 actions are not taken in a timely manner.

9 I assume that as planner certain assumptions, that
10 there are certain basic assumptions about the amount of time
11 one has for these serious accidents. And that the thrust of
12 this whole testimony is geared to saying that this wouldn't be
13 a problem, because we have taken care of that.

14 And my testimony -- I mean, my questioning is
15 directed at what those assumptions are. If they can tell me
16 what times we're talking about here.

17 JUDGE SMITH: As I recall, the Panel has already
18 indicated that they don't have an answer for that question, but
19 I'm not sure about it. So let's find that out before we try to
20 unravel whether the question is appropriate; that might be a
21 short cut.

22 Can you answer the previous question; what is the
23 average warning time that one might expect before a serious
24 accident which within 24 hours could result in early fatalities
25 and injury if no protective actions are taken?

1 THE WITNESS: (Callendrello) I see everybody on the
2 panel is shaking their head, no. I don't know and I don't
3 think anybody else on the Panel knows.

4 JUDGE SMITH: Now, that question is gone. Now let's
5 try your new question.

6 BY MS. SNEIDER:

7 Q Isn't it true that, in fact, WASH-1400 the reactor
8 safety study in which NUREG-0654 planning basis is based
9 provides warning times of between one and only two hours, the
10 PWR-1 through PWR-5 accidents?

11 A (MacDonald) I don't have WASH-1400 with me. My
12 recollection of the various sequences, and there were nine PWRs
13 sequences in WASH-1400, sequences one and two were the most
14 severe, were that there were development times on that order,
15 but I can't quote what you stated was exactly true out of
16 WASH-1400.

17 Q But you agree that PWR-1 through PWR-5 are the
18 serious accident -- more serious of nine sequences?

19 A (MacDonald) Of the nine sequences, PWRs 1 through 5
20 are more serious than PWR-6 through 9; that's true.

21 Q And as far as you recall, based on your knowledge of
22 the WASH-1400 warning times, does the range of times between
23 one and two hours warning seem representative of those PWR-1
24 through 5 accidents?

25 A (MacDonald) There were some ranges for the more

1 severe PWR sequences that were on that order, and I can't quote
2 which one was one or which one was two hours. But that sounds
3 reasonable within that PWR-1 through 5 range on the order of
4 two hours sounds reasonable.

5 Q Okay.

6 JUDGE LINENBERGER: I would just make an observation
7 here, counselor, that you really changed the whole ball game of
8 your interrogation when you uttered the magic words, PWR-1, et
9 cetera. And having uttered those magic words you got a
10 response. Prior to uttering those magic words you had
11 difficulty getting a response.

12 I hope that there's some learning on your part here.

13 MS. SNEIDER: That's very helpful.

14 THE WITNESS: (MacDonald) Can I amend my answer,
15 that that be subject to check. I don't have WASH-1400 with me.

16 JUDGE SMITH: Sir, I think that you had pretty well
17 qualified it anyway.

18 THE WITNESS: (MacDonald) I hope so.

19 JUDGE SMITH: That it was to the best of your memory.

20 THE WITNESS: (MacDonald) I hope so. Okay.

21 JUDGE SMITH: And it was within the range of your
22 memory. If you find out -- if you should find out that --

23 THE WITNESS: (MacDonald) I'll be checking it.

24 JUDGE SMITH: -- that you're incorrect on it, you
25 should come back.

1 THE WITNESS: (MacDonald) You bet.

2 BY MS. SNEIDER:

3 Q Based on what you've just told me, even if the beach
4 population is notified early on in an emergency, and let's
5 assume a PWR-1 through 5 type of emergency, that wouldn't
6 provide the beach population enough time to get out of the
7 beach area in the event of a serious accident, would it?

8 MR. DIGNAN: I'm sorry, I didn't hear one word of
9 that, wouldn't let the beach population get out?

10 MS. SNEIDER: Right, would not.

11 MR. DIGNAN: I object to the question, if that's
12 directed at Seabrook. It has not been established that the
13 Seabrook site -- the Seabrook design is the equivalent of the
14 design looked at in WASH-1400. And indeed, as the Commonwealth
15 well knows, it is the position of my client that Seabrook is
16 considerably stronger designed than the reactor considered in
17 WASH-1400.

18 If you wish to amend the question by saying, assuming
19 a WASH-1400 reactor, I won't object. But if that is directed
20 at Seabrook I object on the grounds that foundation has not
21 been laid, that Seabrook can be equated to the reactor examined
22 in WASH-1400.

23 MR. FLYNN: I have a different objection. The
24 question uses the term "serious accident," and it obviously
25 refers to the PWR-1 through 5 accidents, but a few questions

1 back the term "serious accident" was given a specific meaning
2 and it hasn't been established that that meaning fits the PWR-1
3 through 5 accidents.

4 JUDGE SMITH: Well, I -- no, we started new. That
5 serious accident question just washed out when they're unable
6 to answer it. So now this question stands on its own.

7 MR. FLYNN: If that is in fact the intent of the
8 question, to use it in a different sense than was established
9 earlier, then I will withdraw the objection.

10 JUDGE SMITH: Yes, that other question is not related
11 to this question; that question died.

12 MR. DIGNAN: Your Honor, I still --

13 MS. SNEIDER: If Your Honor --

14 JUDGE SMITH: Yes, I know.

15 MR. DIGNAN: -- the WASH-1400 report, which I'm sure
16 the Board is aware, was based on certain assumptions about the
17 reactor and the plant, and there has been no foundation laid
18 that Seabrook and those two are perfectly equated. Indeed
19 it's --

20 MS. SNEIDER: Your Honor, if I can respond.

21 MR. DIGNAN: -- I have no objection to foundation
22 questions going to Mr. MacDonald to see if he'll agree that
23 Seabrook and the WASH-1400 is the same, but that foundation
24 question hasn't been asked yet.

25 MS. SNEIDER: Your Honor, WASH-1400, the PWR

1 accidents therefore in the planning basis for NUREG-0654, I
2 think the burden is on Mr. Dignan if he wants to come in here
3 and litigate -- say that the Seabrook plant should be treated
4 differently than any other side rather than the burden be on us
5 to establish the opposite.

6 JUDGE SMITH: Is your planning base predicated upon
7 the WASH-1400 sequences? Just answer that question.

8 THE WITNESS: (MacDonald) The New Hampshire RERP is
9 based on NUREG-0654.

10 JUDGE SMITH: And what is your understanding as to
11 the WASH-1400 sequences as a foundation for the planning basis
12 of NUREG-0654?

13 THE WITNESS: (MacDonald) The WASH-1400 sequences
14 had some -- offered some insight into the emergency planning
15 zone concept. There was a forerunner report in 1978, NUREG-
16 0396 that is actually referenced and cited in NUREG-0654, for
17 determining what size and what kinds of emergency planning
18 zones should be specified for nuclear powerplants.

19 So in that regard --

20 JUDGE SMITH: Right. That's where we got the 10-mile
21 EPZ.

22 THE WITNESS: (MacDonald) That's correct.

23 JUDGE SMITH: But you don't read NUREG-0654 as
24 requiring that you address the PWR, the WASH-1400 PWR-1 through
25 5 type of accidents?

1 THE WITNESS: (MacDonald) Not at all. What we got
2 was judgment from the NRC and EPA on what kind of emergency
3 planning zone should be specified and what size they should be.
4 And the result of all that, and then it became 0654 -- NUREG-
5 0654 in conjunction with FEMA on what kind of emergency
6 planning arrangements should be specified. NUREG-0654
7 specifies the emergency planning arrangements that are required
8 for nuclear powerplant sites, the basis of which, for the
9 emergency planning zone portion, was NUREG-0396. But
10 0654 --

11 JUDGE SMITH: Does the fast-breaking, severe
12 accident, is that translatable to any of the PWR accidents from
13 WASH-1400?

14 THE WITNESS: (MacDonald) There were among those
15 nine PWR cases analyzed in WASH-1400, there were -- among the
16 more severe conditions there were what is -- what you've just
17 characterized as fast-breaking emergency conditions.

18 JUDGE SMITH: Well, I didn't mean to change the --
19 what I meant by fast-breaking is within one half hour.

20 THE WITNESS: (MacDonald) I'm sorry, what was that?

21 JUDGE SMITH: What I meant by fast-breaking was
22 within one half hour of the onset of accident conditions.
23 Whatever it says in NUREG-0654.

24 THE WITNESS: (MacDonald) That's correct.

et/29

25 (Continued on next page.)

T30

1 JUDGE SMITH: What's correct?

2 I'm sorry.

3 What I am trying to determine is, in NUREG-0654, Page
4 13, there is a reference we've dealt with ever since this
5 hearing has began, that he range of times are between -- the
6 one we've been litigating all along -- is the onset of accident
7 conditions and the start of a major release in the order of
8 one-half hour from the onset of the accident conditions.

9 Is that -- do you understand that boundary, planning
10 boundary, to be translatable to the PWR-1 accident?

11 THE WITNESS: (MacDonald) I can't answer. I'm not
12 sure that it's exactly PWR-1. I can't say that.

13 JUDGE SMITH: Okay. So you can't translate that
14 through anyplace to WASH-1400 directly?

15 THE WITNESS: (MacDonald) Not directly. Those
16 statements on Page 13 come from NUREG-0396, the joint EPA and
17 NRC study in 1978 for the planning zones. Some of 0396 was
18 based on WASH-1400, and then there was judgment inserted beyond
19 that.

20 JUDGE SMITH: But judgment was inserted, so we end up
21 with a 10-mile EPZ, and that is just -- okay.

22 All right. Well, I think we will sustain Mr.
23 Dignan's objection unless you modify it the way he suggested.

24 BY MS. SNEIDER:

25 Q Well, Mr. MacDonald, didn't these time frame on Table

1 2 of NUREG-0654, Page 17, aren't those based on the WASH-1400
2 reactor safety study warning times?

3 A (MacDonald) Well, they come directly from
4 NUREG-0396. Now you would have to go back and look at 0396 to
5 see what kind of use was made of sequences out of WASH-1400.
6 And I can't sit here today and say there is an exact
7 correlation between this table and 654 and WASH-1400, because
8 you've got to go through the intermediary step of going through
9 0396.

