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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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In the matter of: :
METROPOLITAN EDISON COMPANY :
(Three Mile Island Unit 1) :
-----:

Docket No. 50-289
(Restart)

25 North Court Street,
Harrisburg, Pennsylvania

Friday, April 17, 1981

Evidentiary hearing in the above-entitled
matter was resumed, pursuant to adjournment, at 9:00 a.m.

BEFORE:

- IVAN W. SMITH, Esq., Chairman,
Atomic Safety and Licensing Board
- DR. WALTER H. JORDAN, Member
- DR. LINDA W. LITTLE, Member

Also present on behalf of the Board:

MS. DORIS MORAN,
Clerk to the Board

APPEARANCES:

On behalf of the Licensee, Metropolitan Edison
Company:

- GEORGE F. TROWBRIDGE, Esq.
- ROBERT ZAHLER, Esq.
Shaw, Pittman, Potts and Trowbridge,
1800 M Street, N.W.,
Washington, D. C.

8104210220

1 On behalf of the Commonwealth of Pennsylvania:

2 MICHELE STRAUBE, Esq.
3 Assistant Attorney General,
4 505 Executive House,
5 Harrisburg, Pennsylvania

6 On behalf of Newberry Township TMI Steering
7 Committee:

8 JORDAN E. CUNNINGHAM, Esq.
9 Fox, Farr and Cunningham
10 2320 North Second Street
11 Harrisburg, Pennsylvania

12 On behalf of Anti-Nuclear Group
13 Representing York:

14 GAIL BRADFORD

15 On behalf of the Regulatory Staff:

16 JAMES TOURTELLOTTE, Esq.
17 JOSEPH R. GRAY, Esq.
18 Office of Executive Legal Director,
19 United States Nuclear Regulatory Commission
20 Washington, D. C.
21 DANIEL P. COSGROVE, Esq.
22 Assistant General Counsel for FIRE
23 Federal Emergency Management Agency
24 Washington, D.C. 20472
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C O N T E N T S

<u>WITNESS:</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u>	<u>RECROSS</u>	<u>BOARD</u>	<u>CROSS ON BOARD</u>
Michael S. Pawlowski,						
Frederick J. Bath,						
Vernon E. Adler						
By Ms. Straube-resumed		19,375				
By Ms. Gail Bradford		19,383				
By Mr. Zahler		19,387				
By Ms. Gail Bradford		19,455				
By Mr. Cunningham		19,460				
By Ms. Gail Bradford		19,463				
By Dr. Jordan						19,473
By Mr. Gray			19,474			
By Dr. Joran						19,475

E X H I B I T S

<u>NUMBER</u>	<u>IDENTIFIED</u>	<u>RECEIVED</u>
Board Physical Ex. A thru E	19,373	19,373

P R O C E E D I N G S

(8:32 a.m.)

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2
3 CHAIRMAN SMITH: All right. We had indicated
4 before that they were going to receive into evidence as
5 Board Physical Exhibits U.S.G.S. maps that have been on
6 display in the hearing room. And there are no objections.
7 So we will do it this morning.

8 Board Physical Exhibit A is a Three Mile Island
9 nuclear power station, Middletown, Pennsylvania -- 50-mile
10 radius area, population density 1977 estimate by census
11 county subdivision, July 1980, U.S.G.S.

12 Board Physical Exhibit B is Land Use and Land
13 Cover, 1972, Harrisburg, Pennsylvania, U.S.G.S.

14 Board Physical Exhibit C is computer-plotted map
15 of land use and land cover, Three Mile Island and vicinity,
16 with census tracts, U.S.G.S.

17 Board Physical Exhibit D is Three Mile Island
18 nuclear power station, Middletown, Pennsylvania, 20-mile
19 radius area, population by density, 1977 estimate, by census
20 county subdivision, July 1980, U.S.G.S.

21 Board Physical Exhibit E is Three Mile Island
22 nuclear power station, Middletown, Pennsylvania, ten-mile
23 radius area, July 1980, U.S.G.S.

24 (The documents referred to
25 were marked Board Physical

1 Exhibits A through E
2 for identification and
3 received in evidence.)

4 CHAIRMAN SMITH: Is there any preliminary
5 business?

6 MR. GRAY: Mr. Chairman, I have obtained a limited
7 number of good readable copies of SECY-80-257 and
8 SECY-80-257A, which I believe the Board indicated it would
9 be taking official notice of for the purpose of background
10 information.

11 CHAIRMAN SMITH: That is fine. I propose we bind
12 it into the transcript. And if you want to provide the
13 copies, we will do it now if it is convenient.

14 Let's see, these SECY papers are a little longer
15 than I thought they were. I think before we act on this, I
16 think we had better take a look at this to see if all of
17 this is really required. So we will come back to that.

18 Anything else before we go back to the testimony?

19 Ms. Bradford?

20 MS. GAIL BRADFORD: Yes, sir. I would like to
21 have a way of getting into evidence somehow that the -- that
22 more people evacuated than those -- than just those who were
23 advised to at the time of the accident last year. There are
24 scads of documents, but there have not been any witnesses
25 who would say so.

1 CHAIRMAN SMITH: How do you propose to do it?
2 What would be your preference?

3 MS. GAIL BRADFORD: Well, it would seem to me the
4 Board might take official notice of some page of the NUREG
5 study by Mountain West, for example, which just gives
6 tables.

7 CHAIRMAN SMITH: Have you discussed it with Mr.
8 Zahler or Mr. Gray?

9 MS. GAIL BRADFORD: No, sir, I have not.

10 CHAIRMAN SMITH: Or Ms. Straube? I suggest you do
11 that and point out to them what you want and see if there
12 are objections. If there are none, well, then you have no
13 problem. If there are, then you can come back to the Board
14 and we will see what help or what is appropriate.

15 MS. GAIL BRADFORD: Thank you.

16 CHAIRMAN SMITH: The Mountain West study was
17 commissioned by the NRC?

18 MR. GRAY: Yes, sir.

19 CHAIRMAN SMITH: Yes. Talk to them about it. I
20 think you will probably have some cooperation.

21 Anything else?

22 (No response.)

23 CHAIRMAN SMITH: All right, Ms. Straube, I think
24 we will return to your cross examination on question 15.
25 Whereupon,

1 MICHEL S. PAWLOWSKI

2 FREDERICK J. BATH

3 VERNON E. ADLER,

4 the witnesses on the stand at the time of recess, resumed
5 the stand and, having first been previously duly sworn by
6 the Chairman, were examined and testified further as follows:

7 CROSS EXAMINATION--Resumed

8 BY MS. STRAUBE:

9 Q I believe page 12 discusses -- well, on the cross
10 examination by Mr. Cunningham I believe you stated that the
11 York County plan was deficient with respect to providing
12 information to transients. Is that correct?

13 A (WITNESS ADLER) Yes.

14 Q Is that one of the things that is going to be part
15 of your comments to the RAC in the context of coming up with
16 FEMA findings and determinations?

17 A (WITNESS ADLER) As I understand it, the State is
18 talking with Parsons, Brinckerhoff, in order to resolve
19 minor differences that remain between the two.

20 Q Wait, wait. I do not mean to interrupt. But I do
21 not think that is the question.

22 (Panel of witnesses conferring.)

23 A (WITNESS BATH) Yes, that will be considered.

24 Q Thank you.

25 MS. STRAUBE: For the purposes of the Board we are

1 skipping over to page 4 now of the cross-examination plan.

2 BY MS. STRAUPE: (Resuming)

3 Q Okay. On page 22 of the March testimony and again
4 on page 26 you describe rumor -- you talk about rumor
5 control lines. Could you briefly describe how these rumor
6 control lines operate?

7 (Panel of witnesses conferring.)

8 A (WITNESS ADLER) Do you mean generally or with
9 respect to a particular county? York or --

10 Q You can start with respect to York County.

11 A (WITNESS ADLER) It could be a separate facility.
12 I am not sure whether they plan on having a separate
13 facility or not.

14 (Panel of witnesses conferring.)

15 A (WITNESS BATH) In the York County plan they have
16 set aside six telephone lines to provide for rumor control.
17 And I am fairly certain that it is within the confines or
18 adjacent to the York County ECC at the York County
19 Courthouse.

20 Q Okay. And what function are they to serve in the
21 case of an emergency?

22 A (WITNESS BATH) In an emergency people always,
23 even with a bona fide source of information such as EES,
24 will want to confirm and in some cases will pick up rumors
25 and they will want to confirm their actions. And this is a

1 service that is provided by -- provided by local government
2 and by county government and by state government.

3 Q Are the 911 operators to serve the same function?

4 A (WITNESS BATH) No.

5 Q Okay. What function do the 911 operators serve?

6 A (WITNESS BATH) It is my understanding that 911
7 operators receive emergency telephone calls for emergency
8 services. They provide that information to emergency
9 dispatchers who dispatch those emergency services.

10 Q Are the rumor control lines ever going to be used
11 as overflow lines for the 911 calls?

12 A (WITNESS BATH) No, they are not planned to do so.

13 Q Okay. Is your testimony at the bottom of page 26
14 then incorrect?

15 A (WITNESS BATH) The testimony that I have prepared
16 on the 911 system was based on questions provided by the
17 Intervenor as to the -- which I felt went to the latent
18 capability of the 911 system and not to the prescribed or
19 the planned use of the .11 system.

20 Q Well, okay. The problem I am having is your
21 answer on the bottom of 26 is the counties have been
22 directed to set up rumor control centers which will relieve
23 some of the burden from 911 operators.

24 A (WITNESS ADLER) Why is that a problem?

25 Q Well, it may not be a problem. What I am trying

1 to get at is the rumor control lines going to be used --
2 anticipated to be used as overflow lines from 911, or are
3 they going to be exclusively rumor control lines?

4 A (WITNESS ADLER) They are intended to be
5 exclusive. But public persons may call 911 wrongly with
6 rumor-related information. It is part of the public
7 education program to inform the citizenry. As I pointed out
8 in earlier testimony, with two telephone numbers in the
9 leaflets, but assuming that not everybody responds
10 efficiently in this area, there would be a concept of
11 overflow applicable, transfer by a wrong call to 911 to a
12 rumor control phone number.

13 Q Thank you. I think that clarified it.

14 On page 25, at the top of the page, you talk about
15 county dispatchers who have maintained that control on all
16 the radio frequencies. Are these dispatchers considered
17 emergency workers?

18 A (WITNESS BATH) I have consistently considered an
19 emergency operations center staff as an emergency worker, or
20 at least a potential to be an emergency worker. The time
21 that he would become an emergency worker is when it has been
22 determined that the environment is such that he may exceed
23 the PAGs for the public and that his job is critical for him
24 to remain where he is and, therefore, there should be
25 consideration for the monitoring -- his monitoring through

1 to get at is the rumor control lines going to be used --
2 anticipated to be used as overflow lines from 911, or are
3 they going to be exclusively rumor control lines?

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5 exclusive. But public persons may call 911 wrongly with
6 rumor-related information. It is part of the public
7 education program to inform the citizenry. As I pointed out
8 in earlier testimony, with two telephone numbers in the
9 leaflets, but assuming that not everybody responds
10 efficiently in this area, there would be a concept of
11 overflow applicable, transfer by a wrong call to 911 to a
12 rumor control phone number.

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15 county dispatchers who have maintained that control on all
16 the radio frequencies. Are these dispatchers considered
17 emergency workers?

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19 emergency operations center staff as an emergency worker, or
20 at least a potential to be an emergency worker. The time
21 that he would become an emergency worker is when it has been
22 determined that the environment is such that he may exceed
23 the PAGs for the public and that his job is critical for him
24 to remain where he is and, therefore, there should be
25 consideration for the monitoring -- his monitoring through

1 dosimetry. If in fact, KI is available, it should be
2 available for his use.

3 And I am trying to think of the other element for
4 an emergency worker. I cannot right off.

5 (Counsel for the Commonwealth conferring.)

6 Q I assume you are stating FEMA policy with respect
7 to emergency workers?

8 A (WITNESS ADLER) It is a judgment call. We will
9 be talking with the people who prepared the county plan in
10 review of these most current plans by the RAC. And I have
11 made a note on this point. The ground rules are those --
12 the ground rules that Mr. Bath just identified are FEMA
13 thoughts on the matter.

14 But it would be difficult to draw a conclusion
15 without discussing the specifics of this point with the
16 county people and addressing it in the context, for example,
17 of the location during an emergency of each of these county
18 dispatchers.

19 Q Okay. Turning to pages 34 and 35, 34 going on to
20 35, in a discussion of transportation plans -- and the
21 discussion is for York County, but my question is really for
22 all five counties -- do these plans, transportation plans,
23 have to be provided before the county plans can be found
24 adequate?

25 (Panel of witnesses conferring.)

1 A (WITNESS ADLER) You are reading from the bottom
2 of page 34?

3 Q Yes.

4 A (WITNESS ADLER) We will have to address it. It
5 is important.

6 A (WITNESS BATH) Can I say this: It may be found
7 adequate, but not without comment. It is the degree to
8 which the implementation of that particular county is
9 dependent upon the transportation's function. And in this
10 case, I see that transportation is very viable and an
11 important portion of response planning. And if -- and if it
12 can be seen that through the procedures set up that they
13 have a good handle and they can do it, then possibly the
14 more complete procedures are not as critical. It is a
15 judgment call.

16 Q Okay. Turning to page 36, at the very top, about
17 agreements with private bus companies. Is that also an item
18 that is necessary -- well, is that an item that is necessary
19 before the county plans can be found adequate?

20 A (WITNESS ADLER) It is an issue to be addressed as
21 we review the revised county plans.

22 Q Okay. Turning to page 37 and the answer at the
23 top of the page regarding radiation-proof equipment. Is
24 there such a thing as radiation-proof clothing?

25 A (WITNESS ADLER) No.

1 Q Okay. Am I correct in stating that there are two
2 kinds of radiations that need to be protected against: beta
3 radiation and gamma radiation?