10 Q Well, isn't it -- isn't NUREG-0396 based on
11 WASH-1400?

12 A (MacDonald) As I indicated to the chairman,
13 NUREG-0396 used all that was known about reactor safety and
14 potential accidents, including WASH-1400, which at the time
15 was, of course, the most exhaustive study conducted.

16 It also used everything else that was available to
17 the EPA and NRC task force members for the judgment about
18 emergency planning, emergency planning requirements, emergency
19 planning guidance. And I can't say whether there was an exact
20 correlation between this table here, Table 2, and NUREG-0654
21 and WASH-1400, because it had to go through that task force
22 effort that produced NUREG-0396.

23 Q Are you familiar with NUREG-1210?

24 A (MacDonald) Not very much at all.

25 Q Anybody on the panel familiar with that document?

1 A (Callendrello) I have a copy. I wouldn't say I'm
2 necessarily familiar with it, but I have at least looked at it.

3 Q Well, isn't it true that NUREG-1210 assumes that
4 serious accidents would be fast-developing puff releases that
5 would occur usually with one or two hours' warning?

6 A (Callendrello) I don't think that's correct.

7 Have you got a citation for that?

8 (Pause.)

, MS. SNEIDER: Can we take a short break, Your Honor?

10 JUDGE SMITH: All right. Five minutes?

11 MS. SNEIDER: That's fine

12 (Whereupon, a recess was taken.)

13 JUDGE SMITH: All right, you may proceed.

14 MS. SNEIDER: Okay. I'm sorry, Your Honor, the
15 volume of NUREG-1210 that I have with me is not the one that
16 has that information, so I'll try a new line of questioning.

17 BY MS. SNEIDER:

18 Q If you assumed a serious accident with two-hour
19 warning time, that wouldn't provide you enough time to evacuate
20 the entire beach population from the beach area, would it, even
21 with precautionary measures?

22 A (Callendrello) I don't think that's necessarily
23 true.

24 Q Well, if you assume a serious accident on a summer
25 day, fair weather, summer day, two o'clock p.m., with one or

1 two -- with two hours' warning time, that wouldn't provide
2 enough time to evacuate the entire beach population from the
3 beach area, would it?

4 MR. TURK: I don't think the question asked what day
5 of the week.

6 MS. SNEIDER: I don't care what day of the week.

7 MR. DIGNAN: Well, I don't either, but I do care what
8 you mean by two-hour warning time. From what to when is the
9 two hours running?

10 MS. SNEIDER: From the onset of accident conditions
11 to the time of release.

12 MR. DIGNAN: How long are you assuming it takes the
13 release to get to the beach?

14 MS. SNEIDER: And I'll add another assumption to
15 that.

16 BY MS. SNEIDER:

17 Q That if the plume is -- let me step -- would plume
18 travel time of four miles per hour be a reasonable -- is that
19 an unreasonable assumption to use as an example?

20 A (Callendrello) If you'd like --

21 Q Is that as reasonable as any other?

22 A (Callendrello) If you'd like us to use that
23 assumption, we'd be willing to use that assumption. I assume
24 you mean towards the beach.

25 Q Right. Now plume travel time of four miles per hour

1 would not be an unusually fast plume travel time, would it?

2 A (Callendrello) Unfortunately, my expertise is not
3 meteorology, but it's in emergency planning. I don't know if
4 we have any meteorologists here.

5 Q Well, is it true that NUREG-0654 assumes the travel
6 time for release to exposure point at five miles one-half hour
7 to two hours?

8 A (Callendrello) Yes, it does.

9 Q I would like to change my --

10 Assume the plume would reach a person located two
11 miles from the plant one hour after the release, and assume a
12 warning time of two hours.

13 Would that provide enough time to get the beach
14 population evacuated on a summer -- fair weather, summer day at
15 two o'clock p.m.?

16 A (Callendrello) The warning time being the time from
17 the initiation of the -- the first initiation of any -- the
18 first indication of any accident condition to the time of the
19 release?

20 Q That's correct.

21 A (Callendrello) As I recall Mr. Lieberman's testimony
22 on evacuation time estimates, the time to evacuate the beaches
23 is on the order of five and a half to six hours. So that that
24 time would be longer than the three hours you have indicated in
25 your hypothetical, and therefore the entire beach population

1 would not be evacuated.

2 Q Mr. MacDonald, wouldn't you agree that the most
3 serious accidents are fast releases of only one or two hours
4 duration?

E30 5 A (MacDonald) No, I would not agree with that.

T31 6 Q Well, isn't it true that an accident rather than
7 proceeding gradually from an alert level to a site area to a
8 general emergency could in fact start off, based on plant
9 conditions, as a general emergency?

10 A (MacDonald) That's true.

11 A (Callendrello) We're a little off base in our
12 planning assumptions.

13 We as planners, off-site planners, and I can't speak
14 for everybody else, but I don't think there is anybody here who
15 is a risk assessment expert. I know I certainly am not.

16 It's off-site planners who use the guidance contained
17 in NUREG-0654 as the basis for developing plans. It's so
18 indicated in the section we've been talking about all day, and
19 that is Section 1 planning basis.

20 In it is indicated on Page 17, Table 2, guidance on
21 initiation and duration of release, and then time from the
22 initiating event to the start of the atmospheric release is a
23 half-hour to one day, and there are other categories of time
24 which affect emergency planning. And in turn, as planners, we
25 develop plans that respond to the spectrum of time frames.

1 Clearly, precautionary actions would be associated
2 with a time frame that you are going through accident
3 classifications, the various accident classifications.

4 In a more rapidly developing accident where you have
5 maybe skipped an accident classification, you obviously would
6 not implement the precautionary action that you had intended,
7 or developed a plan for.

8 Plans are intended to be flexible and to respond to
9 the spectrum of accidents.

10 Q I understand that.

11 A (Callendrello) Again, as planners, we haven't looked
12 at what is the basis for the time frames. This is the
13 guidance, this is the guidance that the plans are developed to
14 respond to.

15 Q In fact, Mr. MacDonald, it's no more likely is it
16 that an accident would proceed gradually to a general emergency
17 from an alert classification than an accident would start off
18 as a general emergency?

19 A (MacDonald) I don't agree with that.

20 Q What is the basis for your disagreement?

21 A (MacDonald) My knowledge of accident sequences, and
22 Seabrook Station in specifics, that I don't feel that a prompt
23 general emergency is just as likely as a slow developing
24 emergency that steps through the classification system. I
25 don't feel that at all.

1 A (Callendrello) I have to agree with that. If you
2 look at the history, at least since this emergency
3 classification system as been in place, there have been, I
4 would estimate, several hundred unusual events, on the order of
5 30 to 50 alerts in on-site area emergency. So, clearly that
6 supports what Mr. MacDonald just said.

7 Q But we're concerned here with an accident that
8 results in a general emergency. I think we're talking about an
9 entirely different issue. I don't think you can look at the
10 accidents that didn't proceed to a general emergency as a basis
11 for your statement.

12 A (Callendrello) If I heard the question correctly,
13 you said isn't it as likely, and from the alerts in the on-
14 site area emergency that have occurred, it's not as likely.

15 Q Well, even if the beach population did gain some
16 amount of additional time to evacuate as a result of the
17 precautionary beach closing measures, that extra time would not
18 be available for those accidents that start off classified as a
19 general emergency; is that so?

20 A (Callendrello) Yes, that's correct.

21 Q And your testimony at Page 17 provides, "In the event
22 that accident conditions preclude implementation of early
23 precautionary measures for the beach population, evacuation
24 continues to be the preferred response."

25 Is that correct?

1 A (Callendrello) Yes, it is.

2 Q And that statement, I take it, is referring to those
3 accidents which start off classified as a general emergency; is
4 that right?

5 A (Callendrello) That's right, yes.

6 Q Now your testimony cites as a basis for the statement
7 that evacuation would be the preferred response a paragraph
8 from Volume 1 of the New Hampshire RERP which states, "If all
9 potential radiological exposure can be avoided by implementing
10 a timely evacuation, evacuation may be the preferred protective
11 action. For implementation of protective actions deemed
12 appropriate and were time and plant conditions permit,
13 evacuation will generally be the selected course of action."

14 Now, you did not mean to imply from that statement
15 that in a general emergency evacuation of the summer beach
16 population would result, or would usually result in the
17 avoidance of all potential radiological exposure, do you?

18 A (Callendrello) It certainly could.

19 Q My question is would it -- are you implying that it
20 would usually result?

21 A (Callendrello) Could you repeat it again? I may
22 have missed a subtlety in the question, but could you go
23 through one more time.

24 Q You did not mean to imply from that statement that in
25 a general emergency evacuation of the summer beach population

1 would usually result in the avoidance of all potential
2 radiological exposure, do you?

3 JUDGE SMITH: I'd like to hear that question once
4 again.

5 Would you read it back, please?

6 (Accordingly, the pending question was read back by
7 the court reporter.)

E31 8 (Continued on next page.)

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1 THE WITNESS: (Callendrello) As I understand the
2 question, it is, in a nutshell, do we feel that the statement
3 we've made in the plan in Section 2.6, the one that's quoted in
4 the testimony, is that applicable to the beach population, and
5 is there a circumstance where all potential radiological
6 exposure can be avoided by evacuation of the beaches.

7 I believe that there are circumstances where all
8 potential radiological exposure can be avoided by evacuation of
9 the beach population.

10 BY MS. SNEIDER:

11 Q That's not my question.

12 Do you think that would be the usual circumstance
13 that all radiological exposure would be avoided by evacuation
14 of the beaches?

15 A (Callendrello) I don't know the answer to that. I
16 can tell you that whether it's usually or not, there are
17 possibilities that it can be completed prior to -- the
18 evacuation can be completed prior to any exposure of that
19 population.

20 Q So I cannot take from that statement that it was
21 meant to imply that that would usually occur that all
22 radiological exposure would be avoided?

23 A (Callendrello) I don't know, but I suppose the word
24 "usually" would have been in there.

25 A (Strome) I think we need to ask you, counselor, what

1 you mean by usually. Do you mean always?