4 A (WITNESS ADLER) We are certainly familiar with
5 three kinds to which we are vulnerable or may be vulnerable
6 in a fixed nuclear accident: alpha, beta, and gamma.

7 Q Okay. Does the clothing described in your answer
8 on page 37 protect against beta radiation?

9 A (WITNESS ADLER) No.

10 A (WITNESS PAWLOWSKI) Excuse me. Clothing does
11 provide protection from beta radiation. You have to put it
12 in the context of the fact if all surfaces of the body are
13 covered, beta radiation, as long as the radioactive material
14 -- it depends upon the beta radiation, how penetrating it
15 is.

16 But, in general, clothing will provide protection
17 from beta radiation as long as the contaminated material
18 does not come in contact with the skin. Basically, clothing
19 provides protection from contamination getting on the skin.

20 Q And does the clothing described in your answer on
21 page 37 provide that kind of protection for beta radiation?

22 (Pause.)

23 A (WITNESS ADLER) I think the correct way to answer
24 this, Mr. Chairman --

25 A (WITNESS PAWLOWSKI) I think the context in which

1 the answer was developed was on the basis of providing
2 protection from gamma radiation, which clothing does not
3 provide protection.

4 Q Okay, that was going to be my next question. But
5 if you could please answer. Does the exact type of clothing
6 described on page 37 protect against beta radiation?

7 A (WITNESS PAWLOWSKI) It does on the surfaces of
8 the body which are covered.

9 Q Okay.

10 A (WITNESS ADLER) That would be true for all alpha
11 as well.

12 Q Okay. Thank you.

13 (Pause.)

14 Okay, on page 62 you discuss the Mennonite
15 Disaster Service procedures for Old Order Amish. It is, I
16 believe, at the bottom of the page. Are those procedures
17 required -- well, do those procedures have to be set out in
18 the plans for a finding of adequacy by FEMA?

19 A (WITNESS BATH) It was my understanding that there
20 is an annex already to the staff duty officers manual which
21 provides 24-hour -- in other words, an off-duty and an
22 on-duty telephone number to the Mennonite Disaster Service.
23 It is not a case that would be required. I was under the
24 impression that it is already there.

25 MS. STRAUBE: Okay, I have no further questions.

1 CHAIRMAN SMITH: Mr. Zahler?

2 MR. ZAHLER: Mr. Smith, what is the Board's
3 preference? I understood that there were some questions
4 left over that ANGRY might want to ask. Would you prefer me
5 to go or --

6 CHAIRMAN SMITH: No, I think we should allow Ms.
7 Bradford to compete her cross examination.

8 MS. GAIL BRADFORD: Sir, I have decided not to ask
9 the questions I was working on before. I do have one
10 question which follows up what Ms. Straube was asking
11 yesterday evening.

12 BY MS. GAIL BRADFORD:

13 Q Mr. Bath, do you have a copy of the PEMA map
14 there?

15 MR. GRAY: Would you identify for the record the
16 PEMA map you are referring to?

17 MS. STRAUBE: I believe it is Commonwealth's
18 Exhibit 2B.

19 MS. GAIL BRADFORD: Thank you.

20 BY MS. GAIL BRADFORD: (Presuming)

21 Q Do you know where Steelton-Highspire is on that
22 map?

23 A (WITNESS BATH) Yes.

24 Q Do you see the arrow that starts from the Steelton
25 area and heads towards Three Mile Island?

1 A (WITNESS BATH) Yes.

2 Q Do you remember the testimony during the
3 evacuation time estimate cross examination which indicated
4 that Parsons, Brinckerhoff, in their study, has changed that
5 direction of egress? I can give you the link number and the
6 page in Exhibit 52, Licensee's Exhibit 52, if you need it.

7 A (WITNESS BATH) I have a recollection of that. I
8 am not sure I have perfect recall as to all the things that
9 were discussed in that. But I do have recollection of this
10 discussion.

11 Q Do you have Licensee's Exhibit 52, the time
12 estimate study by Parsons, Brinckerhoff? I ask you to turn
13 to page 47 and 49.

14 A (WITNESS BATH) Yes.

15 Q You will notice on the map facing page 47, which
16 is Figure 20, in that area you can find link numbers 128,
17 127, and 126.

18 A (WITNESS BATH) Yes.

19 Q And notice that link 126 is approximately at the
20 five-mile ring, and link 128 looks like about eight miles
21 out from Three Mile Island.

22 MR. ZAHLER: Mr. Bath, you are going to have to
23 look at the map preceding page 47.

24 WITNESS BATH: Thank you.

25 Yes.

1 BY MS. GAIL BRADFORD: (Resuming)

2 Q Is that accurate?

3 A (WITNESS BATH) Yes. I see the comparison. Yes.

4 Q And that link number 127 is South Front Street
5 between Eisen Boulevard and Swatara Street, according to the
6 chart on page 49?

7 A (WITNESS BATH) Yes.

8 Q Does this not indicate to you that the evacuation
9 time estimate study reversed the direction along that route
10 from what the PEMA map Exhibit 2B indicates? .

11 A (WITNESS BATH) Yes.

12 Q Turning to the Dauphin County public information
13 pamphlet, which does not have an exhibit number --

14 A (WITNESS ADLER) We have York and Lancaster. But
15 give us a moment to find Dauphin.

16 MS. STRAUBE: I will. I will provide you one
17 copy.

18 (Counsel handing document to witness.)

19 WITNESS BATH: Yes, I have it.

20 BY MS. GAIL BRADFORD: (Resuming)

21 Q Looking at the map that is on the Dauphin County
22 pamphlet, do you see the area in question? It is just
23 labeled "Steelton" and the Turnpike, then Highspire.

24 A (WITNESS BATH) Yes.

25 Q In looking at the chart on the next page, called

1 "Evacuation Routes," we see Highspire and Steelton listed.

2 A (WITNESS BATH) Yes.

3 Q And the routes are 76 West to Exit 11 for both.

4 A (WITNESS BATH) Yes.

5 Q Is not 76 West the Turnpike, and does not this
6 pamphlet, the Dauphin County pamphlet, show the route which
7 is indicated on Commonwealth Exhibit 2B?

8 A (WITNESS BATH) Yes, it appears to.

9 Q In your opinion, does this pamphlet therefore need
10 to be reprinted?

11 A (WITNESS BATH) The whole thrust of your questions
12 is based on -- that Parsons, Brinckerhoff identified that
13 they are going to move the people in a different direction.
14 At this time I do not know that the State of Pennsylvania is
15 going to move the people in the same direction as the
16 Parsons, Brinckerhoff if that --

17 Q I believe there was testimony from Mr. Lothrop
18 that they would change this.

19 MR. ZAHLER: I am not sure the testimony was so
20 unequivocal. I remember it, but I do not remember which way
21 the testimony went.

22 MS. STRAUBE: I think as to those -- that one
23 particular link or those three links, I think he did say
24 that we were going to change the direction. But the work
25 has not been done yet. I mean --

1 CHAIRMAN SMITH: So what is the pending question?
2 Does the pamphlet have to be reprinted? Is that the
3 question?

4 MS. GAIL BRADFORD: Yes.

5 BY MS. GAIL BRADFORD: (Resuming)

6 Q Is the pamphlet deficient or does it need to be
7 reprinted?

8 A (WITNESS ADLER) If the state decides to alter
9 that evacuation route, which you just pointed out on that
10 Dauphin County brochure, the answer is "Yes."

11 MS. GAIL BRADFORD: Thank you.

12 CHAIRMAN SMITH: Is that it?

13 MR. GRAY: Yes.

14 CHAIRMAN SMITH: Mr. Zahler.

15 BY MR. ZAHLER: (Resuming)

16 Q Mr. Bath, would you describe how you went about
17 reviewing the state and five county plans?

18 (Pause.)

19 A (WITNESS BATH) When I came on board in June, the
20 state and county plans, a version of them, had already been
21 reviewed. They had been reviewed by FEMA reps,
22 representatives, and the members of the regional assistance
23 committee. Comments were already provided to the state for
24 suggested modifications.

25 Subsequent to that I have received modifications

1 of the state plans and upgrading toward meeting those RAC
2 comments. I have made subsequent comments of those
3 modifications to this point and to the point of having the
4 state prepare an expanded Appendix E and having the counties
5 in fact redraft their basic plans.

6 Q And would you briefly describe the review process
7 from here on out with respect to the expanded state plan and
8 the revised county plans?

9 A (WITNESS BATH) At present we are reviewing Annex
10 E, and we are reviewing those county plans which we have
11 already received, the new county plans. We will provide
12 comments on those to the states.

13 I do not like to forecast, but at some time and
14 point the state will be forwarding for official review the
15 state and county plans, in which case we will go into a
16 formal review process as specified in 44 CFR Part 350.

17 Q Am I correct that as part of that proposed
18 regulation, in order to obtain formal FEMA review and
19 approval, it is required that the governor or his designee
20 transmit the plans to FEMA?

21 A (WITNESS BATH) Or his designee.

22 Q Excuse me?

23 A (WITNESS BATH) Or his designee.

24 Q Has the state done that yet?

25 A (WITNESS BATH) I think --

1 A (WITNESS ADLER) Are you addressing -- can we
2 answer as a panel, Mr. Chairman?

3 Q Yes, I am sorry. I just started off with Mr. Bath
4 because it was my understanding that he had done the
5 reviews.

6 A (WITNESS ADLER) Would you restate your question?

7 Q Has the state either through its governor or his
8 designee formally transmitted the state and county plans for
9 FEMA for their review?

10 (Panel of witnesses conferring.)

11 A (WITNESS ADLER) We would like to confer for a
12 moment.

13 (Panel of witnesses conferring.)

14 A (WITNESS ADLER) We have not received a formal
15 submittal under 0654 from the state.

16 Q Has anyone on the panel talked with personnel from
17 the state as to why the state has not yet transmitted those
18 documents in the formal manner?

19 A (WITNESS ADLER) Of course.

20 Q What did they tell you?

21 A (WITNESS ADLER) At such time -- well, what did
22 they tell us? This is a dialogue, not a monologue. The
23 dialogue between PEMA and FEMA goes like this:

24 For the last year or so, working together to make
25 the plans as high a quality as possible, the RAC personnel

1 involved and the FEMA Region III personnel involved,
2 specifically Mr. Bath, who has made the largest
3 contribution, have been striving to get the highest quality
4 plan.

5 Neither the state nor FEMA encourage premature
6 submittal of a quality document in a formal fashion from the
7 governor or his designee.

8 Q If I understand you correctly, then, the reason
9 why the state has not formally transmitted the documents is
10 because they are still reviewing and revising them; is that
11 correct?

12 A (WITNESS ADLER) That is correct. The entire
13 process of our review has been informal to date.

14 Q Turning to page 19 of your testimony -- I am
15 starting with the February testimony --

16 A (WITNESS BATH) Did you say the February?

17 Q Yes.

18 A (WITNESS ADLER) Page 19?

19 Q Yes. In the middle of the page you indicate that
20 state and counties should develop implementation and
21 activation procedures for the prompt alert siren system.
22 Would you describe the procedures that you have in mind?

23 (Pause.)

24 A (WITNESS ADLER) The procedures, as I see them,
25 would include among other things notification to activate

1 with the preliminary steps that lead to that activation set
2 out on paper.

3 (Panel of witnesses conferring.)

4 Q Anything else?

5 (Panel of witnesses conferring.)

6 A (WITNESS BATH) I was trying to digest what Mr.
7 Adler just said. We can perceive, since the siren system
8 that is being installed may require a different alerting
9 mechanism or a different button and so forth, and so what we
10 are looking for is whatever modifications to the present
11 procedure for using their siren systems would in fact be
12 incorporated and coordinated within the county planning as
13 well as the state planning.

14 Q Mr. Bath, do you know what the present procedures
15 are for using the present siren systems at the county
16 level?

17 A (WITNESS BATH) For attack warning and attention
18 alert warning, the dispatcher is to contact the county
19 coordinator; and the county coordinator, based on his
20 decision process, which may include discussing the situation
21 with the county commissioner, can direct the dispatcher to
22 sound the attention alert signal.

23 Under attack warning there is specific procedures
24 set up whereas the dispatcher is to sound the attack warning
25 signal for a nuclear attack on the basis of receiving an

1 authenticated direction to do so.

2 Q I understood the last half of your answer with
3 respect to attack warning, that the dispatcher could do it
4 himself if he received the proper notice -- message, that
5 is. What was the first part of that?

6 A (WITNESS BATH) The first part, on an attention
7 alert signal, the dispatcher would -- would contact the
8 emergency management coordinator who, through his decision
9 process, which may include in some counties discussing with
10 the county commissioner before sounding the attention alert
11 signal.

12 Q Would that procedure for the attention alert
13 signal be an acceptable procedure for sounding the alert
14 sirens to be installed by Licensee?

15 A (WITNESS BATH) The only drawback is if it could
16 be shown that such discussions would delay the sounding of
17 the sirens beyond the prescribed time frame. At present we
18 do not see that as a deficiency.

19 Q And am I correct also as to the first item that
20 was identified by Mr. Adler -- that is, the notification
21 scheme to activate the sirens -- that the present state and
22 county plans describe a notification scheme cascading down
23 from PEMA first to the parent county and then to the other
24 four counties?

25 A (WITNESS BATH) Do the present plans provide

1 that? Yes, they do.

2 Q And that is acceptable to FEMA; is that correct?

3 A (WITNESS BATH) There is testimony that we have
4 provided that we are expecting modification to that
5 notification system to improve the cascading and also to
6 modify some areas where boroughs closer to the plant would
7 be notified first and so forth, and certain modifications in
8 that case.

9 Q That, however, is after the county coordinator has
10 been notified?

11 A (WITNESS BATH) That is correct.

12 Q And that cascading scheme where you would seek a
13 revision is not necessary for the purpose -- for the
14 procedures to be used in activating the siren system; is
15 that correct?

16 A (WITNESS BATH) That is correct.

17 Q Would I therefore be wrong to conclude that even
18 though it may not be written down nicely on a piece of paper
19 specifically labeled "Procedures for Setting Off the Prompt
20 Notification System," that you have in your possession the
21 essential information with respect to the procedures that
22 will be used.