2 Q Likely.

3 A (Strome) Well, that's sort of an ill-defined word,
4 and there are no parameters to that. Always is certainly a
5 parameter, or never, I understand that. But I don't know what
6 you mean when you say likely.

7 Q More often than not?

8 (Laughter.)

9 BY MS. SNEIDER:

10 Q All I'm asking is did you intend to imply that that
11 would be the case more often than not.

12 MR. FLYNN: Your Honor, I object. The question
13 really asks how likely is it, or what are the probabilities
14 that a certain type of accident would occur. You know, if you
15 take the entire range of accidents and you pick out the ones
16 that are going to develop in such a way that there would be a
17 release and people would be exposed to the release before the
18 evacuation is completed, and distinguish that from all the
19 others.

20 It goes right to the question of probabilities, and
21 this panel is not -- they can't answer that question. They
22 don't know the probabilities, and I submit that --

23 JUDGE SMITH: They've been asked to assume a general
24 emergency without regard to the probability of the events which
25 give rise to the general emergency.

1 MR. FLYNN: Well, when you're talking about most of
2 the time, what percentage of t' time, usually and so on, it
3 sounds like you're asking -- well, every weekend you're going
4 to have an evacuation, and how many -- you know, of the number
5 of evacuations that you're going to have, how many of them are
6 going to result in dose savings.

7 Well, this plant isn't ever going to have more than
8 one accident.

9 (Laughter.)

10 MR. FLYNN: So that really is not the sense of the
11 question. The question goes to probabilities.

12 MR. DIGNAN: Could we move Mr. Flynn's table?

13 (Laughter.)

14 MR. DIGNAN: He's a little too close to me.

15 JUDGE SMITH: Well, I have a lot of troubles with the
16 question. In the first place, I have trouble with the
17 statement, how do you avoid potential radiological exposure.
18 You can avoid radiological exposure, but I don't know how you
19 avoid potential radiological exposure. So the statement gives
20 me trouble, and the question is pegged to the statement.

21 Then we're talking about general emergencies. We're
22 not talking about actual releases to the beach popuiation.
23 We're talking about general emergencies as one of the parts of
24 your question. A general emergency is not one where there is a
25 release, but the release can reasonably be expected to exceed

1 EPA protective action guideline exposure models.

2 There is potential for loss of containment and
3 integrity. See, so when you add it all up together, you come
4 out with something I can't link -- you know, I can't link all
5 these factors together in any logical way.

6 MS. SNEIDER: Excuse me, Your Honor.

7 JUDGE SMITH: There are too many potentials involved
8 there.

9 MS. SNEIDER: But a general emergency is, I believe,
10 an emergency where if there is a release --

11 JUDGE SMITH: Well, that wasn't your question. Your
12 question was, in the event of a general emergency.

13 MS. SNEIDER: Okay. In the event of a general
14 emergency resulting from a release of radiation --

15 JUDGE SMITH: No, it goes the other way around.

16 MS. SNEIDER: -- resulting with --

17 JUDGE SMITH: Let's read, so you have fresh in mind
18 what a general emergency is.

19 MS. SNEIDER: What page are you?

20 JUDGE SMITH: I'm on 1-16. I just happen to be
21 there. It's in other places, but I'm on Appendix -- the
22 appendix to, you know, NUREG-0654. And there we learn what a
23 general emergency is.

24 Now if you want to --

25 MS. SNEIDER: Page 1-16?

1 JUDGE SMITH: I beg your pardon?

2 MS. SNEIDER: Page 1-16?

3 JUDGE SMITH: Yes, general emergency.

4 MS. SNEIDER: Right. Which I read here, "Events are
5 in process or have occurred which involve actual or imminent
6 substantial core degradation or melting with potential for loss
7 of containment integrity."

8 JUDGE SMITH: Okay, potential.

9 MS. SNEIDER: "Releases can be reasonably expected to
10 exceed EPA protective action guide exposure levels off-site for
11 more than the immediate site area."

12 JUDGE SMITH: That's right. You've got it.

13 MS. SNEIDER: There's nothing higher than a general
14 emergency.

15 BY MS. SNEIDER:

16 Q Assuming an accident that starts off as classified as
17 a general emergency and results -- does result in a release of
18 radiation off-site, I assume -- are those the presumptions
19 behind that statement?

20 MR. TURK: I'm not sure what statement you are
21 referring to.

22 MS. SNEIDER: "If all potential radiological exposure
23 can be avoided by implementing a timely evacuation," et cetera.
24 "Evacuation may be the preferred protective action."

25 THE WITNESS: (Callendrello) I think the

1 statement -- I don't know what I can add to the statement. It
2 seems to me fairly clear. And that is, if all potential
3 exposure can be avoided by implementing a timely evacuation,
4 evacuation may be the preferred protective action, and that is
5 evacuation completed before there is exposure.

6 I think that maybe we're off on the wrong track in
7 trying to find out what conditions led to this statement. This
8 statement is a statement of fact. Whatever conditions exist
9 that lead to that will lead to the consideration of choosing
10 evacuation as a protective action. And evacuation in that case
11 would be the preferred protective action.

12 THE WITNESS: (Strome) I think it goes back to the
13 basic philosophy that we try -- we would hope in the planning
14 process that we anticipate those actions to preclude
15 radiological exposure.

16 JUDGE SMITH: Is that intended to be even more
17 conservative than the general emergency situation where the EPA
18 protective action guidelines are not expected to be exceeded?

19 You wish to avoid all radiation exposure and not just
20 those which exceed the --

21 THE WITNESS: (Strome) If we could. If we could --

22 JUDGE SMITH: If you can.

23 THE WITNESS: (Strome) Yes.

24 JUDGE SMITH: If evacuation will do it --

25 THE WITNESS: (Strome) Right.

1 JUDGE SMITH: -- that's what you are going to do.

2 THE WITNESS: (Strome) Yes; yes, sir.

3 JUDGE SMITH: Is that what's intended by that
4 statement, or was that included by that statement?

5 THE WITNESS: (Strome) I think it's included in the
6 statement. I think what the statement is trying to say is, if
7 we can move people out before they are exposed to radiation,
8 we'll try to do it. Then you start to hang the dependent
9 variables on that; you know, whether we've got the time, what
10 the meteorological conditions are, what the plant conditions
11 are and so forth.

12 BY MS. SNEIDER:

13 Q Well, if you can't implement a timely evacuation,
14 then you won't avoid all radiological exposure; is that
15 correct?

16 A (Strome) I think that's true. Yes, that's right,
17 assume there's a release.

18 I think we should establish here that general
19 emergency in every single instance does not necessarily lead to
20 a release of radioactive material.

21 Q Well, if you assume for planning basis as NUREG-0654
22 requires that the plume of radioactivity could reach the beach
23 area, and from one to several hours after the onset of accident
24 conditions, you don't have any basis for claiming that the
25 summer beach population would be evacuated from the beach area

1 prior to plume arrival, do you?

2 A (Strome) I don't think we've said that, no.

3 Let me clarify that. Some of them certainly may
4 be -- may have left the beach area, but we may not have
5 successfully moved everyone out.

6 Q Would you have moved the majority of people from the
7 beach area if you assume that the plume arrives there one hour
8 after the onset of accident conditions?

9 A (Strome) Well, you're going to have to give me some
10 more parameters.

11 Q On a summer day, fair weather, two o'clock p.m., if
12 the plume arrives at the beach area one hour after the onset of
13 accident conditions, are you telling me that the majority of
14 the beach population could be evacuated out of the beach area?

15 A (Strome) No, I'm not telling you that.

16 Q Okay. In the State's February 11th response to FEMA,
17 which is at Page 5 of Appendix 1 to your testimony, it is
18 stated, "Evacuation is seen as providing dose savings in nearly
19 all accident scenarios."

20 Is that correct?

21 A (Callendrello) I can't seem to find that. What page
22 is that on?

23 Q Page --

24 A (Wallace) Seven of 47.

25 Q -- five of Appendix 1.

1 A (Wallace) Seven of 47 on the top, or five of --

2 Q Five.

3 A (Callendrello) (Wallace) Five of 47.

4 (Witnesses confer.)

5 BY MS. SNEIDER:

6 Q Did you see that?

7 A (Callendrello) Yes.

8 Q Okay. That wouldn't necessarily be true, would it,
9 in the event of a fast-developing accident of short duration in
10 which a large percentage of the beach population which would be
11 unable to get out of the beach area until after passage of the
12 plume?

13 (Witnesses confer.)

14 THE WITNESS: (Bonds) I don't think we can give an
15 answer to that based on the information that you provided. We
16 would need additional information.

17 BY MS. SNEIDER:

18 Q What additional information would you need?

19 A (Bonds) How wide was the plume? Did the plume go
20 over the beach?

21 Q Assume that the plume reached the beach area.

22 A (Bonds) How big is the plume?

23 Q Well, if we're talking about dose savings, I'm not
24 sure I understand why that's relevant.

25 A (Bonds) Well, if the plume is only a foot wide, then

1 only the people within that one-foot margin are going to be
2 affected.

3 Q Well, then those are the only people that we're
4 concerned about in terms of dose savings, isn't that true?

5 A (Bonds) Dose savings is for the greatest number of
6 people. The greatest --

7 Q The other people wouldn't be affected even if they
8 stayed on the beach.

9 A (Bonds) The greatest --

10 Q Isn't that right?

11 A (Bonds) The greatest -- the intent of the state is
12 to achieve the largest dose savings for the greatest number of
13 people.

14 Q That's correct, but if you're talking about a plume
15 that would only affect a couple of people, even if everybody
16 stayed there, then you're not gaining anything if you move them
17 out either, because even if they stayed there they wouldn't get
18 any exposure; isn't that right?

19 MR. DIGNAN: You're assuming they couldn't move two
20 feet either way as it went by? This the problem, Your Honor,
21 where there are no parameters.

22 MS. WEISS: I think with their dying breath, they
23 could.

24 JUDGE SMITH: Is there a -- do you have a pending
25 question?

1 MS. SNEIDER: Yes, I do.

2 JUDGE SMITH: Would you tell me what it is?

3 MS. SNEIDER: State's testimony or the State's
4 statement on Page 5 of Appendix 1 said, "Evacuation is seen as
5 providing dose savings in nearly all accident scenarios."