23 A (WITNESS BATH) The only drawback in making a
24 commitment at this point is that there is a hardware
25 change. We are unaware of the hardware change. We would

1 want to know that the hardware that is being provided
2 conforms to the set procedures. We do not know that yet.

3 Q If the -- if after the hardware was identified and
4 you were informed that it did not require a change in
5 procedures, would I then be correct that you have
6 information that essentially provides that necessary with
7 respect to the activation and implementation procedures for
8 that system?

9 A (WITNESS BATH) Yes.

10 Q On page 23 of your testimony you state that it is
11 not necessary to have a backup power source for the siren
12 system. Do you know whether the 83 sirens Licensee is
13 installing can be powered by batteries?

14 A (WITNESS BATH) No, I do not know which sirens the
15 Licensee is purchasing.

16 Q If I told you that they were purchasing ACA sirens
17 with 125 decibel output, would you be able to indicate
18 whether they have backup battery power supplies available
19 for that siren system?

20 MS. GAIL BRADFORD: Sir, I object to this
21 question. The panel has already testified that they have
22 not seen or reviewed the Licensee's siren study. He is just
23 taking one isolated piece of information. I just think it
24 is unfair to ask that kind of question when they have not
25 seen the study.

1 MR. ZAHLER: Mr. Chairman, I have not asked them
2 to approve it. I have just asked a very specific question
3 which they either know or they do not know, which is whether
4 batteries are available for the particular sirens Licensee
5 is proposing to install. I think they can answer that
6 question.

7 CHAIRMAN SMITH: I see no reason why they should
8 not.

9 WITNESS ADLER: I do not know for certain whether
10 they can be.

11 BY MR. ZAHLER: (Resuming)

12 Q Does anyone on the panel?

13 A (WITNESS ADLER) The record should indicate that
14 the other panel members shook their head "No."

15 Q In response to question 32 on page 27 of your
16 testimony you refer to the Dauphin County emergency
17 operations center. Isn't that EOC like the York County EOC
18 outside the EPZ?

19 A (WITNESS BATH) In my understanding of its
20 location on the plan, it is within the periphery. The EOC
21 -- it is somewhere -- I have not sat down and calibrated,
22 but it is somewhere between 9-1/2 to 10 miles. Therefore,
23 it would be within the EPZ as drawn by the state, as I
24 understand it.

25 Q Did you misspeak in the very beginning of your

1 answer when you said it was "on the periphery of the ECC"?

2 Did you mean "the periphery of the EPZ"?

3 A (WITNESS BATH) Yes. Yes, sir.

4 Q In FEMA's experience with past evacuations, have
5 cars running out of fuel precluded successful evacuations?

6 A (WITNESS BATH) No.

7 Q Similarly, based on FEMA's experience, have
8 traffic accidents precluded successful evacuations?

9 A (WITNESS ADLER) No.

10 (Pause.)

11 Q With respect to your answer to question 40 on page
12 33, am I correct that NRC guidance with respect to the
13 administration of potassium iodide to institutionalized
14 persons has recently changed?

15 (Panel of witnesses conferring.)

16 A (WITNESS PAWLOWSKI) One second, please.

17 (Witness reviewing document.)

18 MS. GAIL BRADFORD: Excuse me. Was the question
19 whether NRC guidance or whether FEMA guidance had changed?
20 Federal FEMA guidance has changed.

21 MR. ZAHLER: The question initially was NRC. I am
22 next going to ask what FEMA is doing in response to that.

23 WITNESS ADLER: The answer is "Yes," insofar as
24 the exhibit that I believe has been entered into the record
25 within recent days changes their established position.

1 BY MR. ZAHLER: (Resuming)

2 Q Just so the record is clear, is the document you
3 are referring to the March 26, 1981 --

4 A (WITNESS ADLER) Yes.

5 Q -- memorandum designated SECY-80-257/257A?

6 A (WITNESS ADLER) That is the document to which I
7 refer.

8 Q And that document indicates that --

9 CHAIRMAN SMITH: Wait a minute -- well, that is
10 the -- the document to which you refer, I think, is a
11 memorandum from Chilk to Dircks. Is that the memorandum?

12 WITNESS ADLER: That is the memorandum I have in
13 front of me.

14 CHAIRMAN SMITH: The subject is SECY-80-257/257A?

15 MR. ZAHLER: That is correct, Mr. Chairman.

16 WITNESS PAWLOWSKI: I would like to get the
17 context of the question. I would like to have the record
18 backed up and repeat specifically the question you were
19 asking.

20 BY MR. ZAHLER: (Resuming)

21 Q The question so far to which I believe I have
22 gotten an affirmative response -- but you can correct it if
23 it is not true -- is: Has NRC's guidance with respect to
24 the administration of potassium iodide to institutionalized
25 persons recently changed?

1 (Witness reviewing document.)

2 A (WITNESS PAWLOWSKI) I do not think it has
3 changed. It says the staff should assure with FEMA that
4 there is appropriate guidance for the administration of KI
5 before requiring implementation for certain
6 institutionalized members of the public.

7 Q Was that always the guidance, as far as your
8 understanding went?

9 A (WITNESS PAWLOWSKI) In 0654, 0654 in its guidance
10 and criteria for development of emergency plans, states that
11 thyroid blocking should be considered, and it includes
12 institutionalized members of the public.

13 Q Do you know what FEMA is doing in response to that
14 particular item of the memorandum?

15 A (WITNESS PAWLOWSKI) FEMA is developing an
16 answer. Presently, the Federal Emergency Management Agency
17 continues to maintain the position that it is useful for
18 utilities, states, and local jurisdictions to consider the
19 use of potassium iodide as a thyroid-blocking agent in the
20 event of a release or radioiodines due to a radiological
21 accident at a fixed nuclear facility.

22 FEMA continues to consider all questions raised
23 about this or any other radio-protective drugs and refers
24 them -- and refers questions concerning radio-protective
25 drugs to the Food and Drug Administration for appropriate

1 advice and action.

2 Considerable activity has taken place in this
3 area, and we have reached agreement concerning the use of KI
4 for on-site and off-site emergency workers and for persons
5 in institutions where the general population may have
6 reached restricted mobility but are yet subject to general
7 health care provisions.

8 FDA has responded to our request -- that is,
9 FEMA's request -- for federal guidance by procuring a draft
10 recommendation for use of the drug for which publication is
11 planned in April or May of 1981. In this draft
12 recommendation the Food and Drug Administration has
13 performed a benefit/risk analysis which supports the use of
14 the drug by the general public with some caveats concerning
15 the probability of injury to a small sample of people who
16 might have an adverse reaction to the use of KI under
17 unsupervised conditions.

18 Q Is that what you are reading from, an FEMA policy
19 statement with respect to potassium iodide?

20 A (WITNESS PAWLOWSKI) That is a current position of
21 FEMA in regard to potassium iodide.

22 Q Was that position prepared prior to or after May
23 26, 1981?

24 A (WITNESS PAWLOWSKI) That was developed after
25 March 26, 1981.

1 Q Has that position been forward to the NRC?

2 A (WITNESS PAWLOWSKI) That position is still being
3 -- is still being discussed within FEMA. I should say that
4 the policy paper, the position which is currently reflected
5 in my testimony, our formal response to NRC is still being
6 developed.

7 Q So that the position that you just testified is an
8 interim position that has not yet received formal FEMA
9 approval?

10 A (WITNESS PAWLOWSKI) That is correct.

11 Q And you do not know whether today, for example,
12 that is still FEMA policy?

13 A (WITNESS PAWLOWSKI) Until a formal position is
14 submitted in writing to the NRC, that is the policy.

15 CHAIRMAN SMITH: You say until a formal finding is
16 transmitted, a formal determination is transmitted to the
17 NRC, that is the policy?

18 WITNESS PAWLOWSKI: That is the guidance -- that
19 is the position of FEMA.

20 MR. COSGROVE: Mr. Chairman, maybe I can clear
21 this up.

22 Mr. Pawlowski, that is the opinion or position of
23 your division within FEMA; correct?

24 WITNESS PAWLOWSKI: Correct.

25 MR. COSGROVE: And at the present time FEMA has

1 just gotten a new acting director who has not reviewed that
2 policy?

3 WITNESS PAWLOWSKI: That is correct.

4 MR. COSGROVE: We have a director-designate that
5 has not yet been confirmed yet and will be reviewing
6 policies in the next few months?

7 WITNESS PAWLOWSKI: That is correct.

8 CHAIRMAN SMITH: Thank you.

9 MR. ZAhLER: It always helps when the questioner
10 knows the facts.

11 CHAIRMAN SMITH: We are very pleased to have your
12 presence here. I do not know if you are more valuable as
13 counsel or as a witness.

14 (Laughter.)

15 CHAIRMAN SMITH: But feel free to help.

16 BY MR. ZAhLER: (Resuming)

17 Q Mr. Pawlowski, do you have a copy of the FEMA
18 report to the President dated June 1980 in front of you?

19 A (WITNESS PAWLOWSKI) No, I do not.

20 (Counsel handing document to witness.)

21 A (WITNESS PAWLOWSKI) Yes, I do.

22 Q On page Roman numeral III-30 of that document,
23 there is a statement that potassium iodide is available over
24 the counter. Do you see that?

25 A (WITNESS PAWLOWSKI) Correct. Yes.

1 Q Am I correct that the reference was intended to
2 mean that during a radiological emergency at the direction
3 of state or local public health officials potassium iodide
4 can be distributed over the counter?

5 A (WITNESS PAWLOWSKI) Yes.

6 Q It does not mean, does it, that if my local
7 druggist had a supply of potassium iodide I could go down to
8 the pharmacy and buy some tomorrow; does it?

9 A (WITNESS PAWLOWSKI) You are correct.

10 Q And is this situation -- that is, that I could not
11 buy it from my druggist over the counter without both a
12 radiological emergency and the direction of the state and
13 local public health officials due to the manner in which the
14 Food and Drug Administration has approved the use of
15 potassium iodide?

16 A (WITNESS PAWLOWSKI) I believe, yes.

17 Q Have you spoken with anyone at FDA to confirm your
18 understanding with respect to this matter?

19 A (WITNESS PAWLOWSKI) I have talked to Dr. Schlein
20 to confirm the current interpretation which we have
21 discussed here concerning the use of potassium iodide in
22 emergencies and its availability over the counter.

23 Q And that conversation is the basis for your
24 testimony that you have just given, plus any prior
25 knowledge?

1 A (WITNESS PAWLOWSKI) Plus I have copies of the
2 Federal Register notice which sets out the parameters for
3 distribution of potassium iodide, and it states in writing
4 that it is -- would be available -- let me quote
5 specifically from the Federal Register notice.

6 (Pause.)

7 Federal Register Volume 43, Number 242, Friday,
8 December 15, 1978: "The Commissioner advises of the
9 conclusion that a potassium iodide drug product manufactured
10 for use as a thyroid-blocking agent in a radiation emergency
11 is suitable for over-the-counter sale. This does not affect
12 the present status as a prescription drug of potassium
13 iodide drug product manufactured for other uses in higher
14 doses."

15 Q In response to question 72 on page 53 of your
16 testimony you discuss generally the requirements or the
17 guidance with respect to conducting an exercise. What is an
18 appropriate range of emergency response actions that must be
19 tested during an exercise?

20 A (WITNESS ADLER) Since we have not developed it
21 yet, it is hard for me to say. We will be discussing it
22 with the state in my offices during the coming week, next
23 week.

24 Q I was not asking specifically with respect to this
25 exercise, but more generally. I am correct, am I not, that

1 FEMA has reviewed exercises conducted in a number of other
2 states; isn't that true?

3 A (WITNESS ADLER) That is true. And there are some
4 -- some major guidelines that I can identify to you if you
5 give me just a moment.

6 Q Surely.

7 (Pause.)

8 A (WITNESS ADLER) Areas of activity in an exercise
9 that are undoubtedly to be tested and have been in the
10 previous exercises conducted include notification,
11 communications system, the degree of support by responsible
12 elected or appointed public officials.

13 I am not attempting to name what is a listing of
14 19 of these parameters which are mentioned in earlier
15 testimony, too, but rather just pick some representative
16 areas they are from. Public information -- that is, the
17 interface with news media. And accident assessment having
18 to do with monitoring. Also, protective actions including
19 evacuation, shelter, reception, and care; recovery and
20 reentry as well.

21 Those are selected representative areas.

22 Q Are you reading from a particular guidance
23 document that FEMA uses?

24 A (WITNESS ADLER) Yes.

25 MR. ZAHLER: I guess my next inquiry is more

1 directed toward Mr. Gray or toward Mr. Cosgrove, is whether
2 they would have any problem with me reviewing that document?

3 MR. GRAY: No. No problem.

4 BY MR. ZAHLER: (Resuming)

5 Q Am I correct that in terms of developing a
6 scenario, that FEMA works together with the state and the
7 local government and the Licensee to develop an acceptable
8 scenario?

9 A (WITNESS ADLER) Definitely, we do.

10 Q And at that point, mutual agreement is reached
11 among the parties as to the necessary elements of emergency
12 response organizations that need be tested during the
13 exercise?

14 A (WITNESS ADLER) Yes.

15 Q And assuming that all of those elements that are
16 identified during scenario preparation are in fact tested,
17 one would not find the exercise defective because of the
18 failure to test other elements not included in the
19 agreed-upon scenario?

20 A (WITNESS ADLER) I really would like you to say
21 that again. The last couple of phrases were not clear to
22 me.

23 Q The question is: Assuming the parties have
24 reached agreement as to the necessary elements of a
25 scenario, assuming that all those elements described in the

1 scenario are in fact tested, am I correct that the exercise
2 would not be found deficient for the failure to exercise a
3 particular element not included in the scenario?

4 A (WITNESS ADLER) I can see one qualification to a
5 "Yes" answer to that question. If, in fact, by having
6 conducted the exercise information becomes known to the
7 parties which, in retrospect, makes them admit to themselves
8 -- that is, PEMA and FEMA -- that an omission has occurred,
9 that that is -- that that is a qualification to the "Yes"
10 answer.