6 And my question is, that's wouldn't necessarily be
7 true, would it, in the event of a fast-developing accident of
8 short duration in which a large percentage of the population
9 would be unable to get out of the beach area until after
10 passage of the plume.

11 JUDGE SMITH: Now does your statement that you're
12 challenging, does that include nearly all accident scenarios,
13 which didn't say all accident scenarios; it said nearly all
14 accident scenarios?

15 MS. SNEIDER: That's correct. I'm giving an
16 indication of -- I'm asking them if in this accident scenario
17 that I've just postulated, if that --

18 JUDGE SMITH: All right. Just that accident
19 scenario.

E32 20 (Witnesses confer.)

T33 21 THE WITNESS: (Bonds) Is there a question pending?

22 MS. SNEIDER: Yes.

23 THE WITNESS: (Bonds) I need additional
24 clarification as to what the sequences were, what the
25 conditions were: the width of the plume, how short is short;

1 we need more information before we can give you some idea as to
2 what the dose saving may very well be.

3 BY MS. SNEIDER:

4 Q I'm not asking you to tell me what the dose savings
5 would be. I'm asking you if that would necessarily be true
6 that there would be dose savings in that situation.

7 A (Bonds) Yes, it would be true.

8 A (Strome) But could we just sort of digress here for
9 a second?

10 I think we answered this question yesterday. And as
11 a matter of fact, we read th's portion, if I'm not mistaken,
12 into testimony. I'd have to check on that. But let me
13 reiterate what we did read yesterday if you don't mind,
14 counsel.

15 "The State feels that if a release of radiation,"
16 this is on page 2, or actually Appendix 1, is it Page 4 of 47.
17 "The State feels that if a release of radiation warranted
18 movement of the public, they are much more likely to be
19 afforded meaningful dose reduction by moving out of the EPZ
20 than by moving to a shelter within the EPZ."

21 I think that explains the basic philosophy of what
22 we're trying to accomplish here -- is dose reduction.

23 Q I understand your --

24 A (Strome) So doesn't that --

25 Q -- basic concept that that presumes that people are

1 going to be able to move out of the area quickly enough. And
2 what I've posed here is a hypothetical, what I consider to be a
3 reasonable hypothetical considering average summer day in this
4 beach area, that people won't be able to move out of the area
5 quickly enough before plume passage.

6 A (Strome) All people? Is your parameter that no one
7 can move out of the beach area?

8 Q Well, let me ask you then, how do you define dose
9 savings? If one person is able to move out of the area, is
10 that dose savings?

11 A (Strome) Absolutely. If that individual receives no
12 dose, then that's a dose saving.

13 Q And how --

14 A (Strome) As opposed to staying in the area and
15 receiving a dose.

16 Q And with respect to the size of this transient beach
17 population, how would you define meaningful dose savings?

18 JUDGE SMITH: Have you abandoned your earlier
19 questions? Is that -- this question now supersedes your
20 earlier question?

21 THE WITNESS: (Wallace) I'm not sure what you're
22 getting at in terms of the dose savings. But when we talk
23 about dose savings, we're talking about total population
24 impacting, you know, and not necessarily specific individuals.
25 And dose savings depends upon what the dose is. It depends

1 upon what the amount of the release is. That's why we are
2 having a little trouble with the lack of specificity here.

3 But this indicates there will be dose savings.

4 Evacuation is seen as providing dose savings in nearly all
5 accident scenarios. How much dose savings is realized depends
6 upon the specific scenario.

7 BY MS. SNEIDER:

8 Q Well, assume a hypothetical of a summer weekend day
9 at two o'clock in the afternoon, and an accident initiating as
10 a general emergency with one-half warning time until release.
11 Plume arrives at a point two miles from the beach within a half
12 an hour after the release.

13 Is it the state's position --

14 JUDGE SMITH: Wait a minute. Is that all -- don't
15 you want to say how long it's going to last, the plume?

16 MS. SNEIDER: That's right.

17 BY MS. SNEIDER:

18 Q The duration of the release is two hours.

19 Is it the state's position that under that accident
20 scenario meaningful dose savings would be provided by
21 evacuating the population?

22 MR. DIGNAN: Objection. What is the contents of the
23 plume?

24 JUDGE SMITH: I beg your pardon?

25 MR. DIGNAN: Objection. What's the contents of the

1 plume?

2 If she really wants that number, what is the contents
3 of the plume? What has been determined to be the contents of
4 the plume?

5 JUDGE SMITH: The contents of the plume.

6 MR. DIGNAN: Yes. The radionuclides that are
7 involved in it. I mean when you start trying to get this kind
8 of a calculation of how many rems somebody receives, that's a
9 pretty fundamental thing, Your Honor.

10 JUDGE SMITH: Well, she's trying to go to the point,
11 is there a scenario where, because of the timing and the
12 duration and the radionuclides and the whole bit, where
13 sheltering might not be a better option than evacuation. And
14 although they said nearly all, not all, she wants, as I
15 understand it, to identify that there is in fact situations
16 where sheltering would be the better option, whatever it takes
17 to make it up.

18 MR. DIGNAN: Well, Your Honor, if that is, then I'm
19 going to say asked and answered, not only --

20 JUDGE SMITH: Well, that's what I thought, but
21 nevertheless.

22 MR. DIGNAN: -- what I heard, but it's in the direct
23 testimony. Page 19, they laid out when they thought the
24 sheltering option might be the preferred option.

25 BY MS. SNEIDER:

1 Q Well, I don't think Page 19 exactly laid that out.
2 it says when sheltering would achieve better dose savings. I'm
3 talking about an accident scenario where I'm asking the state
4 whether they believe meaningful dose savings would be provided
5 to the population, and that whether it's likely that meaningful
6 dose savings would be provided to the population in the beach
7 area.

8 A (Strome) In the particular scenario that you
9 outline, counselor, certainly a meaningful dose saving would be
10 effected, if I understood your question, because the plume
11 never reaches the beach.

12 Q How do you assume that?

13 A (Strome) I'm just using the parameters that you gave
14 us.

15 JUDGE SMITH: It's your assumption. You can make it
16 reach the beach or not, whatever you want.

17 BY MS. SNEIDER:

18 Q The plume reaches the beach, how's that? The
19 Seabrook beach, Hampton beach, the plume reaches there.

20 A (Strome) I'm sorry, I just answered the question
21 that you gave us.

22 A (Callendrello) One of the problems I think is the
23 definition and the use of the word "meaningful".

24 The New Hampshire plan is not premised necessarily on
25 the word "meaningful". The intention is to maximize the dose

1 reduction for the population through whatever action it takes,
2 whether it's a precautionary action or a protective action.

3 And as indicated in our testimony, the actions that
4 will be taken will be those that maximize dose savings. In
5 some cases it will be evacuation as the state says, in nearly
6 all cases, but there may be some case where sheltering
7 maximizes dose savings.

8 Q Well, Dr. Wallace, let me ask you this. Is it the
9 state's position that a plan which one person, as Dr. Strome
10 mentioned, could evacuate the area in sufficient time to avoid
11 plume, exposure from the plume, would that plan be an
12 acceptable one to the state?

13 A (Wallace) If only one person could be evacuated?

14 In relation to how many people were exposed? I'm not
15 sure --

16 Q In relation to the entire beach population that can
17 be anticipated to be in the beach area on a summer day.

18 A (Wallace) I don't see any -- I really can't conceive
19 of any situation where only one person would be evacuated in
20 any situation.

21 JUDGE SMITH: Would you -- you have been tilting at
22 this problem for some time now. Why don't you simply outline
23 to the panel and to the Board and everything what your cross-
24 examination objective is, because I really believe that many of
25 these things could almost be stipulated if it is understood

1 exactly what it is you are trying to develop.

2 MS. SNEIDER: What I am -- it's directed at two
3 things. I think it's a very broad statement when it says --

4 JUDGE SMITH: I'm not looking at your cross-
5 examination plan.

6 MS. SNEIDER: Right.

7 JUDGE SMITH: It could be in there, but I don't know.

8 MS. SNEIDER: Evacuation is seen as providing dose
9 savings in nearly all accident scenarios. I think it's a very
10 likely scenario than in the summer time evacuation would not
11 provide meaningful dose savings to the beach population.

12 And I presented a hypothetical which I considered a
13 very reasonable hypothetical for this -- considering this beach
14 area, and the evacuation times we know of in this area.

15 JUDGE SMITH: So you're going back to the Sholly-
16 Beyea testimony, is that it? That even if it's -- is it that
17 you are postulating a scenario in which the radiation is so
18 great, so intense that nothing can happen will have a
19 meaningful reduction; is that it?

20 MS. SNEIDER: Well, I'm not making any assumptions
21 about the intensity of the radiation.

22 JUDGE SMITH: All right. So you're going then to
23 just the ordinary planning basis accident here.

24 MS. SNEIDER: Right.

25 JUDGE SMITH: And meaningful dose reductions.

1 Reductions from what?

2 MS. SNEIDER: Well --

3 JUDGE SMITH: From no protective action at all, or
4 sheltering?

5 MS. SNEIDER: Well, I'm using the word "dose savings"
6 the same way the panel intended that word to be used when the
7 statement was made, or the statement of the New Hampshire.

8 JUDGE SMITH: From any other option.

9 MS. SNEIDER: They said it's seen as providing dose
10 savings.

11 JUDGE SMITH: From any other option; from any other
12 option available to them.

13 MS. SNEIDER: Well, I -- right.

14 JUDGE SMITH: You're quarreling with them. Just tell
15 them what you think.

16 MS. SNEIDER: Dose savings compared to any other
17 option.

18 JUDGE SMITH: That the scenario you described will
19 not provide dose savings compared to any other protective
20 action which might be taken; that's your hypothesis. Now --

21 MS. SNEIDER: And I'm talking about -- and that's
22 where we got into meaningful dose savings, and Dr. Strome had
23 responded, yes, one person could get out. That would be some
24 dose savings.

25 JUDGE SMITH: Well, do you really want to now at this

1 time digress in a litigation to that -- as to the quantity of
2 dose savings, or should we just have dose savings?