11 Q Assuming that that rare circumstance occurs, would
12 it be required to rerun the entire exercise, or would you
13 just have to exercise the element that on hindsight should
14 have been included?

15 A (WITNESS ADLER) The latter. And these are
16 referred to as "drills," which are held periodically. I
17 would not want to give you the impression that in that rare
18 circumstance we would have to immediately go back and do
19 that which we felt was an omission to fill in the blank.
20 This is a function of drills on a periodic basis, drills
21 being segments of exercises.

22 Q If I am correct in understanding you, you are
23 indicating that that omission could be corrected by a drill
24 held at a later date, not even immediately after the
25 exercise?

1 A (WITNESS ADLER) Yes.

2 MS. GAIL BRADFORD: Excuse me. Could we also find
3 out what the document you are reading is, and is it all
4 right if we see a copy?

5 MR. GRAY: Yes. If you like, we can make copies
6 of that at the recess.

7 (Pause.)

8 MR. COSGROVE: Mr. Adler, would you please
9 identify that document?

10 WITNESS ADLER: The document is dated January 19,
11 1981, and is transmitted by a cover memorandum of January 7,
12 1981, for all regional directors, with attention to the BAC
13 chairman, from John E. Dickey, director, Radiological
14 Emergency Preparedness Division. And the subject is
15 "Exercise Critique Material."

16 BY MR. ZAHLER: (Resuming)

17 Q On pages 55 and 56 of your testimony you discuss
18 the filing of Dauphin County school evacuation plans in the
19 county emergency preparedness office. Now, I understand
20 from your previous testimony that you have not yet reviewed
21 those plans. The question I have for you is what is it you
22 expect to see in those plans?

23 (Panel of witnesses conferring.)

24 A (WITNESS BATH) I am sorry. I was trying to find
25 the specific answer you were talking about. Would you --

1 Q Let me repeat the question so it is clear. At
2 pages 55 and 56 you discuss the filing of the Dauphin County
3 school evacuation plans in the County Emergency Preparedness
4 Office. I understand from your previous testimony that you
5 have not yet reviewed those plans; is that correct?

6 A (WITNESS ADLER) Yes. Yes, we have not yet
7 reviewed school evacuation plans.

8 Q The question I have then is what do you expect to
9 see in those school evacuation plans?

10 A (WITNESS ADLER) One item is stated in our
11 testimony, that a listing of procedures be maintained so --
12 and to go with school evacuation plans which we may review
13 would be a listing of procedures to be followed in an
14 accident.

15 Q Would those procedures be school-level procedures
16 or general procedures at the county level with respect to
17 the manner in which schools will be evacuated?

18 A (WITNESS BATH) I would expect both.

19 Q Based on your review of the Dauphin County plan,
20 do you understand the concept of operations for the
21 evacuation of school children?

22 A (WITNESS BATH) Yes.

23 Q And what is that?

24 A (WITNESS BATH) That the county will recommend
25 through the EBS and through notification that evacuation

1 shall take place, that the school officials shall be
2 responsible for evacuating children to a predetermined
3 relocation point; that there are other provisions in it for
4 -- during different times frames of an exercise development,
5 they may return the children home.

6 Generally, it is fairly well specified what the
7 concept of operations will be.

8 Q Now, what additional information do you expect to
9 see in the school evacuation plan?

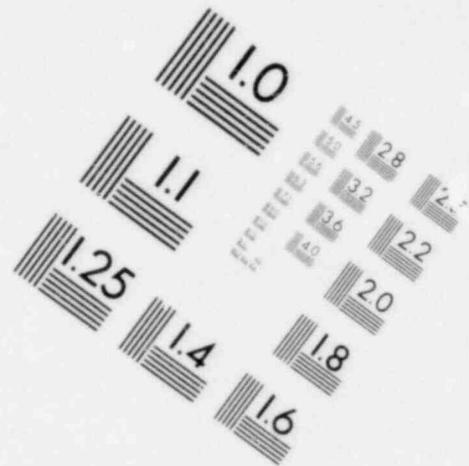
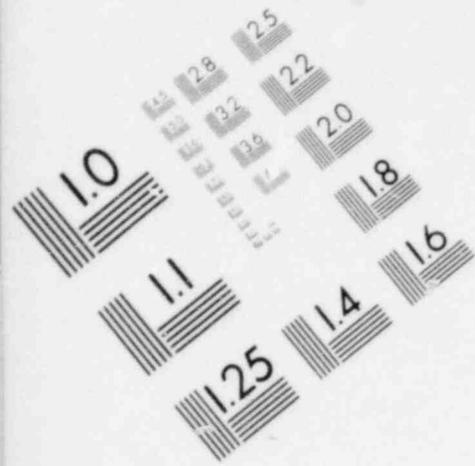
10 A (WITNESS BATH) Notification procedures as to how
11 they will reach the bus drivers, recognition within a school
12 procedure that in fact the counties concept of operation is
13 being carried out by that school. The school has
14 recognition within its procedure of its location to
15 relocate, the school's recognition of its resources to carry
16 out that procedure; and also the school's recognition of its
17 authority to carry out that procedure.

18 That would be some of the things that we would be
19 seeking in the implementing procedure.

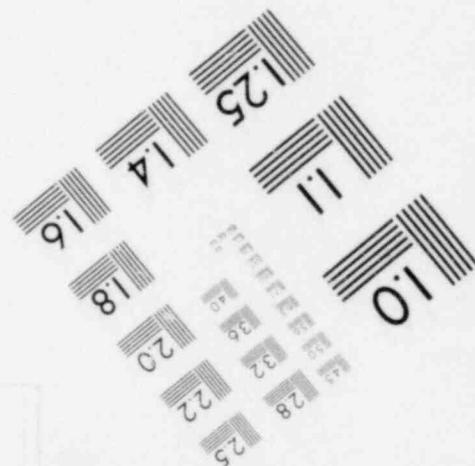
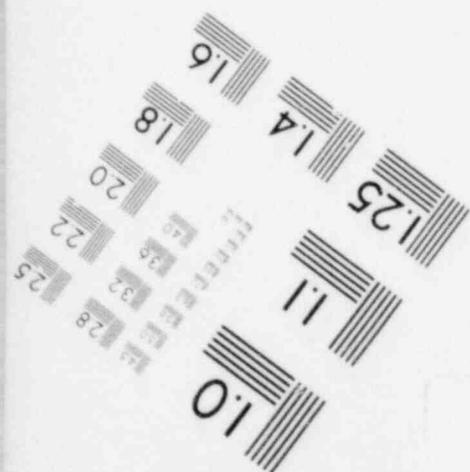
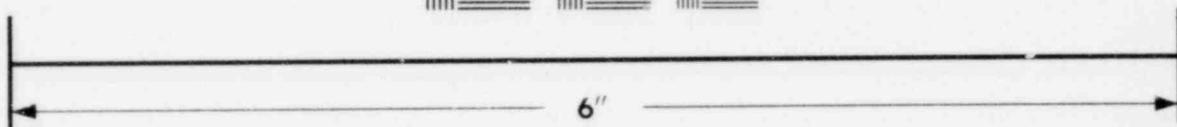
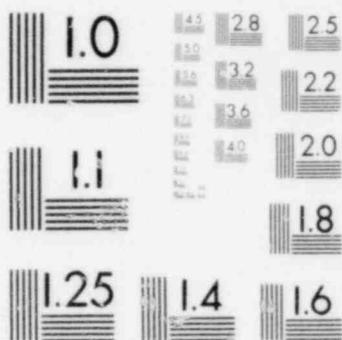
20 Q Does the county plan describe a concept of
21 operation that includes the staging of buses at a particular
22 facility for dispatch to the schools?

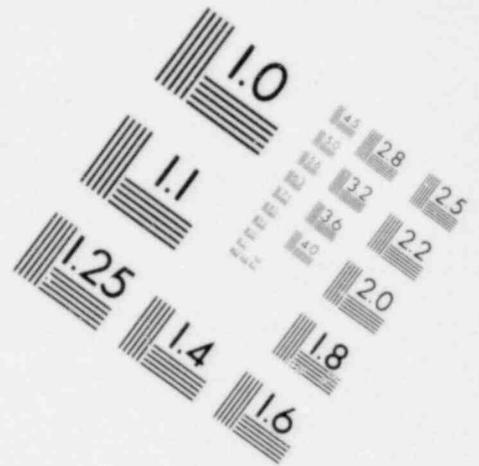
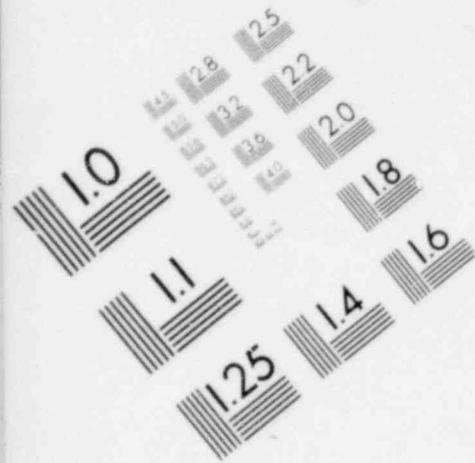
23 A (WITNESS BATH) Yes, it does.

24 Q And who is responsible for dispatching those
25 buses?

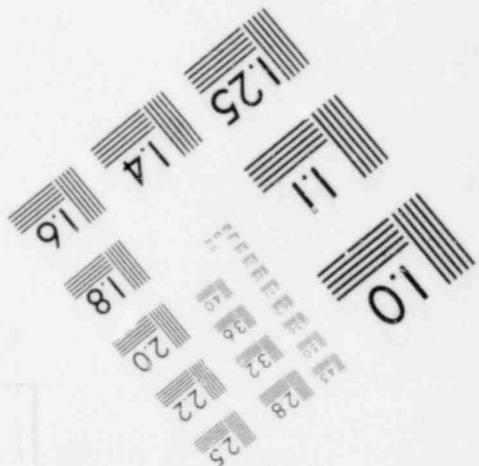
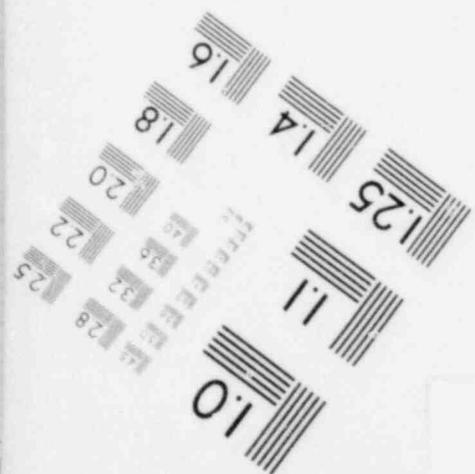
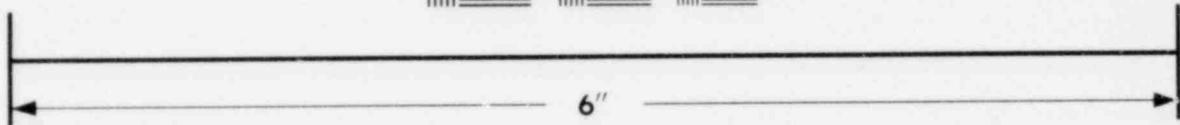
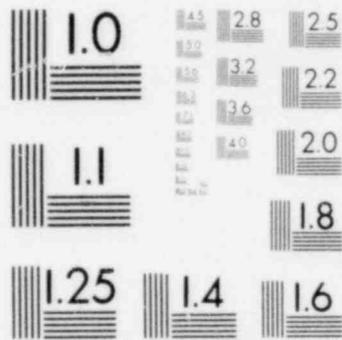


**IMAGE EVALUATION
TEST TARGET (MT-3)**





**IMAGE EVALUATION
TEST TARGET (MT-3)**



1 A (WITNESS BATH) My understanding it is
2 county-level government.

3 Q County-level government?

4 A (WITNESS BATH) Yes, that is correct.

5 Q Then I guess I am still confused. I mean I heard
6 the list that you identified for what you expect to see in
7 the school evacuation plans. But if the county-level
8 government is going to dispatch the buses to the schools,
9 what is it that the schools are going to do?

10 A (WITNESS BATH) It is my understanding that the
11 county-level government is going to dispatch the buses which
12 are at staging areas. But these are not necessarily the
13 buses that are under the school jurisdiction, but are buses
14 which are being brought in from outside the EPZ to augment
15 any additional requirements.

16 Q So the initial effort -- the primary response
17 would be for the local school district to evacuate its
18 schoolchildren with its available buses and if it needed
19 additional buses it would seek them from the county
20 dispatching area?

21 A (WITNESS BATH) Yes, the county-level emergency
22 management government, yes.

23 Q Do you happen to know whether when FEMA approved
24 radiological emergency response plans for the Sequoyah and
25 Farley facility, whether they reviewed school evacuation

1 plans?

2 A (WITNESS BATH) I do not know that.

3 Q Does FEMA have a policy with respect to that?

4 A (WITNESS ADLER) We have no policy with respect to
5 the review of school plans.

6 Q Would you expect that they would have reviewed
7 them in those two states?

8 A (WITNESS ADLER) I would have expected that a
9 review -- and this is speculation -- that a review would
10 have satisfied the reviewer that there was a means of not
11 only communicating the rightful information to the school
12 principal and schoolteachers, but that their were resources
13 to be available in a timely manner to get the children out
14 of the EPZ.

15 Q In FEMA's past experience with respect to
16 evacuations, does any of that experience involve evacuation
17 of schoolchildren from schools?

18 A (WITNESS PAWLOWSKI) Yes. During situations
19 involving tornados, inclement weather, hurricanes.

20 Q And what has FEMA's experience been with the
21 ability to evacuate schoolchildren from schools? I mean has
22 it been successful, unsuccessful? Has it taken a long
23 period of time, a short period of time?