3 MS. SNEIDER: Well, my problem is that I agree, it's
4 likely that some people would get out of the beach area, but
5 there comes a point here we have to use the word "meaningful",
6 and I was trying to get some response from the panel on what
7 they would term -- how they would define the term "meaningful
8 dose savings"; what would be sufficient in view of the State of
9 New Hampshire.

10 JUDGE SMITH: Now, but you clearly believe to the
11 contrary. You have something else in mind, and you're not
12 being successful in getting your point out in cross-
13 examination.

14 I'm inviting you to say what you really think might
15 be the situation, and then put it to them and see if they might
16 agree with you or not.

17 BY MS. SNEIDER:

18 Q Well, would you agree that in the event of a fast-
19 developing accident of short duration on a peak summer day in
20 which the plume could reach the beach area within one hour
21 after the initiating event --

22 JUDGE SMITH: And hits the whole area.

23 MS. SNEIDER: And hits the whole area.

24 JUDGE SMITH: And lots of nuclides. And it lasts --
25 how long is it going to ask? A couple of hours.

1 MS. SNEIDER: A couple of hours at a significant
2 portion of the population -- that there would not be dose
3 savings for a significant portion of the population on the
4 beach.

5 THE WITNESS: (Wallace) It's possible that the
6 recommendation in that kind of situation, although we would
7 need more information and have to plug it into this Table
8 1-A, all the parameters, it's possible that the most
9 appropriate recommendation for protective action in that
10 instance would be in fact a sheltering recommendation as
11 opposed to an evacuation recommendation.

12 JUDGE SMITH: Would you --

13 THE WITNESS (Wallace) But once again, that's based
14 on the calculations that we go through, the accident accessors
15 go through which are primarily depicted in that Table 1-A.

16 JUDGE SMITH: But would you agree also with her
17 premise that shelter or evacuate, whatever the case may be, a
18 substantial part of the population would receive doses? There
19 you've got --

20 THE WITNESS: (Wallace) It's possible.

21 JUDGE SMITH: -- big plume.

22 THE WITNESS: (Wallace) It's possible.

23 JUDGE SMITH: Does that satisfy your -- possible; are
24 you happy with possible?

25 MS. SNEIDER: Sure.

1 JUDGE SMITH: I don't think you are. You really want
2 probable, don't you? I mean, slightly.

3 MS. SNEIDER: Okay.

4 BY MS. SNEIDER:

5 Q Would you agree that it's probable that a significant
6 portion of the population would not receive dose savings under
7 those circumstances?

8 A (Wallace) I think I would stay with the possible.

9 (Laughter.)

10 JUDGE SMITH: Okay.

11 Now if we can make her point, let her make it. Now
12 think about the case put to you. It gets there in an hour.
13 It's a big plume. It's a radiation-intensive plume. It's on
14 big Saturday right in the summer. Everyone's there, and it
15 will last for a couple of hours.

16 And what she wants to know is, is it likely that a
17 significant part of the population will receive radiation doses
18 notwithstanding pure protective action, sheltering or
19 evacuation.

20 THE WITNESS: (Wallace) Yes.

21 JUDGE SMITH: It's likely.

22 THE WITNESS: (Wallace) As I said, it was possible
23 and --

24 JUDGE SMITH: Possible tells us nothing.

25 THE WITNESS: (Wallace) -- once again, depending on

1 the parameters. If we expanded a few more on the kind of
2 situation she's given, I'd go to the likely.

3 JUDGE SMITH: Okay.

4 THE WITNESS: (Bonds) But, sir, if there was a
5 protective action recommendation for shelter, and while it may
6 be likely that there is going to be dosage received, it may not
7 be the same dosage as if everybody's standing outside.

8 JUDGE SMITH: That's not the question. That's not
9 the question.

10 THE WITNESS: (Bonds) There would be some dosage.

11 JUDGE SMITH: There would be some. Now she departed
12 from dose savings. See, her question left that. Now she wants
13 to know is there some; you know, is there a significant amount
14 of the population who is still there is going to get some
15 doses.

16 Isn't that right? You did depart from --

17 MS. SNEIDER: I didn't intend to depart from dose
18 savings. If I did, that was inadvertent.

19 JUDGE SMITH: So your question now is --

20 MR. TURK: Your Honor, I want to note that I heard
21 the same thing. I heard her say doses instead of dose savings.

22 MR. DIGNAN: So did I.

23 MS. SNEIDER: I may have. It's late in the afternoon
24 and --

25 JUDGE SMITH: I think you have an entirely different

1 situation now if you're talking about dose savings.

2 MR. TURK: I wonder if the witnesses heard that shift.

3 Maybe it would be good to ask them.

4 JUDGE SMITH: You understand my question to be as I
5 stopped the further explanation, that we're not talking here
6 about -- we were not asking about would there be dose savings
7 under that scenario. The question was, given whatever dose
8 savings there may be, would there be a residual part of the
9 population that, and a significant part of the population which
10 would likely receive doses.

11 THE WITNESS: (Wallace) Yes, there would be.

12 THE WITNESS: (Callendrello) That portion of the
13 population that is in the path of the plume.

14 JUDGE SMITH: But we understand that you had not
15 intended to drop the dose savings aspect of it, and I don't
16 think there is a question put to them now which properly
17 embraces that concept.

18 BY MS. SNEIDER:

19 Q Assuming the same parameters as that last
20 hypothetical, would you agree that a significant portion of the
21 population would receive significant doses, or are likely to
22 receive significant doses?

23 A (Wallace) Again, if I might, what significant means
24 I'm not sure. I also am not sure what -- you know, how much is
25 in there and, you know, what the potential is there.

1 What do you mean by significant?

2 JUDGE SMITH: I don't think we want to go there.

3 MS. SNEIDER: I don't think so either. I'll change
4 the question

5 JUDGE SMITH: Just go on back to where you -- getting
6 too much involved here.

7 BY MS. SNEIDER:

8 Q Assuming the same hypothetical, isn't it likely that
9 the protective measure of evacuation would not result in dose
10 savings for a significant portion of the population?

11 JUDGE SMITH: And this is a short duration.

12 MS. SNEIDER: All the same hypotheticals that you
13 posed --

14 JUDGE SMITH: Everything the same.

15 MS. SNEIDER: -- to the panel.

16 MR. DIGNAN: And I object. This is what I went back
17 to when I was arguing where the Commonwealth wants you to
18 equate dose savings to the individual. You don't make dose
19 savings, or non-dose savings for significant portions of the
20 population. You make a dose saving for the population as a
21 whole.

22 JUDGE SMITH: That's right.

23 MR. DIGNAN: That's not the question that was put,
24 and I object.

25 JUDGE SMITH: All of this is implicit. A dose

1 savings is wherever you find it. It's add them all up. I
2 don't see what you said being the case. I have understood
3 that dose savings, societal dose savings is the --

4 MS. SNEIDER: Well, we're talking about numbers --
5 thousands of people on the beach area, and I think it's
6 relevant at least to how many people might receive significant
7 levels of dose, or what percentage of the population would ave
8 doses, and not whether a few people get off the beach so we can
9 say there's dose savings.

10 MR. DIGNAN: I stand on the objection as the question
11 is put on the grounds of what the definition of dose savings
12 is.

13 JUDGE SMITH: One of the reasons I'm frustrated is
14 I'm convinced that this could almost be stipulated if the right
15 question were out and the right understanding of it, I don't
16 think there would be a dispute among the parties.

17 But I thought it was significant in your hypothesis
18 that you were talking about, a release with all those qualities
19 to it of short duration as compared to one of long duration,
20 but you don't seem to pursue that point.

21 MS. SNEIDER: Well, yes, I was. I mean that was
22 assuming that hypothetical. That's a release of short
23 duration. That's a release that can reach the beach area
24 within one hour after the initiating event; that it covers the
25 entire beach area; all of those parameters were assumed in this

1 hypothetical.

2 I'll try it one more time.

3 (Continued on next page.)

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T/34

1 BY MS. SNEIDER:

2 Q Is it likely that significant dose savings could be
3 achieved, assuming that hypothetical?

4 A (Callendrillo) One of the problems with the
5 hypothetical is that the objective of the plan is not -- that
6 the word significant doesn't show up in either NUREG-0654 or in
7 the New Hampshire plan. What is discussed is the ability to
8 best reduce doses or maximum dose savings; and I think that may
9 be where the Panel in general is having some problems with the
10 question. I know I'm having problems with the question
11 attaching meaning to the word "significant."

12 JUDGE SMITH: I don't think you need the word
13 "significant" in the posture of this question. We needed it
14 when --

15 MS. SNEIDER: Well, I originally asked it as dose
16 savings, that was my original question.

17 JUDGE SMITH: Right.

18 MS. SNEIDER: And Mr. Strome came back and said, yes,
19 I'm sure there would be a couple people that would leave the
20 beach area, so there would be dose savings. Then that's when I
21 got into meaningful dose savings, and we got bogged down.

22 MR. DIGNAN: Your Honor, the problem is, and that's
23 the basis of my objection. In addition to cutting it to
24 population, as the witness just testified, significant,
25 meaningful, none of these words appear not only in the regs or

1 the NUREG or anything else or any of the Commission guidance.
2 But the theory is that you'll come up with a plan that will
3 maximize the dose savings given the situation you've got to
4 deal with.

5 JUDGE SMITH: She understands that.

6 MR. DIGNAN: So the word "significant," Your Honor, I
7 respectfully submit plays no part in a question here.

8 JUDGE SMITH: Not in this question, that's true.

9 See, you've got half of it. Some people -- if some people
10 leave as compared to nobody leaving that is dose savings. Or
11 some people have a protective -- the benefit of a protective
12 action compared to nobody having a benefit of a protective
13 action, even though it's a small number of people, that is dose
14 savings. That is what I understood to be the intent of the
15 answer. Even if we know their names.

16 MS. SNEIDER: Okay.

17 MR. TURK: Your Honor, I have a fundamental problem
18 with the whole line of questioning. I don't know if Ms.
19 Schneider is going to pursue it or not, but you're talking about
20 a plant that's a mile and a half away from the closest -- 1.7
21 miles away from the closest beach area. I assume that the
22 question until now have only been talking about the areas from
23 Great Boars Head to the north, down to the New Hampshire-
24 Massachusetts line to the south.

25 According to my rough ability - my ability to sketch

1 this out roughly, you're talking about a beach area of
2 approximately four miles long in there. And you're talking
3 about a plume that's -- it's more than a 90-degree angle plume.

4 And I think we're looking at a hypothesis here that I
5 don't think is ever going to be able to be proved, and is
6 really way beyond credulity.

7 I mean, it's a hypothesis of a worse case scenario
8 that I think, way off in the realm of the theoretical.

9 JUDGE SMITH: I thought where you were going is that,
10 given a hypothesis for the short duration that there could be
11 more dose savings achieved if there were more shelter.

12 MS. SNEIDER: Well, let me ask another question.

13 BY MS. SNEIDER:

14 Q Would you agree that in a hypothetical rapidly
15 evolving accident with early offsite release, sheltering of the
16 population within the EPZ during the passage of the radioactive
17 plume would provide a greater dose savings to the public than
18 attempting immediately to evacuate?

19 JUDGE SMITH: This is a short duration?

20 MR. DIGNAN: Objection. The question posited the
21 EPZ, not the beach. And you can't have a plume traveling
22 360-degrees at the same time.

23 JUDGE SMITH: I don't understand the objection.

24 (Board conferring)

25 JUDGE SMITH: It escapes me that you had shifted from

1 the beach area to the entire EPZ.

2 MS. SNEIDER: I can change the question, Your Honor,
3 and I'll rephrase that.

4 BY MS. SNEIDER:

5 Q Would you agree that in a hypothetical rapidly
6 evolving accident with early offsite release, sheltering of the
7 population within the beach area during the passage of the
8 radioactive plume would provide a greater dose savings to the
9 public than attempting immediately to evacuate?

10 JUDGE SMITH: Now, do you want a time limit on your
11 plume passing over?

12 MS. SNEIDER: Duration of two hours peak summer day.

13 THE WITNESS: (Bonds) It could provide, but the
14 decision is going to be based upon a number of factors, that is
15 the decision to choose between the protective action of
16 evacuation or the protective action of sheltering.

17 If all the factors came out in terms of sheltering,
18 then it is shelter that maximizes the greatest -- maximizes the
19 dose savings, as the greatest dose savings to the greatest
20 number of people.

21 So, yes, it could. If the recommendation comes out
22 as evacuation, then all of the factors, say, that that is where
23 the greatest dose savings is, then the answer is, no, it
24 wouldn't. It's relative to the circumstances that are given at
25 the time; and that can't be done without more very detailed

1 specific information.

2 JUDGE SMITH: Would you indicate the factors which
3 you believe favor sheltering for the beach population in a
4 short -- plume of short duration on a peak beach day with the
5 hypothesis that she gave you, you know, that it's a big plume,
6 it's going to involve a big part of the beach, and it's going
7 to exceed the PAGs; and what factors would indicate sheltering?

8 MR. DIGNAN: Your Honor, this is not an objection to
9 the Chair's question, I don't like to do that, but part of the
10 problem I'm having with the prior questioning and I really am
11 with that one. What I think Your Honor is positing there is
12 something that sometimes is called the "puff release."

13 And that's okay. I understand a puff release. But
14 the problem I've never been able to get through my head, and
15 I'd like a foundation laid by the question first is, how the
16 planner, how the decisionmaker knows that in fact he's got a
17 puff release headed for him before --

18 JUDGE SMITH: You can include that.

19 MR. DIGNAN: -- before it happens. This nice
20 theoretical plume we've been talking about that lasts only two
21 hours, that could happen I agree. But the question is, does
22 the guy who's making the decision at time zero know in fact
23 that that plume is only going to last two hours.

24 JUDGE SMITH: Well, it may be in here. It may be
25 already in here and I don't know where it is. But -- that they

1 say, sheltering could be recommended when it would be the most
2 effective option in achieving maximum dose reduction, okay.

3 MR. DIGNAN: It's inaccurate.

4 JUDGE SMITH: All right. Now, what are those
5 factors?

6 MR. DIGNAN: That question is fine. I have no
7 problem with that.

8 JUDGE SMITH: All right. And the answer --

9 MR. DIGNAN: I've heard the question.

10 JUDGE SMITH: -- but I wanted to have some
11 relationship to what we're talking about, the short duration
12 release.

13 MR. DIGNAN: The short duration release I understand,
14 Your Honor, but the one question that hasn't been asked here as
15 a foundation to that is, we're asking somebody to decide, as I
16 understand these questions to the Panel that have gone from the
17 Attorney General's, we're asking a bunch of questions of when
18 are you going to select sheltering versus evacuation; that's
19 fine as far as it goes.

20 But what has to be kept in mind is that when a
21 decision is made, the decisionmaker doesn't necessarily know
22 it's a short term release. And we haven't asked the foundation
23 questions to that.

24 JUDGE SMITH: That's no problem. But he's going to
25 make some assumptions. He may not know, but he's going to make

1 some assumptions.

2 MR. DIGNAN: Well, I think that question should be
3 put, before Your Honor assumes that so, too.

4 JUDGE SMITH: I don't assume anything. They can just
5 tell us what the factors are. They can say. If we assume it's
6 going to be a short term release as the hypothetical had it,
7 then they can factor that in.

8 If they don't -- the fact is, they can't tell that's
9 another matter. But the hypothetical that they've been given
10 is that the planner knows and it's going to be a big one and
11 it's going to be short term and it's going to be all those
12 things she said, but she can't seem to get them to tell her
13 that sheltering is the favored protective action under those
14 circumstances.

15 So having tried that much of the afternoon I'm
16 suggesting we go the other way and for them to tell her what
17 factors would favor sheltering, if I understand what is
18 happening, which I have no confidence in at all.

19 (Laughter)

20 THE WITNESS: (Bonds) Some of the factors which may
21 predispose the decisionmakers towards sheltering. If I
22 understood your hypothetical this is the big release.

23 JUDGE SMITH: Yes, it's the biggie.

24 THE WITNESS: (Bonds) PAGs are exceeded.

25 JUDGE SMITH: That's right, PAGs are exceeded, and

1 you have big everything, big Saturday, everything.

2 THE WITNESS: (Bonds) Then the key factors in terms
3 of, that may throw the thing toward sheltering are going to be
4 the nature of the release itself. There is no particulate
5 involved in it. Nothing is going to sift out of the clouds,
6 it's over and gone. When it's gone, it's gone.

7 JUDGE SMITH: So you're not going to have a
8 degradation of sheltering factors?

9 THE WITNESS: (Bonds) That's right. If a sheltering
10 is going to be for a limited duration, that is, you're not
11 putting people some place where they're not going to be able to
12 live for a short period of time, the hotter the day, the
13 shorter period of time, the larger the crowd, the shorter
14 period of time kind of factors.

15 And you're not going to bring them back out through
16 ground shine -- through the particulates on the ground, ground
17 shine I guess it is. Then the decisionmakers may seriously
18 consider that sheltering is the best way to go. If you have
19 severe doubts as to whether or not people are going to
20 eventually have to be evacuated out of the plume or out of the
21 contaminated area, then the best step is to go ahead and move
22 them out in the first place, if you have a particular release.
23 If you have any doubts at all as to the ability to shelter on
24 a -- and you don't have any idea how long it is, if the plant
25 conditions are say, two hours, it may be four, it could be

1 three, we don't know; then in the favor of not knowing is going
2 to throw you the other direction, we'll go with the devil we
3 know than the devil we don't.

4 BY MS. SNEIDER:

5 Q Would you agree with the State of New Hampshire's
6 response to Attorney General Shannon's interrogatory 9 dated
7 March 21st, 1988, which is sworn to by Mr. Strome, which stated
8 in essence that sheltering may afford a greater dose savings
9 than evacuation if evacuation cannot be completed prior to
10 release; and further that sheltering, for example, may be the
11 appropriate protective action for a puff release, a gaseous or
12 gaseous in particulate release of less than two hours duration?

13 A (Bonds) Could we get a copy of that please.

14 (Witnesses conferring)

15 MR. TURK: Your Honor, do the witnesses adopt the
16 testimony on -- response to question nine on page eight.

17 MS. SNEIDER: Whether they still agree with that
18 response.

19 MR. DIGNAN: Well, I don't think you read the
20 response. Am I wrong?

21 MS. SNEIDER: I summarized, but I -- I quoted --

22 MR. DIGNAN: You read a portion of the question. You
23 read the quote from the question.

24 MS. SNEIDER: The response agreed with it. And then
25 I read an additional quote from the response. The question

1 was, do you agree with this, and then they said, yes. And then
2 I read the additional --

3 MR. DIGNAN: The question is, do you still contend
4 that sheltering of the beach population may be the appropriate
5 protective action for puff release of less than two hours
6 duration?

7 The answer was: yes, as stated in the same paragraph
8 from which the quote is taken, quote: "Sheltering which can be
9 implemented quickly in this case may afford a greater dose
10 savings than evacuation, if evacuation cannot be completed
11 prior to release," unquote.

12 Now, that was the question and the answer.

13 MS. SNEIDER: Okay. I'm asking if they agree that
14 sheltering may afford a greater dose savings than evacuation if
15 evacuation cannot be completed prior to release. And further
16 if they agree that sheltering, for example, may be the
17 appropriate protective action for a puff release, a gaseous or
18 gaseous and particulate release of less than two hours duration.

19 THE WITNESS: (Wallace) Yes.

20 BY MS. SNEIDER:

21 Q And, Mr. Callendrello, would you also agree with
22 that?

23 A (Callendrello) Yes, I would. Again, some practical
24 cautions on a puff release and that is, a puff release is a
25 release that is difficult to determine the duration of in

1 advance unless you've got a situation where you have got a
2 control venting of the plant, it's difficult to know just how
3 long that puff release will last.

4 And in reading this I may -- I think I'd be biased
5 more towards recommending evacuation if you just don't know how
6 long a release is going to be.