24 A (WITNESS ADLER) I do not know the details of an
25 answer to that question. I do not -- I can answer it in

1 this way: The missions have been judged successful --
2 tornados, hurricanes, and the like. To the extent that they
3 have included moving children out as part of the population
4 in that success, it is evident that they did it.

5 Q Do you know whether in those particular operations
6 there were specific school-level evacuation plans?

7 A (WITNESS PAWLOWSKI) I believe it is normal state
8 policy across the country -- this is just my -- from having
9 experience as a schoolteacher at one time -- that schools
10 are required to have emergency plans that cover many
11 contingencies involving in-place school disasters and
12 evacuation. That is normal policy of emergency planning for
13 schools.

14 Q Does either Mr. Bath or Mr. Adler know whether
15 prior to the recent effort to upgrade emergency planning
16 around TMI the schools either in Pennsylvania or in this
17 area had in place such plans?

18 A (WITNESS BATH) Yes. It is my understanding --
19 and I cannot cite specifically where I reviewed it -- there
20 is school emergency procedures in the State of Pennsylvania
21 and school policy decisions which are available. Whether
22 they specifically are to evacuation or the release of
23 children -- and I am talking in relationship to the crisis
24 relocation planning and the in-place sheltering at schools.

25 Q You have not reviewed any of that?

1 A (WITNESS BATH) I have reviewed them in the
2 context of nuclear attack.

3 Q Did you find them acceptable at that time?

4 A (WITNESS BATH) They were acceptable in that they
5 released the children in crisis relocation to the families
6 to evacuate. The crisis relocation planning is based on a
7 72-hour scenario. In the decision to shelter in the case of
8 a short-warning basis, they were acceptable in that the
9 school accepts the responsibility for fallout protection to
10 the children.

11 MR. ZAHLER: Mr. Chairman, just so the Board can
12 follow at this point, I have finished my cross-examination
13 plan on this piece of testimony. I have a short bit of
14 follow-up related to the oral testimony these witnesses gave
15 as to their February, and then I will go to my
16 cross-examination plan for the March testimony.

17 BY MR. ZAHLER: (Resuming)

18 Q Mr. Pawlowski, do you have a copy of Commonwealth
19 Exhibit Number 3, which is the PEMA information pamphlet on
20 radiation, in front of you?

21 A (WITNESS PAWLOWSKI) Yes.

22 Q A few pages in, there is a section entitled "What
23 is Radiation?" Do you see that?

24 A (WITNESS PAWLOWSKI) Correct.

25 Q And the second paragraph there, there is a

1 comparison or reference to solar radiation. Do you believe
2 that such a reference provides a useful reference for people
3 who have no physical appreciation for atomic radiation?

4 A (WITNESS PAWLOWSKI) There is a difference between
5 the effects of nuclear radiation versus solar radiation.

6 Q And that is described in the paragraph following.
7 I am just going in terms of putting it in context. If
8 someone does not have a lot of experience with radiation, is
9 it a useful comparison, without saying that it is identical,
10 to analogize it to solar radiation?

11 A (WITNESS ADLER) Are you addressing the question
12 specifically to Mr. Pawlowski?

13 Q Anyone on the panel who feels competent to
14 answer.

15 (Panel of witnesses conferring.)

16 A (WITNESS ADLER) I have read this and thought hard
17 about that language, and I believe it to be limitedly
18 useful. Of course, there is a "not invented here" type of
19 reaction I have. I might have written it differently, and
20 anyone in this room might have written it differently,
21 including Mr. Pawlowski.

22 I would say limitedly useful is my reaction to
23 it.

24 Q Do you have anything to add, Mr. Pawlowski? My
25 question is in the context not of an atomic physicist but

1 someone who does not have an appreciation for what nuclear
2 radiation might be.

3 A (WITNESS PAWLOWSKI) The material could be
4 improved, in my opinion.

5 Q Do you find it misleading or untruthful to use
6 such an analogy?

7 A (WITNESS PAWLOWSKI) Not misleading or untruthful,
8 no.

9 DR. LITTLE: Mr. Pawlowski, do you think the
10 information comparing solar radiation and nuclear radiation
11 serves a useful purpose?

12 WITNESS PAWLOWSKI: It does serve a useful purpose
13 from the standpoint of putting it into a frame of reference
14 that the layman can understand. I think it serves that
15 particular purpose.

16 BY MR. ZAHLER: (Resuming)

17 Q Let me ask you to turn to your testimony of March
18 1981.

19 A (WITNESS PAWLOWSKI) It is electromagnetic
20 radiation.

21 DR. LITTLE: We were not finished with this
22 exchange.

23 MR. ZAHLER: I am sorry.

24 DR. LITTLE: I think some questioners previously
25 have wondered whether or not it might mislead the public to

1 fail to appreciate nuclear radiation's possibility of
2 causing biological damage. Do you think it is misleading or
3 gives a false sense of security to the layman who might read
4 it, in any sense?

5 WITNESS ADLER: Can I respond to that as well?

6 DR. LITTLE: Yes.

7 WITNESS ADLER: Either before or after, whichever
8 you prefer.

9 DR. LITTLE: Let Mr. Pawlowski answer first, and
10 then you can follow.

11 WITNESS PAWLOWSKI: In terms of biological damage
12 there is a difference between the biological damage produced
13 from a sunburn versus the biological damage produced from a
14 nuclear radiation. From that standpoint the comparisons are
15 not the same.

16 WITNESS ADLER: I do feel that explanation and
17 that analogizing can be far less misleading than an analogy
18 linking to a nuclear bomb or the experience which people are
19 most familiar with, the applications of nuclear explosives.
20 In that respect, it is better.

21 DR. LITTLE: If this brochure were going to be
22 revised, would you have some suggestions for revision of
23 that particular section, or do you think it is adequate as
24 it is?

25 (Pause.)

1 WITNESS PAWLOWSKI: In its present form I believe
2 it is adequate as is. Concerning improvements, I would seek
3 input from additional personnel other than myself. From the
4 standpoint of getting input from additional colleagues in
5 health/physics and public information people to determine
6 specifically how improvements could be made to improve the
7 public's perception of nuclear radiation and emergency
8 planning.

9 But in its present form, I believe that it does
10 the job that it is intended to do.

11 CHAIRMAN SMITH: I do not know how valuable any of
12 this testimony is. We can all read it.

13 The question is: What effect is there upon the
14 public? And I do not know if any one of us within this room
15 is an expert on how the public perceives language. But as
16 scientists, can you think of a more accurate way to explain
17 to the public that both time and intensity are
18 considerations to take into account in a simple, universally
19 understood way?

20 I mean what can be done better. That is what I am
21 trying to find out: What is a better demonstration to the
22 public? Not that we have any right to say how things should
23 be done better. But since there has been so much testimony
24 on it, how can we relate to the public that both time and
25 intensity are factors to be considered?

1 WITNESS PAWLOWSKI: Mr. Chairman, maybe I can
2 bring it down to this point. I tend sometimes to think from
3 the standpoint of more technical frames of reference, and
4 providing the information into a simple capsulized program
5 that the public can understand and appreciate, time exposure
6 to radiation, this does provide that appreciation from the
7 standpoint of what a layman can understand.

8 MR. COSGROVE: Mr. Chairman.

9 CHAIRMAN SMITH: Can you think of a better way,
10 though? Maybe if all of the critics of this or all the
11 proposers of this can think of a better way, maybe that is
12 one of the products of this hearing.

13 MS. GAIL BRADFORD: I would be glad to supply
14 better ways of doing it.

15 CHAIRMAN SMITH: Well, suggest it, you know. But
16 I have been thinking about this ever since the thing came
17 up. And you want something that is universally understood
18 at the very low level, and you want to set out what the
19 variables are.

20 MS. GAIL BRADFORD: Yes.

21 CHAIRMAN SMITH: And they could have picked rain,
22 maybe, you know, how long you stand in the rain and how hard
23 it is raining. I don't know. It just strikes me as logical
24 that sunshine is pretty universal and well understood and it
25 is damaging and not damaging depending upon time and

1 intensity.

2 MS. GAIL BRADFORD: Without really --

3 CHAIRMAN SMITH: Enough of that. I am just
4 pointing out to you that maybe you can come up with
5 something better and maybe you can have a receptive audience
6 on it. I do not think it is within our jurisdiction to
7 somehow tell people how to do things better. It may be
8 within our jurisdiction to find things inadequate. But
9 nevertheless, here is your forum, and perhaps you can do
10 something if you have better ideas.

11 But unless there are further questions on it,
12 let's defer that and go on.

13 MS. GAIL BRADFORD: I just would like to put in
14 one point here, which is there are numerous, numerous books
15 written about nuclear power from an antinuclear point of
16 view, and many of them contain descriptions of radiation and
17 how it affects people and this, that, and the next thing.
18 And I do not know how many of those books, the "no nukes"
19 books that these gentlemen have read. But there is a lot of
20 stuff in there that I would suggest would be more
21 informative in addition to or in place of some of that
22 stuff.

23 MR. COSGROVE: Mr. Chairman, I may be helpful at
24 this point.

25 Mr. Pawlowski, has FEMA put out information to the

1 general public on radiation in the past?

2 WITNESS PAWLOWSKI: FEMA has a contract to develop
3 materials to look at the problem of providing public -- an
4 understanding of nuclear radiation from the standpoint of
5 emergency planning for radiological incidents at nuclear
6 power plants.

7 But in the past, yes, FEMA has put out material in
8 regard to radiation for public understanding in the context
9 of nuclear attack. Other federal agencies have come up with
10 guidance and informational materials over the past to
11 provide overall understanding of what nuclear radiation is
12 in the context of frames of reference that people can
13 associate with, to develop an appreciation for radiation.

14 MR. COSGROVE: If someone were to call you, would
15 you be able to assist them in pointing that out?

16 WITNESS PAWLOWSKI: Correct.

17 DR. LITTLE: What is the due date on the
18 contract? When do you expect the contract to be fulfilled?
19 Is this coming out as an FEMA or NUREG document?

20 WITNESS PAWLOWSKI: FEMA has a contract with Nancy
21 Lowen & Associates to develop specific materials, public
22 information materials, and guidance on -- let me get
23 specific information I have on that.

24 (Witness reviewing document.)

25 I cannot cite a specific date as to when the

1 contract will be complete, but I do know FEMA is currently
2 reviewing materials which the contractor has supplied, and
3 this material, together with other public information
4 documents, FEMA is interested in putting out in the field to
5 help the states develop their public information program and
6 to make the public more aware of emergency planning from the
7 context of responding to nuclear reactor accidents.

8 FEMA is vitally interested in upgrading the level
9 of information on radiation and emergency planning. We
10 believe that a high visibility of both together can improve
11 the effectiveness of response in implementing emergency
12 plans if necessary. That is the major thrust of FEMA at
13 this time.

14 CHAIRMAN SMITH: I think if I were writing this
15 brochure -- and I am pleased that I did not -- I think I
16 would have had some caveat in there that, unlike sunlight,
17 radiation can cause harm without the person receiving the
18 radiation being aware of it, while in sunlight -- I think a
19 literal-minded person could take the assumption from here
20 that if you do not feel it it does not hurt.

21 But I think that too much has been said about this
22 language.

23 All right, anything further?

24 (No response.)

25 CHAIRMAN SMITH: Do you want to go on?

1 BY MR. ZAHLER: (Resuming)

2 Q Turning to pages 5 and 6 of your March testimony,
3 you discuss there that the York County plan is based only --
4 the population figures in the plan are based only on
5 resident population and do not include population
6 calculations based on a work force fluctuation and
7 time-of-year effects.

8 Are such population calculations included in
9 Licensee's evacuation time study?

10 A (WITNESS ADLER) They are.

11 Q In addition, on page 7 there is reference to
12 making appropriate consideration for transients. Does
13 Licensee's evacuation time study make an appropriate
14 consideration for transients?

15 A (WITNESS ADLER) It does.

16 Q And does Licensee's evacuation time study properly
17 account for variables such as adverse weather conditions?

18 A (WITNESS ADLER) Yes.

19 Q On pages 21 and 22 you discuss RACES. Could you
20 describe generally the functions that are performed by RACES
21 members under the York County emergency plan?

22 A (WITNESS BATH) This is a radio amateur
23 organization which is in -- it is traditionally part of --
24 it once was a formal part of the Civil Defense Emergency
25 Communications Net. Under FCC rules, if you are RACES

1 operator, licensed RACES operator, you are able to operate
2 on certain channels and you had certain functions. As part,
3 they were a formal organization of the local, state, or
4 county emergency organization.

5 The RACES operators in York County appeared to be
6 an extensive list of volunteers who have, I believe, it is,
7 two meter radio equipment and through cooperation -- and
8 they are apparently incorporated, work through the county in
9 natural disasters -- in our plan for fixed nuclear facility
10 accident.

11 Q Have they functioned effectively during past
12 emergencies?

13 A (WITNESS ADLER) Yes. The experience, as I
14 understand it, is major. It is different in each of the
15 counties, of course. But the experience in -- well, for
16 example, I am told that in Lancaster County the
17 relationships are so solid through experience and history,
18 historical working arrangements, that some of the RACES
19 people have taken offense at -- when approached -- to have
20 written agreements on the matter for relating in an reactor
21 accident.

22 Q I am going to get precisely to that point. Based
23 on your past experience, what you know about the local
24 groups here, do any of you have any reason to believe that
25 RACES members would not respond in the event of a

1 radiological emergency at TMI?

2 MR. CUNNINGHAM: I object to that question, Your
3 Honor. They just stated that they had no independent
4 knowledge. And the question calls for independent
5 knowledge. And I think Mr. Adler's statement was that he
6 only heard by hearsay that RACES members in Lancaster County
7 will -- are offended by being approached by these
8 agreements. If they know personally, that is -- obviously
9 that is not objectionable. If they do not know, that would
10 just be speculation at this point.

11 CHAIRMAN SMITH: Well, the hearsay rule is not
12 literally applied when people gather a broad base of
13 information, particularly in the course of their employment
14 when it is part of their duty to do so, is that the nature
15 -- there has to come a point where it becomes unreliable.
16 But I do not know if we have arrived at it.