7 But in general I agree with that statement. If you
8 know it is two hours duration, I would agree with that.

9 MS. SNEIDER: I'd like to offer those interrogatories
10 and response into the record now.

11 JUDGE SMITH: Are there objections?

12 MR. DIGNAN: I don't understand what we're offering.

13 Is it just --

14 JUDGE SMITH: The interrogatory.

15 MR. DIGNAN: Just question nine and answer nine?

16 MS. SNEIDER: That's correct.

17 MR. DIGNAN: How are we going -- are we going to bind
18 this into the record at this point or what?

19 MS. SNEIDER: Yes.

20 JUDGE SMITH: All right, that's satisfactory. That
21 has been adopted by the panel as testimony.

22 MR. TURK: Is it just -- it's just that one page
23 then, as I understand it.

24 JUDGE SMITH: I haven't seen it. It's just that one
25 question and answer.

1 MR. BISBEE: If I may, Your Honor, wasn't that read
2 into the record fully and then the Panel adopted it; do we need
3 to put another page in?

4 JUDGE SMITH: I don't know why it's needed.

5 MR. DIGNAN: The Panel has not adopted it.

6 JUDGE SMITH: They agreed with it.

7 MR. DIGNAN: The state witnesses have wholly agreed
8 with it. Mr. Callendrello indicated a caution that went with
9 it. So if all we're doing is offering it to get what the Panel
10 as a whole has said, it doesn't have any value because what the
11 Panel has said is on the record.

12 JUDGE SMITH: The Panel --

13 MR. DIGNAN: If it's being offered as an admission of
14 the state somehow, I've got no problem, and that's the reason I
15 want it bound into the record the way it is, because it's the
16 state's answer to an interrogatory.

17 JUDGE SMITH: Well, nobody disagrees with it, even
18 Mr. Callendrello does not disagree with it, he just qualifies
19 it.

20 MR. DIGNAN: That's a pretty important qualification,
21 Your Honor.

22 JUDGE SMITH: Well, no one disputes it either. Have
23 your will with this, whatever you wish. The person that speaks
24 the loudest is going to win.

T/35 1 It simply doesn't matter.

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(The State of New Hampshire's
Response to Attorney General
James M. Shannon's offsite
EP Interrogatories and
Request for the Production
of Documents, Interrogatory
No. 9 and response follows.)

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Nuclear Regulatory Commission

In the Matter of) Docket Nos. 50-443-OL
) and
 PUBLIC SERVICE COMPANY OF) 50-444-OL
 NEW HAMPSHIRE) (Off-Site Emergency
(Seabrook Station, Units 1 and 2) Planning Issues)
) March 24, 1988

THE STATE OF NEW HAMPSHIRE'S RESPONSES TO
ATTORNEY GENERAL JAMES M. SHANNON'S OFF-SITE EP
INTERROGATORIES AND REQUEST FOR THE PRODUCTION OF DOCUMENTS
(SET NO. 3)

9. On page 22 of Applicants' Direct Testimony No. 6
(Sheltering), dated September 10, 1987, it is stated with respect to
the beach population, that:

Sheltering for example may be the appropriate protective
action for a puff release -- a gaseous or gaseous and
particulate release -- of less than two hours duration.
(Manual of Protective Action Guides, U.S. EPA, p. 129.)

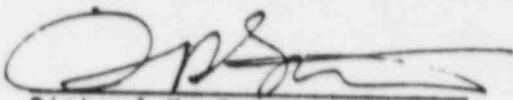
Do you still contend that sheltering of the beach population may be
the appropriate protective action for a puff release of less than two
hours duration?

Response to Interrogatory No. 9

Yes. As stated in the same paragraph from which the quote is
taken, "[s]heltering, which can be implemented quickly, in this case
may afford a greater dose savings than evacuation if evacuation
cannot be completed prior to release."

SIGNATURES.

I, Richard H. Strome, being first duly sworn, do depose and say
that the foregoing answers are true, except insofar as they are based
on information that is available to the State but not within my
personal knowledge, as to which I, based on such information, believe
them to be true.



Richard H. Strome
Radiological Emergency Planning Director
Office of Emergency Management

Sworn to before me this 25th
day of March, 1988:

Susan J. Clarke
Notary Public
My Commission Expires: July 7, 1991

1 MS. SNEIDER: Your Honor, since it's one minute to
2 5:00 I think it's a good point to break.

3 JUDGE SMITH: All right.

4 Anything further before we adjourn?

5 MR. TURK: I didn't hear the last remark, is Ms.
6 Sneider finished?

7 JUDGE SMITH: No, she wants to break for the day.

8 Anything further before we adjourn?

9 MR. BACKUS: I understand everybody knows we got an
10 order from the Appeal Board today. I think that may make it
11 right to consider when we might discuss the issue of the
12 subpoenas. I don't know when you want to do that, but I just
13 raise that as something we could do some time this week.

14 JUDGE SMITH: Well, I did indicate that since this
15 has come in, we'll have to set a schedule for the resolution of
16 that. Unfortunately, I did not expect to have that suspension
17 lifted this week and I'm not common nor is Judge Linenberger
18 come -- all we really would like to have, to make a definite
19 ruling on each and every subpoena in the whole dispute.

20 Perhaps we can in a general way later this week or
21 whenever, outline the general direction in which we think
22 the -- where lies a solution to at least part of the problem.
23 That would at least allow people to make a better planning for
24 the following week. I think we could probably do that.

25 MR. BROCK: Your Honor, and it would be my

1 understanding that guidance would encompass the motion to
2 compel the answers from Ed Thomas.

3 JUDGE SMITH: Well, yes. All we intend to do, and
4 we've discussed this with Judge Harbour before he left, and all
5 we intend to do is go through the history of what has happened
6 and go through the change and explain some of our concerns
7 about the initial testimony and about the testimony that is
8 proposed, and problems we have with the discovery requests and
9 see if we can't come out somewhere, at least, satisfies the
10 needs of -- at least goes farther in satisfying the needs of
11 the interveners and the Board. We have our own problems with
12 the testimony. We have our own problems with the quality of
13 the record that has been presented to us and has been offered
14 to us, separate from the cases of the interveners.

15 But our concerns coincide with, not only just
16 interveners, but with Mr. Dignan's concerns. We have concerns
17 about Mr. Thomas' testimony. We have concerns about the
18 proffer of testimony. We have concerns about many things that
19 are threaded through the presentation.

20 And we believe that there should be, as generally, on
21 behalf of the government parties here a greater revealing of
22 what has happened.

23 MR. BACKUS: I only raise it, Your Honor, because as
24 you know I've not been here for part of the day and I do have
25 some conflicts, and if the Board was interested in discussing

1 this on a preliminary basis at all and could give us some idea
2 of when we could do that it would assist me in scheduling that,
3 so I could be sure to be here at that time.

4 MR. TRAFICONTE: Also, Your Honor, it is possible, I
5 believe, in light of conversations that we've had with Mr.
6 Dignan that we might be ready in light of the lifting of the
7 stay. We could be ready to turn to FEMA at the end of this
8 week.

9 JUDGE SMITH: Well, I'm just not prepared, I'm just
10 not prepared to say subpoena so-and-so and not so-and-so and,
11 yes and no. I tell you, you're not going to get them all, but
12 you're going to get some of them. And maybe we can take it up,
13 I don't know.

14 We would also like to get a resolution of it early.
15 So, we'll try. If we come to a point where -- I don't have the
16 transcripts or anything, I'm just simply going by memory.

17 MS. WEISS: Neither do we. And I was just going to
18 say, you know, I've left all my depositions that are all marked
19 up back in my office and really not prepared to get into much
20 depth about arguing on those subjects either. I mean, I --

21 JUDGE SMITH: Well, maybe we can give it a shot and
22 see if our general principles might -- the general guidance and
23 a general description of our concerns might break a log jam
24 here, I don't know.

25 MR. FLYNN: Your Honor, I would like to suggest that

1 it would. I think it's appropriate to approach this in stages,
2 although I'm not suggesting that we do it this afternoon.
3 Nevertheless, if I were able to understand better what your
4 concerns were and what your perceptions were of the needs of
5 the other parties, it might be that we could negotiate
6 something.

7 JUDGE SMITH: I really doubt whether you're ever
8 going to negotiate the problem away. But we may come closer to
9 it.

10 Well, let's set it up for whenever the pleasure of
11 the parties. I'm not going to be -- we're not going to be any
12 better prepared Thursday than we are Wednesday or Friday. So
13 what are your requirements, Mr. Backus?

14 MR. BACKUS: It may not be possible, but I was just
15 saying, if you wanted to schedule a time, any time that you
16 expect to be here this week, if you want to address it this
17 week. you could give us some notice I'd make an effort to be
18 here and prepared.

19 JUDGE SMITH: Tomorrow at 1 o'clock; is that all
20 right?

21 MR. DIGNAN: Before you do that, Your Honor, I'd
22 really like to get through this Panel.

23 JUDGE SMITH: All right.

24 MR. DIGNAN: We're not making progress and I'd like
25 at least to finish my Panel and get them excused and then do

1 other things.

2 JUDGE SMITH: There are nine people sitting here and
3 I think that -- what do you think, Ms. Sneider, how much more
4 time are you going to need?

5 MS. SNEIDER: Well, assuming that the rest of it
6 won't take as -- be as tedious getting through as this portion
7 has been and that tomorrow should do it.

8 JUDGE SMITH: Then there will be --

9 MS. SNEIDER: Certainly hope --

10 JUDGE LINENBERGER: All of tomorrow will be required,
11 do you think?

12 MS. SNEIDER: Well, earlier I would have told you
13 just the morning. In light of the way things have bogged down
14 this afternoon, it's possible that it would take all of
15 tomorrow.

16 JUDGE SMITH: Well, I can tell you right now for
17 planning purposes, we're going to want Bores and Lazarus, we're
18 going to want them to testify. We're going to want some of the
19 decisionmakers for FEMA, I don't know which ones. We're
20 certainly going to want McLaughlin. We're going to want
21 probably Peterson. We'll have to discuss it.

22 We probat will want the executive director of
23 operations to designate a person who can testify concerning the
24 meeting between FEMA and NRC.

25 We've come to the tentative conclusion that public

1 confidence in this record is going to be enhanced by exploring
2 these conferences. And that the executive privilege is not so
3 strong as to outweigh need, and in fact we've somewhat reversed
4 our position, but we'll go into that in more detail as we take
5 it a point at a time and explain how we arrive at that.

6 We think that our interest now, not only must we have
7 a record upon which we can -- consisting of reliable probative
8 and substantive evidence from which we can issue a decision, we
9 are now interested in the public confidence in the record.

10 MR. TURK: Your Honor, for clarification, I assume
11 when you're talking about a meeting between FEMA and NRC, you
12 mean the January 19th meeting which Mr. Thomas claimed was the
13 one where there was a war-of-the-world type.

14 JUDGE SMITH: That's right. Yes. This is for
15 planning purposes. We're not ordering it yet; we're just
16 telling you this is the way we're looking down the road so that
17 people can be put on notice.

18 MR. DIGNAN: Is the Board planning to recall Mr.
19 Thomas?

20 JUDGE SMITH: It's possible. It's quite possible.
21 We'll take it up a point at a time.

22 MR. FLYNN: Could I ask whether you were thinking in
23 terms of having the policymakers of FEMA deposed before you
24 resume the hearing?

25 JUDGE SMITH: I don't know, that's part of the

1 problem. That's part of the problem. That one of the things
2 we would like to achieve would be perhaps leapfrogging that
3 process, if it can be done; I don't know. Realizing that the
4 preference for the parties to depose people before they appear,
5 and depositions may eliminate the need for appearance.

6 MR. DIGNAN: Just so there's no misunderstanding, I
7 have no preference. None. Of any witness being deposed
8 separately from appearing. I would prefer that all of these
9 witnesses, to the extent the Board decides they're going to
10 appear in front of the Board with Board control on everything.

11 I experienced the situation down in Boston where a
12 witness was brought in third hand hearsay was allowed to be
13 delivered and then there was a press conference; and I just as
14 soon avoid that again. Let's get it all out in the public
15 record so the press can hear it as it goes, so the Board can
16 control it as it goes.

17 And so to the extent that the Board is under the view
18 that the applicant, at least, feels that they want depositions
19 before testimony the applicant does not. I want it on the
20 record that I'm hearing the questions for the first time with
21 the Board here to rule on whether the questions are
22 appropriate. That's the applicant's preference.

23 JUDGE SMITH: Well, these are arguments that we will
24 take up and hear 1 o'clock tomorrow, it doesn't seem to be very
25 reasonable.

1 The only reason we're having this discussion this
2 evening is because I realize the week is eroding already and
3 I'm just sharing general impressions, any one of which is
4 arguable and reversible when we get a chance. I doubt if
5 you're going to persuade us to change our basic concern with
6 it.

7 Whether we take depositions or not in the off week or
8 some other time will be another matter. But we want just a
9 better ventilation of what has happened.

10 MR. TRAFICONTE: Your Honor, a different point on the
11 scheduling, the interveners witnesses, could the Board indicate
12 when it might make a ruling on the Sholly-Beyea because that
13 would involve coordination of witnesses?

14 JUDGE SMITH: Yes. Well, of course, as you point out
15 Sholly-Beyea is rebuttal, rebuttal to FEMA and we have, you
16 know, we're going to --

17 MR. TRAFICONTE: That's fine.

18 JUDGE SMITH: -- express some problems we have with
19 FEMA. I might say, some of our problems with FEMA testimony is
20 -- and, of course, we don't know this, understand, some of our
21 concerns are not even on record before us. And we don't even
22 have on record before us Dr. Bores and Mr. Lazarus' testimony.
23 All we know is what we read in the motion.

24 We do have concerns with what we've learned through
25 discovery. The allegation that FEMA's technical basis was

1 created and then they went around looking for witnesses to
2 support it. I mean, I assume that that was covered on
3 depositions. We don't know to what extent the depositions
4 resolved some of the problems.

5 There is so much we don't know. So some of the
6 Board's concerns may evaporate after we get down to an
7 argument, I don't know.

8 MR. TURK: Your Honor, I would point out that one of
9 the things you don't know is what the other FEMA witnesses who
10 were deposed said in juxtaposition to what Mr. Thomas said.

11 So that maybe that some of the witnesses FEMA has
12 already designated can clear up many if not all of the
13 questions that the Board has on its mind.

14 JUDGE SMITH: There's a lot -- there's so much we
15 don't know, and that's one of the reasons we -- we just see the
16 waves and we don't see the water, the depths; that's one of the
17 reasons why we decided that we don't want to resolve it on a
18 witness-by-witness, motion-by-motion basis. We want to sit
19 back and take a look at the entire picture of what is unfolded
20 and see if we can come up with a more reliable record, a better
21 balanced one.

22 It has been presented to us in too narrow context in
23 each instance for us to be able to grab the whole problem and
24 resolve it the way it should be, and that's what we're going to
25 try to do.

1 MR. BROCK: Your Honor, if I could make one more
2 point about scheduling witnesses. The witnesses appearing for
3 Hampton, they were here today, they were planning to come back
4 tomorrow. I understand now that the crosses on this Panel will
5 go, at least, through tomorrow.

6 My problem is, Representative Hollingworth cannot be
7 here Thursday afternoon or Friday. Mr. Dignan has indicated
8 his cross on them would be brief. And I'm just --

9 JUDGE SMITH: Can you stipulate to her testimony?

10 MR. BROCK: Stipulate it in?

11 JUDGE SMITH: Yes.

12 MR. BROCK: I haven't talked to the people, I don't
13 know.

14 JUDGE SMITH: Well, she has an awful lot of hearsay
15 in there, as I recall, and it's probably not possible to
16 stipulate it.

17 MR. DIGNAN: It's nothing --

18 JUDGE SMITH: All right.

19 MR. BROCK: So, my point would be, Your Honor, that
20 perhaps it might be necessary to call her out of turn, if
21 that's appropriate, perhaps Thursday morning.

22 JUDGE SMITH: Well, that is the type of thing that we
23 usually ask that you take up with the other parties first. We
24 certainly are willing to do that.

25 MR. BROCK: Thank you, Your Honor.

MR. TURK: Your Honor, could we also get an
2 indication from Mass. AG as to which of their witnesses will go
3 on first and what the order of appearance will be, so we can
4 prepare accordingly.

JUDGE SMITH: Well, I would have thought that you
5 would have already known that.
6

MR. TURK: We haven't our discussion.
7

JUDGE SMITH: Yes. You should have. Routinely the
8 parties should have a discussion early in every week as to what
9 is happening.
10

MR. TRAFICONTE: Just to come back again for point of
11 clarification, I take it then the Sholly-Beyea, whenever the
12 Board makes a decision that testimony is going to be seen as
13 rebuttal prefiled.
14

JUDGE SMITH: That's how you offered it.
15

MR. TRAFICONTE: Okay. It is. That's how we offered
16 it.
17

JUDGE SMITH: Yes. Let's say, that we could not
18 ourselves, reading that testimony, come up with any reason to
19 change our earlier ruling.
20

MR. TRAFICONTE: Right.
21

JUDGE SMITH: As we sit here this afternoon we still
22 haven't identified it, but the point you've made we want to
23 read them and reconsider. We still, as we said before, don't
24 pay cash for the plane tickets, you know.
25

1 MR. TRAFICONTE: Yes.

2 (Laughter)

3 JUDGE SMITH: But we'll get to that as soon as we
4 can.

5 MR. TRAFICONTE: I understand that, but in a sense it
6 is dependent upon what final form the FEMA position takes. And
7 it, clearly in light of the Board's indication, FEMA may have
8 other or more or different testimony that eventually forms its
9 position --

10 JUDGE SMITH: Perhaps what we can do is approach
11 their testimony on the assumption that the technical basis will
12 unfold as proposed. And I don't see any reason why that
13 shouldn't be the case. But we were concerned about the
14 allegation that testimony was first prepared and then they
15 shopped for a sponsor. That was -- I inferred that from
16 somebody's argument somewhere along the line. And that is
17 something I thought that should be looked at.

18 Of course, I understand that that would be addressed
19 when they appeared, too. So that is a minor need.

20 Anything further?

21 MR. DIGNAN: Yes, Your Honor, could I get an idea, I
22 understand the Attorney General has another day's worth, is
23 there other extensive cross-examination of this panel?

24 MS. WEISS: Right now I wouldn't be more than an
25 hour, probably half an hour.

1 MR. BROCK: I'd say about half an hour.

2 MR. BACKUS: I'm going to have to read today's
3 transcript to see what was covered when I wasn't here.

4 MR. DIGNAN: Not much.

5 (Laughter)

6 JUDGE SMITH: I remain with my conviction that if the
7 parties and the panel understood what Ms. Sneider's objectives
8 were in her cross-examination we could get there much faster.
9 I don't think she's trying to -- it's difficult -- it's a
10 difficult area, it's difficult for all of us to understand.
11 But I don't think that there is that much factual difference.
12 I think that they can make their case with admissions made by
13 this panel consistent with their view of the case.

14 I really don't think that given the right of each
15 party to have their approach to the issues, I don't think
16 there's that much factual difference between you. And I sort
17 of hope that you could -- I don't know, just give a shot at
18 maybe some stipulations.

19 MS. SNEIDER: I will.

20 JUDGE SMITH: All right. Anything further this
21 evening?

22 (No response)

23

24

25

1 JUDGE SMITH: All right, we're adjourned until
2 tomorrow 9 o'clock.

3 (Whereupon, at 5:16 p.m. the hearing was adjourned to
4 reconvene at 9:00 a.m. tomorrow morning, Wednesday, May 4,
5 1988, at the same place.)

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1 CERTIFICATE
2

3 This is to certify that the attached proceedings before the
4 United States Nuclear Regulatory Commission in the matter of:
5 Name: PUBLIC SERVICE COMPANY OF
6 NEW HAMPSHIRE, et al.
7 Docket Number: 50-443-OL, 50-444-OL
8 Place: CONCORD, NEW HAMPSHIRE
9 Date: May 3, 1988
10 were held as herein appears, and that this is the original
11 transcript thereof for the file of the United States Nuclear
12 Regulatory Commission taken electronically by me and,
13 thereafter reduced to typewriting by me or under the direction
14 of the court reporting company, and that the recording is a
15 true and accurate record of the foregoing proceedings.

16 /S/ Kent Andrews

17 (Signature typed): KENT ANDREWS

18 Official Reporter

19 Heritage Reporting Corporation

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