17 MR. CUNNINGHAM: That is what I am getting at. If
18 it is unreliable and they do not know, that is one thing.
19 But the way Mr. Zahler's question was phrased, it was so
20 open-ended that it would lead to -- could lead possibly to
21 speculation, the way it was phrased.

22 CHAIRMAN SMITH: With your concern expressed, I
23 think we can have answers that might demonstrate how
24 reliable the information is.

25 MR. ZAHLER: Let me just ask the question, then I

1 will follow up with the basis for the answer I get to it.

2 BY MR. ZAHLER: (Resuming)

3 Q The question was: Based on your experience and
4 whatever knowledge you have with respect to local RACES
5 groups, does any member of the panel have any reason to
6 believe that RACES members would not respond in the event of
7 a radiological emergency . t TMI?

8 A (WITNESS ADLER) No.

9 Q Could you describe briefly for me the experience
10 or the basis on which you answered that question?

11 A (WITNESS ADLER) I talked with one of the PEMA
12 people about the status of RACES agreements, because FEMA
13 would like to see evidence of such agreements in the plans.
14 I have been told -- I have not seen it in writing -- that
15 there is a written agreement between York County and RACES,
16 that there is verbal agreement in Dauphin County, and that
17 in Lancaster, while it does not -- they do not have a
18 written agreement yet, they have, as I mentioned earlier, a
19 very solid working arrangement.

20 That is the extent of my knowledge on this
21 question.

22 Q As a practical matter, let's assume for a second
23 that there were no letters of agreement between RACES and
24 the local county governments. Based on your knowledge and
25 the relationship between those emergency management agencies

1 and their local RACES groups, would you find the lack of
2 such letters to be a deficiency?

3 A (WITNESS ADLER) It is an issue for consideration,
4 but is not a deficiency.

5 Q And you would not expect it to affect the
6 emergency response during an actual emergency situation;
7 that is, the existence or nonexistence of a letter of
8 agreement?

9 A (WITNESS ADLER) Generally, no.

10 CHAIRMAN SMITH: What would be the purpose of such
11 agreements, written agreements?

12 WITNESS ADLER: As I said at the outset, Mr.
13 Smith, I believe that the relationships differ somewhat one
14 county to the other. One of the purposes of having the
15 written agreements would be to show FEMA in our plans, as
16 reviewed, a uniformity of arrangements or commitments,
17 uniformity of commitments between RACES organizations and
18 the counties.

19 CHAIRMAN SMITH: That is so there is uniformity of
20 understanding of what the function would be?

21 WITNESS ADLER: Of what each party's
22 responsibilities would be.

23 CHAIRMAN SMITH: It is an identification of
24 responsibilities?

25 WITNESS ADLER: It would be an identification of

1 responsibilities, rather than an implicit assumption of those
2 responsibilities.

3 CHAIRMAN SMITH: So that -- so that the
4 participants know what the responsibilities are and what can
5 be expected as compared to an agreement for the purpose of
6 enforcing the responsibilities?

7 WITNESS ADLER: That is correct.

8 DR. JORDAN: Could you give an example of what a
9 particular operator might be called upon to do in the case
10 of a radiation emergency, say, at TMI, which is in many ways
11 distinct from major catastrophes, nationwide sort of thing
12 which I can see the operators could play a role? But in the
13 limited case of a county or a small area, I just do not see
14 quite what the operator does.

15 WITNESS ADLER: I would like Mr. Bath to answer
16 this after I make one comment. The function of the radio
17 amateur is the same regardless of where and in what vicinity
18 he is communicating with. He is augmenting other avenues of
19 communication and dissemination of vital information, in
20 this case to the people nearby.

21 WITNESS BATH: Specifically, in the York County
22 plan they plan to utilize RACES within their county EOC.
23 There is a plan to provide RACES operators at local -- the
24 municipality decisionmaking area. I do not want to call
25 them EOCs, although they do refer to them as EOCs.

1 There is a plan to provide them at schools, to
2 provide alternate communications. This is consistent with
3 the way they utilize them in a natural disaster where PACES
4 operators have been willing to move their equipment to a
5 location where local government feels it has a deficiency in
6 communications.

7 They have existing communications in their ECCs to
8 communicate with these operators. The volunteer takes his
9 equipment out to that location and will provide a means of
10 either local government or whatever official is at that
11 location to communicate if in fact telephones are not
12 available.

13 DR. JORDAN: All right, he gets to the location,
14 then turns on his set, and who does he talk to?

15 WITNESS BATH: He talks to the county emergency
16 operations center where there is equipment to communicate
17 back to him.

18 DR. JORDAN: So there is a plan for
19 station-to-station communication?

20 WITNESS BATH: Yes, sir. And the county EOC is
21 the net control on their range of frequencies.

22 DR. JORDAN: I see. Okay. Thank you.

23 BY MR. ZAHLER: (Resuming)

24 Q In response to question 44 on pages 27 and 28 of
25 your testimony, you discuss the availability of local and

1 backup hospital and medical services for York County. Am I
2 correct that Appendix 9 of the state plan -- that is, the
3 State Department of Health plan, Appendix R of that plan --
4 lists 18 hospitals to provide capable of radiation treatment
5 in the Three Mile Island area?

6 A (WITNESS BATH) I have not counted them, but I am
7 aware there are numerous on that list.

8 Q If you could just get it in front of you, I want
9 to ask a few questions about some of the hospitals on the
10 list.

11 (Pause.)

12 A (WITNESS BATH) I am on page R1.

13 Q If you look at pages R1 and R2, the state has
14 denominated 18 hospitals capable of radiation treatment in
15 the Three Mile Island area.

16 A (WITNESS BATH) Yes, sir.

17 Q In addition, of that 18 eight of them have an
18 asterisk that indicates that these are primary support
19 hospitals; is that correct?

20 A (WITNESS BATH) Yes, sir.

21 Q And of that group two of them are specifically
22 listed in York County, numbers 7 and 8?

23 A (WITNESS BATH) Yes, sir.

24 Q In your view, is this listing of hospitals
25 adequate to provide medical support in the event of a

1 radiological emergency at Three Mile Island?

2 A (WITNESS BATH) Yes, sir, it appears adequate.

3 Q Aside from having a nice written plan, is there
4 any reason why the county plans have to duplicate this list
5 in their plans?

6 A (WITNESS BATH) If the county plans made reference
7 to -- since county emergency management coordinators in fact
8 do have the state disaster operations plan, of which
9 Appendix or Annex E is -- if they made reference to and
10 utilization for, the concern is that procedures, i.e., the
11 dispatchers are aware of which hospitals, since this is a
12 selection of hospitals, they would transmit people to -- to
13 that degree, we would like to see something in the county
14 plan.

15 Q The state plan is available to the county
16 emergency management coordinator and his dispatchers; is
17 that correct? The state plan is available to them; they
18 have it?

19 A (WITNESS BATH) Yes, sir.

20 Q In some respects, it is more of a training
21 function -- that is, that they know of these hospitals and
22 include them in their operating procedures; is that
23 correct?

24 A (WITNESS BATH) I cannot speak to the knowledge
25 that that individual has. The plan is available. I cannot

1 guarantee he has read it.

2 Q You misunderstood my question. I did not ask you
3 to testify as to whether they actually know it. What I am
4 asking you is whether the concern here is one of a training
5 function -- that is, that they be trained to know that these
6 hospitals are available in the state plan and include them
7 in their operating procedures?

8 A (WITNESS BATH) Yes.

9 Q If you could turn to page 29 of your testimony --

10 CHAIRMAN SMITH: Let's take our midmorning break.
11 We will return in 15 minutes.

12 (Brief recess.)

13 CHAIRMAN SMITH: Back on the record.

14 MR. GRAY: Mr. Chairman, we are still making
15 copies of that exercise guidance. And as soon as we have
16 it, we will distribute it.

17 CHAIRMAN SMITH: Okay. Now, with respect to the
18 SECY papers, they are very lengthy. I looked them over very
19 briefly. Mr. Brenner has looked them over more thoroughly.
20 I do not think that they are necessary. They might have
21 been desirable to have them for context, but I do not think
22 that they are so desirable as to burden the record, nor are
23 they necessary.

24 I think the approach should be that we will take
25 them -- we will take the three sheets of paper, the March

1 26, 1981, memorandum and the two attachments, take official
2 notice of that, unless parties have a reason to object for
3 not having the SECY papers or portions of them received in
4 context. So we will allow parties an opportunity to examine
5 the SECY papers and either object to that procedure or
6 propose specific parts of it.

7 But I see no need to take it all in. And we will
8 again defer that problem until next week.

9 BY MR. ZAHLER: (Resuming)

10 Q Gentlemen, looking at page 29 of your testimony,
11 the Contention there lists ten agencies for which letters of
12 agreement are alleged to be necessary. I am correct, I
13 understand from your testimony, that you conclude with
14 respect to items 4 and 10, letters of agreement are not
15 necessary. Is that correct?

16 (Pause.)

17 A (WITNESS BATH) That is correct.

18 Q Let me start with item 9, the York Chamber of
19 Commerce. I understood your testimony that they now provide
20 a backup or support role that is not specified in 0654; is
21 that correct?

22 A (WITNESS BATH) That is correct.

23 Q In that event, why is there a need for a letter of
24 agreement with that group?

25 A (WITNESS BATH) Because at present it will be a

1 backup support, but at present the siren activation system
2 which is in existence would appear to depend upon their
3 services.

4 Q If Licensee installs its proposed siren system,
5 will it be necessary for a letter of agreement with the York
6 Chamber of Commerce?

7 (Panel of witnesses conferring.)

8 A (WITNESS ADLER) It certainly will not be
9 critical. I would not want to say it would not be nice to
10 have, but nonessential, yes.

11 Q Mr. Adler, lots of things are nice to have. The
12 question is: Is it necessary to have an effective plan?

13 A (WITNESS ADLER) No.

14 Q Going up the next one to Adams County, that is
15 designated as a support county under the state plan for York
16 County; is that correct?

17 A (WITNESS BATH) No.

18 Q It is not?

19 A (WITNESS BATH) That is correct.

20 Q What are the support counties for York County?

21 A (WITNESS BATH) There are none.

22 Q Are there support counties --

23 A (WITNESS BATH) In the state-level plan.

24 Q Does the state-level plan identify functions to be
25 served by support counties?

1 A (WITNESS BATH) Yes, it does.

2 Q Does the York County plan identify Adams as a
3 support county?

4 A (WITNESS BATH) Yes, it does.

5 Q Since Adams is a county government, a body of
6 government, what is the need for a letter of agreement with
7 that group?

8 A (WITNESS BATH) It is a mutual aid agreement, I
9 think, to bring to the attention of the Board as to why York
10 County further identifies the support county that the state
11 does not is that York County's plan, the present plan, is
12 based on a 20-mile evacuation zone in which the support
13 services required were greater than those considered when
14 the state was providing its list of support counties based
15 on a ten-mile zone.

16 Q Is it your view if that a letter of agreement was
17 not obtained with Adams County, that the county would not
18 respond?

19 A (WITNESS BATH) No.

20 Q You would expect that they would respond?

21 A (WITNESS BATH) Yes.

22 Q Could the function of the letter of agreement be
23 served equally as well rather than having a letter of
24 agreement, just a statement in the plan that York has
25 coordinated with Adams County, they understand their

1 responsibilities?

2 A (WITNESS BATH) Yes, if it could be verified
3 through Adams County officials that they recognize that
4 responsibility.

5 Q If York County put in their plan and it said that,
6 "We talked to Adams, and we reached mutual agreement," that
7 is not sufficient?

8 A (WITNESS ADLER) That is sufficient.

9 CHAIRMAN SMITH: Isn't this true in many areas
10 where you have identified the functional equivalent of a
11 letter of agreement will be satisfactory?

12 WITNESS ADLER: A functional equivalent will be
13 satisfactory.

14 MR. ZAHLER: That is correct. It seems to me
15 especially appropriate where you are talking about
16 governmental bodies and not private bodies.

17 BY MR. ZAHLER: (Resuming)

18 Q Would the same thing be true for the State of
19 Maryland listed as item 7?

20 A (WITNESS BATH) I do not see that as equal to
21 between two counties within the same state.

22 Q Well, but if York said that they had been in touch
23 with the State of Maryland, the State of Maryland had told
24 them that they would provide the overflow mass care
25 capacity, would you have any reason to doubt the validity of

1 York County's representation?

2 A (WITNESS BATH) I have in my possession a letter
3 now from the State of Maryland as to the support services
4 alluded to in -- there are two letters of agreement we were
5 seeking. One was for the health care services and so forth,
6 and they did secure that. If in fact York County, in
7 consideration of a ten-mile evacuation, still felt that
8 overflow was required, we would want to know that there is
9 agreement within Maryland that they would accept those
10 persons.

11 Q My question to you is: That agreement could be
12 provided by York County representing that they had been in
13 touch with someone and there had been agreement?

14 A (WITNESS ADLER) We do not want to preclude a
15 functional equivalent as meeting our need.

16 Q I understand. And therefore, what you are telling
17 me is that if there is a functional equivalent that
18 satisfies your need, that that is acceptable as a letter of
19 agreement?

20 A (WITNESS ADLER) Yes.

21 Q Do you know whether the York area transit
22 authority is a governmental body or municipal body? Is it a
23 private entity?

24 A (WITNESS BATH) I do not have that knowledge.

25 Q Would that make a difference? I mean suppose it

1 was a municipal body.

2 A (WITNESS BATH) I would have problems without
3 knowing the degree of control over the services provided as
4 part of the government. And that is what I would be looking
5 for.

6 Q So depending upon what the status of the York Area
7 Transit Authority was, what was explained to you about it,
8 there might not be a need for a letter of agreement in that
9 instance?

10 A (WITNESS BATH) That is correct. That is part of
11 the compensation that can be provided.

12 Q What type of letter of agreement do you
13 contemplate for the school districts?

14 (Pause.)

15 A (WITNESS BATH) It has been characterized that
16 school districts are rather independent and, therefore,
17 would in fact seek to reserve their judgment of actions.
18 What we would expect in a letter of agreement is that they
19 would conform to so that there could be some coordination of
20 the school districts' services at the same time by the
21 county. And that is what we would be seeking: a commitment
22 by the school districts to conform to information provided
23 by York County.

24 Q And again, a functional equivalent indicating that
25 there had been discussions and mutual agreement reached

1 might be satisfactory to FEMA?

2 A (WITNESS ADLER) Yes.

3 Q Number 4 I am going to skip over. Number 3 we
4 talked about. Number 2 I think you have talked about.

5 Did I understand that you believe that York County
6 has already received a letter of agreement with the American
7 Red Cross?

8 A (WITNESS ADLER) We have not seen that agreement
9 letter. We understand it exists.

10 Q And even if it did not exist, do I understand
11 correctly from your testimony you would still expect the
12 American Red Cross to respond in the absence of an
13 agreement?

14 A (WITNESS ADLER) We would, just as they have in
15 other disasters.

16 Q On pages 30 and 31, the bottom of 30 to the top of
17 31, you discuss the efforts to obtain a list of homebounds
18 and invalids. Could you identify for me -- strike that.

19 Is such a list specifically identified in the
20 guidance of 0654?

21 A (WITNESS BATH) No. But provisions to be made for
22 it is identified.

23 Q Am I correct that York County is attempting to
24 make provisions for homebounds and invalids in part by
25 distributing a brochure that asks such people to identify

1 themselves to the local county emergency management
2 coordinator?

3 A (WITNESS BATH) In part.

4 Q In addition, does the York County plan contain a
5 listing of homes of the elderly and nursing care facilities
6 along with an identification of ambulances, wheelchairs, and
7 other types of vehicles necessary to evacuate those
8 facilities?

9 A (WITNESS BATH) Yes, it does.

10 Q Can you explain to me why it is the combination of
11 those two that that is not sufficient to provide for
12 homebounds and invalids?

13 A (WITNESS BATH) Because it does not provide for
14 persons who may not be in the category of nursing homes, and
15 it does not provide for a follow-on to what responses were
16 received through the public information brochure. There is
17 a responsibility implied in the assignment to the
18 municipalities that both the fire as well as the emergency
19 management coordinator should provide a list so that
20 measures can be taken to help those persons.

21 Q Can you identify for me where that is in the York
22 County plan?

23 A (WITNESS BATH) Within the York County plan?

24 Q Yes, that assignment to municipal entities.

25 A (WITNESS BATH) Yes. It will take a while,

1 though.

2 (Witness reviewing document.)

3 Q Mr. Bath, to conserve time, we will come back to
4 this. Just so the record is clear, the NUREG criteria that
5 you refer to, which is J10D, states: "means for protecting
6 those persons whose mobility may be impaired due to such
7 factors as institutional or other confinement." Is that
8 correct? It is page 61.

9 A (WITNESS ADLER) Yes.

10 Q It does not really identify homebounds, not in
11 institutional or other confinement; does it?

12 A (WITNESS BATH) No.

13 Q And why is it that a request that those people
14 take it upon themselves to identify themselves to the county
15 emergency coordinator is not sufficient?

16 (Pause.)

17 A (WITNESS BATH) In our use of NUREG-0654 we did
18 not feel bound, just as we do not feel bound that a single
19 criteria not met means that the planning standard is not
20 adequately met, nor do we feel bound that we can only look
21 at reasonable requirements as set forth by the criterion.

22 Q Mr. Bath, I am not suggesting that this is not
23 something that should not be inquired into, that it is not
24 important in that sense. The question I have, however, is,
25 especially given that there is not a special criteria that

1 addresses it, why is it not enough for the county to tell
2 these people that it is your responsibility to notify us if
3 you need assistance?

4 A (WITNESS ADLER) It is -- it is not inadequate,
5 but the degree of adequacy is enhanced if we get that.

6 Q I did not hear the end of it. "The degree" --

7 A (WITNESS ADLER) The degree of adequacy, in our
8 judgment, in the review of the plans concerning
9 follow-through is enhanced when the active party is the
10 county plan rather than the individual citizen. The
11 combination of both is, of course, essential.

12 Q But might the plans be adequate based solely on a
13 list compiled from residents who had responded to the
14 brochure as needing assistance?

15 A (WITNESS ADLER) Yes, it might be adequate.

16 Q So then you might not necessarily require a list
17 of homebounds and invalids to be compiled by municipal
18 governments; is that correct?

19 A (WITNESS ADLER) If you recall, we do not require
20 anything, really, putting it very bluntly.

21 Q You are right.

22 A (WITNESS ADLER) It is an issue which will be
23 considered.

24 Q I used the wrong term. It is correct that you
25 could approve the plans without requiring municipal entities

1 to compile a list of homebounds and invalids; isn't that
2 true?

3 A (WITNESS ADLER) One moment.

4 (Panel of witnesses conferring.)

5 A (WITNESS BATH) I believe it was provided by Mr.
6 McConnell, that wherein York County provided that
7 responsibilities were going to be depended upon within
8 municipalities, that we would seek to see those procedures
9 and review them.

10 To that extent, we would expect to see
11 consideration and the capability commensurate with
12 responsibility assigned to that municipality. And I would
13 feel that that list would fall in that category.

14 Q I understand that as a general principle. The
15 question I have is the application in this instance which
16 is, given Mr. Adler's previous testimony that compiling a
17 list at the county level based on a response to the brochure
18 may be adequate, why is it that there is a need to go down
19 to the municipal or local level to do additional work?

20 A (WITNESS ADLER) When we see that list, we may
21 make the judgment that that need is in fact met.

22 Q Did you happen to know whether in approving the
23 Alabama and Tennessee plans for the Farley and Sequoyah
24 facilities lists of homebounds and invalids were required?

25 A (WITNESS ADLER) I do not know.

1 Q On pages 31 and 33 of your testimony you talk
2 about certain concerns relating to the adequacy of
3 radiological monitoring equipment. The question I have for
4 you, the last sentence in the answer to 48 says, "The State
5 was informed by FEMA of this deficiency and is working with
6 the county to correct it." Is the material included in the
7 state plan in Appendix 8 -- that is, the BRP plan, section
8 14 -- and in Appendix 16, which is radiological exposure
9 control, adequate to cure this deficiency?

10 A (WITNESS BATH) Yes.

11 Q Pages 34 to 36, you discuss the question of
12 dispatching buses to pick up schoolchildren. Could you
13 describe a method satisfactory to FEMA for effecting that?

14 A (WITNESS ADLER) Give us just a moment.

15 (Panel of witnesses conferring.)

16 A (WITNESS ADLER) Could you ask the question again
17 just to refresh us?

18 Q At pages 34 to 36 and page 60 you talk about the
19 question of dispatching buses to pick up schoolchildren and
20 those without other means of transportation. It says you
21 are looking for something more in terms of procedures. My
22 question to you is what would be satisfactory to FEMA for
23 that purpose?

24 (Witnesses reviewing document.)

25 A (WITNESS BATH) Without the data which was

1 provided in the time estimation study, it was difficult for
2 us to determine whether the resources identified within the
3 York County plan were sufficient to meet the requirements.

4 With that document and the exceptions to that
5 document, we can then look and see the procedure of having
6 buses staged at vo tech schools does not appear inconsistent
7 with our concept of how it might be accomplished.

8 Q Is what you are telling me, Mr. Bath, that in
9 connection with Licensee's evacuation time study and
10 information available to you from the county plans, that you
11 can perform the analysis to determine whether the method for
12 dispatching buses is adequate?

13 A (WITNESS BATH) Yes, we should be able to.

14 Q By the way, just so it is clear, because there may
15 have been some confusion in your previous oral testimony, is
16 it true, based on the response that you give at the top of
17 page 41, that FEMA does not believe there is a need for
18 written procedures governing the distribution of gasoline or
19 wrecking services?

20 A (WITNESS ADLER) Yes.

21 Q Page 49 you discuss the need for substitute
22 emergency management coordinators. First of all, what level
23 are we talking about? Are we talking about county or local
24 emergency management coordinators?

25 A (WITNESS ADLER) Primary local. "Local" which

1 means municipalities or any level of government below
2 county.

3 Q There are substitutes at the county level for the
4 emergency management coordinators; is that correct?

5 A (WITNESS BATH) Yes. There may even be
6 substitutes at the local or municipal level. This criticism
7 is based on an alerting list which lists only one point of
8 contact not on the establishment of a local municipal
9 capability.

10 Q Is there any evaluation criteria in 0654 that
11 specifies in addition to primary and substitute emergency
12 management personnel at the state and county level that
13 there must also be such personnel at each individual borough
14 or township?

15 A (WITNESS ADLER) No. But 24-hour capability is
16 the main guidance, the most important.

17 Q And that exists at the county level; is that
18 correct?

19 A (WITNESS ADLER) Yes, it does.

20 Q What function do you see the local emergency
21 management coordinators performing?

22 A (WITNESS BATH) Those are functions assigned to it
23 within the York County plan.

24 Q And what are those functions?

25 A (WITNESS BATH) I just do not know whether I can,

1 off the top of my head, give you a specific list. But among
2 them is the coordination of the emergency services at the --
3 at his disposal, to provide the picking up of homebounds or
4 invalids on his specific list would be one. And that is why
5 we were seeking those specific procedures as an example.

6 Q And who would have the responsibility for
7 implementing that pickup of homebounds and invalids?

8 A (WITNESS BATH) It is my understanding, although I
9 have not found the section in the York County plan, it is
10 that local emergency management coordinator.

11 Q He has responsibility for managing. Who would
12 undertake the function?

13 A (WITNESS BATH) It is not clearly -- that clearly
14 established. The fire personnel are also assigned the
15 responsibility to provide the list, presumably to provide
16 their services to do that.

17 Q Let's assume for a moment that it is either fire
18 or the police. Do they have representatives at the county
19 EOC?

20 A (WITNESS BATH) Yes, they do.

21 Q And could their resources therefore be coordinated
22 in the absence of the local emergency management
23 coordinator?

24 A (WITNESS BATH) Yes, they could.

25 Q And isn't that really a functional equivalent for

1 the substitute you were talking about?

2 A (WITNESS BATH) Yes, most clearly.

3 Q Can you think of any other instance where you
4 would use a substitute local emergency management
5 coordinator?

6 A (WITNESS BATH) The local emergency management
7 coordinator within York County is responsible for
8 designating the pickup points, in that he has the best
9 knowledge of where such pickup points would be to the
10 advantage of persons who might not have transportation.

11 Q That is a preplanning function or a function to be
12 performed during the emergency?

13 A (WITNESS BATH) That is a preplanning function.
14 But because it is a preplanning function, I would also seek
15 to see that such points are monitored to ensure that such
16 persons are picked up from that point.

17 Q We are going to handle both aspects of that. You
18 would not need a substitute to do that preplanning function?

19 A (WITNESS BATH) No.

20 Q With respect to the monitoring of those points,
21 who would actually do that monitoring?

22 A (WITNESS BATH) I would say local police or fire
23 in the conduct of their normal duties should also be able to
24 monitor that.

25 Q And that again could be coordinated by the county

1 EOC?

2 A (WITNESS BATH) That is correct.

3 Q Any other examples?

4 A (WITNESS BATH) Not offhand. Oh, wait, yes, I
5 have the other example, which may be -- well, I will not
6 lead you.

7 Q I lead you --

8 A (WITNESS BATH) In the notification process which
9 may be required, if in fact the coverage of warning via the
10 siren system is incomplete.

11 Q Assuming for a second that the coverage of the
12 siren system is in fact incomplete and there was a need for
13 this backup notification system, could that function also
14 again be coordinated from the county EOC?

15 A (WITNESS BATH) Yes, it could.

16 Q On page 52 of your testimony, on the last line,
17 the third word, should that be "personnel" or "personal,"
18 p-e-r-s-o-n-a-l, instead of p-e-r-s-o-n-n-e-l?

19 A (WITNESS BATH) Yes.

20 Q And do you so correct your testimony?

21 A (WITNESS BATH) Yes. I thank you.

22 MR. ZAHLER: I have no further questions.

23 (Board conferring.)

24 DR. LITTLE: Mr. Cosgrove, I understand that
25 somebody from FEMA will be able to tell us how the basic

1 assumptions, basic planning assumptions and time evacuation
2 are reviewed by FEMA. Should I address that to this panel,
3 or how should this be handled? This was an outstanding
4 question from yesterday.

5 MR. COSGROVE: The evacuation time estimate study
6 utilization would be at the region, from my understanding of
7 it. The national office would consider whatever is provided
8 in the file that is submitted by the region for review and
9 issuance on findings and determinations.

10 DR. LITTLE: Mr. Urbanik said specifically that he
11 did not review or audit the basic assumptions which went
12 into the Parsons, Brinckerhoff study or the state study,
13 either one, for that matter. This panel has not looked into
14 the basic planning assumptions or audited them to see if
15 they were the right ones to choose, whether the assumptions
16 made any sense. Where does that review take place?

17 (Counsel for NRC conferring.)

18 MR. COSGROVE: It is my understanding that the
19 State of Pennsylvania is going to review their planning in
20 light of the study and some possible differences between
21 their planning and the study, and that eventually that would
22 be considered when the plan is submitted through the
23 region.

24 (Board conferring.)

25 CHAIRMAN SMITH: Do you have follow-on?

1 DR. LITTLE: Mr. Gray -- maybe I should have asked
2 Mr. Gray; I think he knows what I am after.

3 MR. GRAY: These gentlemen, Mr. Bath and Mr.
4 Adler, will be waiting for an indication from the state as
5 to its intent upon using the Licensee's evacuation time
6 estimate study as well as any differing or modification to
7 planning, say, evacuation routes, arrived at by the
8 State-Licensee discussions on the use of that Parsons,
9 Brinckerhoff evacuation time estimate study.

10 At the time that the state indicates that it is --
11 assuming it indicates that it will be using the Parsons,
12 Brinckerhoff study and will be modifying its planning
13 accordingly, if it determines to modify its plans
14 accordingly, then these gentlemen will review -- will
15 compare the study assumptions to the planning assumptions,
16 state and local planning assumptions.

17 DR. LITTLE: So, sometime in the future that
18 analysis which was specifically not done by Mr. Urbanik will
19 be done, but it cannot be done right now until the state and
20 Parsons, Brinckerhoff studies have been reconciled to each
21 other or accommodations have been made?

22 MR. GRAY: It will be evaluated again once it is
23 determined how and if the Parsons, Brinckerhoff study is
24 going to be used.

25 MR. ZAHLER: Dr. Little, based on this

1 conversation, I guess I have one follow-up question to the
2 panel.

3 MS. GAIL BRADFORD: I have a question of Mr. Gray
4 on what he just said, if I may: Who will evaluate it? We
5 have established that these witnesses do not have
6 credentials in traffic engineering.

7 MR. GRAY: This is a comparison of the time study
8 assumptions to the local planning assumptions, evacuation
9 routes which are used, that sort of thing. And that would
10 be these gentlemen with their knowledge of the state and
11 local planning.

12 MS. GAIL BRADFORD: Would they have any way of
13 evaluating the consequences of the differences? I mean the
14 population of Steelton-Highspire that is going either one
15 way or the other, depending on whose plan you are looking
16 at.

17 MR. GRAY: I am told that they can call on the
18 resources of the regional assistance committee also for that
19 type of evaluation.

20 WITNESS ADLER: Indeed. Specifically, Department
21 of Transportation is represented on the RAC, and we would
22 rely heavily on his interpretations.

23 BY MR. ZAHLER: (Resuming)

24 Q Mr. Adler, am I correct that one of the purposes
25 or functions to be served by an evacuation time study is to

1 identify routings, for example, where the particular
2 evacuation route may be optimized or improved, given the
3 results of the evacuation time study?

4 A (WITNESS ADLER) Yes.

5 Q And in addition, that the evacuation time study
6 may identify critical bottlenecks or links that would
7 require traffic control and that that type of information
8 should be factored into the planning, that the plan should
9 be revised to reflect the findings in the study?

10 A (WITNESS ADLER) Yes.

11 MS. STRAUBE: I have a clarification to make.
12 When Ms. Bradford was questioning about those links, I think
13 it is 126-127-128, she stated that Mr. Lothrop had stated in
14 his testimony that the state was going to change that
15 routing. And I agreed with her. And she was wrong, and I
16 was wrong also, I believe.

17 I looked up in the transcript, and the discussion
18 is contained at pages 18031 through 18034. And in fact, the
19 question apparently was never specifically asked whether the
20 state would change the routing. Therefore, there is no
21 answer to it, either.

22 MS. GAIL BRADFORD: Could we just get an answer to
23 that, since Mr. Lothrop is here?

24 CHAIRMAN SMITH: Would you care to answer it?
25 Were you following the discussion, Mr. Lothrop?

1 (Pause.)

2 CHAIRMAN SMITH: I think we should give Mr.
3 Lothrop an opportunity to.

4 MR. LOTHROP: I think I can -- I think I can
5 handle it at this time, and I am only going to reference the
6 testimony that I gave, and I would like to take this up
7 here. And this is a question presented by Ms. Bradford, and
8 I am quoting:

9 "It does not seem to me, just as a citizen, that
10 people who live in Steelton could be reasonably expected to
11 head for the plant when they are told to evacuate the area.
12 In fact, I think that notion sounds patently ridiculous. Do
13 you expect that people will follow these routes? Is that
14 your assumption?"

15 It is our assumption. And from that, I could go
16 on to say that the reason, as I expressed, is that in
17 analyzing and developing that direction, it was determined
18 that from that point in our analysis, it took less time to
19 reach the same opposite point headed in the other direction
20 by going down and getting on a much faster and larger
21 route.

22 I believe that the testimony did go on to say that
23 there were differences in the two analyses, which we would
24 have to resolve.

25 So the answer to the question is not a "Yes" or

1 "No" at this time whether we are going to change. It will
2 be based upon our mutual agreements on the disparities
3 within the state analysis and the Parsons, Brinckerhoff
4 analysis.

5 CHAIRMAN SMITH: Okay. But also, later on in the
6 testimony, however, there was a statement that the public
7 would not be required to travel in a direction toward the
8 plant. So you are qualifying that?

9 MR. LOTHROP: That was not a --

10 CHAIRMAN SMITH: That is not right there, but it
11 is later on. I do not have it.

12 MR. LOTHROP: I believe that was an analysis of
13 the Parsons, Brinckerhoff study.

14 CHAIRMAN SMITH: Okay.

15 (Board conferring.)

16 CHAIRMAN SMITH: Don't look for it on my account.
17 That was the analysis -- you are correct; you identified
18 it.

19 All right, do you have follow-on?

20 MS. GAIL BRADFORD: Yes, sir. Is Mr. Zahler
21 finished?

22 MR. ZAHLER: Yes.

23 CHAIRMAN SMITH: Yes. How much follow-on do you
24 have?

25 MS. GAIL BRADFORD: There are three things. One

1 is real follow-up, and the other two are things I should
2 have asked this morning.

3 CHAIRMAN SMITH: How long do you have?

4 MS. GAIL BRADFORD: I do not think it is very
5 long.

6 CHAIRMAN SMITH: All right. Do you have -- all
7 right, go ahead.

8 BY MS. GAIL BRADFORD: (Resuming)

9 Q One relates to the quotation from the article by
10 Richard Wilson guest editorial which you read from, Mr.
11 Pawlowski. It appears at transcript 19,066. Is this
12 analysis that you quoted of the varying time to onsets. Do
13 you think this is a generally good analysis, or do you -- an
14 does FEMA -- FEMA regard this as a good analysis?

15 A (WITNESS PAWLOWSKI) FEMA does not have a position
16 on it. I brought that up as a response to the question
17 which you were trying to get at. It was the latest
18 information that I had available to cope with and bring to
19 bear on the question within the context as you asked it.
20 Okay.

21 Q Does that mean that you regard this as useful and
22 accurate information?

23 A (WITNESS PAWLOWSKI) I think it is a useful
24 planning tool.

25 Q Thank you.

1 DR. JORDAN: I did not hear your question. Would
2 you say it again? I did not get the answer.

3 MS. GAIL BRADFORD: His answer was he regards it
4 as a useful planning tool.

5 WITNESS PAWLOWSKI: But realize, there are many
6 tools that you can bring to bear on emergency planning.
7 That is just one frame of reference, not necessarily the
8 specific frame of reference upon which to base all
9 planning.

10 DR. JORDAN: I guess I need to know to what extent
11 do you use this? Has it entered into any of your criteria,
12 your plans, or anything else, this reference that we are
13 talking about?

14 WITNESS PAWLOWSKI: No. I brought it up from the
15 standpoint of the context of the question that was asked.
16 Okay.

17 DR. JORDAN: I guess the fact that you carry it
18 with you -- did you anticipate that that question was going
19 to get asked; was that the reason you brought it?

20 WITNESS PAWLOWSKI: No, sir.

21 DR. JORDAN: Then why do you -- why do you carry
22 it with you? What use do you expect to make of it?

23 WITNESS PAWLOWSKI: I was interested in reading
24 the article because it had been brought to my attention and
25 within the framework of the question that had been asked, I

1 used that to quote from.

2 DR. JORDAN: All right.

3 WITNESS PAWLOWSKI: I felt it answered the
4 specific question that was being asked.

5 DR. JORDAN: I see. And you do believe then that
6 there is basis for the statement that Category 8 and 9
7 accidents will reach the populace quicker than the major
8 accidents like a Category 1 or 2?

9 WITNESS PAWLOWSKI: It depends upon the
10 circumstances involved. Okay.

11 DR. JORDAN: That is what I would exactly think.
12 And so, therefore, I guess I asked why do you believe this?
13 Well, for example, a steam explosion?

14 WITNESS PAWLOWSKI: It depends upon all -- it
15 depends upon all the consequences of the accident would be
16 dependent upon many factors interrelated. Okay. And the
17 time frame there referenced may not be appropriate for all
18 of the specific pieces -- all the specific pieces acting
19 together affecting the accident consequences.

20 DR. JORDAN: Well, if you are not relying on it, I
21 think there is no need to go into it further.

22 Thank you.

23 (Pause.)

24 BY MS. GAIL BRADFORD: (Resuming)

25 Q Mr. Pawlowski, do you have a portion of a copy of

1 an article from the Geographical Review, Volume 71, Number
2 1, January 1981, entitled "Evacuation from a Nuclear
3 Technological Disaster," written by Donald J. Ziegler,
4 Brunn, and Johnson?

5 A (WITNESS PAWLOWSKI) Yes, we do.

6 Q Turning your attention to page 7 of that article,
7 there is a description of the evacuation shadow phenomenon.
8 Do you understand that concept as used in that article?

9 A (WITNESS PAWLOWSKI) It should be stated that the
10 article was given to us during the previous recess. I have
11 not had the opportunity to reread the whole article and
12 place the specific reference paragraph within the context of
13 the frame of the total article. Okay.

14 However, rereading that specific paragraph, taken
15 out of context of the article, I am familiar with what is in
16 the paragraph, correct.

17 Q I call your attention -- well, it says in this
18 that, "Instead of an estimated 144,000 persons" -- oh, I am
19 reading from the wrong section. "If only the persons
20 advised to evacuate had left the area, the number of
21 evacuees would have been limited to approximately 2500
22 preschool children and pregnant women instead of an
23 estimated 144,000 persons or 39 percent of the population
24 evacuated."

25 And it goes on to say that, "The impact of

1 evacuation shadow should be considered in planning for
2 nuclear accidents and that it is more important than in
3 planning for natural hazards."

4 Would you agree with that statement or disagree
5 with that statement?

6 MR. ZAHLER: Just so the record is clear, you are
7 asking him to disagree or agree about that last statement
8 about the shadow and not with respect to the actual numbers
9 of evacuation?

10 MS. GAIL BRADFORD: Yes. Yes. Whether or not the
11 concept of evacuation shadow should be considered for -- by
12 FEMA in FEMA review of nuclear planning, time estimates,
13 yes, also.

14 WITNESS ADLER: The words in NUREG-0654 which bear
15 most directly on your question are in Planning Standard D,
16 not the evacuation shadow, but the material which might help
17 answer the question.

18 WITNESS BATH: The reference that he is discussing
19 is on page 12 of NUREG-0654.

20 WITNESS PAWLOWSKI: First of all, the question was
21 addressed to me. Do I have a specific opinion as to whether
22 that needs to be factored in? At this point, I have no
23 specific opinion, because of the fact that I would have to
24 review other pieces of literature upon which to have an
25 adequate base to develop a scientific opinion as to whether

1 or not the content as reflected or the premise reflected in
2 that particular paragraph is valid.

3 MR. CUNNINGHAM: Mr. Chairman, does the Board have
4 any objection to my following up on this point right now
5 with Ms. Bradford?

6 CHAIRMAN SMITH: No.

7 BY MR. CUNNINGHAM:

8 Q Mr. Pawlowski, you had indicated earlier in your
9 testimony that you had experience with a chlorine gas-type
10 accident.

11 A (WITNESS PAWLOWSKI) Yes.

12 Q Within this article, this particular paragraph, I
13 believe it is in the middle, right after footnote 13:

14 "Although the evacuation shadow phenomenon may be
15 a minor consideration in evacuation planning for natural
16 hazards, the impact of the phenomenon needs to be emphasized
17 in planning for future nuclear accidents precisely because
18 delineation of the geographical scope of an invisible
19 danger, such as ionizing radiation, is difficult for public
20 officials and private citizens to determine in planning for
21 an evacuation from a nuclear disaster.

22 "It can, therefore, be projected that any order to
23 evacuate will cause the departure of residents not only from
24 a designated zone but also from its peripheries. The
25 planning process should accommodate responses from the two

1 areas."

2 And my question is: Does FEMA at this point have
3 any sensitivity to that concept?

4 A (WITNESS PAWLOWSKI) I think I would like to quote
5 specifically from NUREG-0654, which provides the planning
6 basis upon which the guidelines and the criteria for
7 evaluation of emergency plans to handle emergencies is
8 developed.

9 And it states under the planning basis -- I would
10 like to quote from page 12 of 0654 that, "Detailed" -- under
11 the -- it talks about emergency planning zones and then D
12 planning bases. "D. Detailed planning within ten miles
13 would provide a substantial base for expansion of response
14 efforts in the event that this proves necessary,
15 specifically, beyond the ten-mile EPZ."

16 If there is a requirement for expansion to
17 accommodate the shadow effect which you are referring to,
18 the planning which is established within the ten-mile EPZ
19 would be able to accommodate the requirement for support
20 resources as it becomes evident outside of the ten-mile
21 EPZ.

22 Q Okay. Let me make the question a little bit more
23 specific. I believe that the context we are trying to bring
24 this out is with regard to your review of the time
25 estimation studies for evacuation. Is it your opinion that

1 that standard criterion in NURFG-0654 will be applied to
2 that review of that estimate -- of the study done by
3 Parsons, Brinckerhoff, or will sensitivity be given to the
4 concepts that are emphasized in this particular article?

5 A (WITNESS ADLER) Both.

6 Q Well, the reason I ask is because Mr. Pawlowski, I
7 think, in a direct answer to Mr. Smith indicated that his
8 chlorine experience was that people will evacuate as ordered
9 -- I thought that that was the gist -- and that they will
10 respect people in authority and follow their direction.

11 A (WITNESS PAWLOWSKI) That is correct.

12 Q And our concern is does this -- the emphasis of
13 this article -- does that in any way change --

14 A (WITNESS PAWLOWSKI) One of the most important
15 things we have to remember is the fact that people respond
16 on the basis of being, number one, informed of emergency
17 plans in advance of disasters, have adequate and sufficient
18 detailed guidance from public officials as to what is their
19 role in effectuating the emergency plan to mitigate the
20 disaster or emergency as it is occurring.

21 When you have this combination of public
22 information and education, guidance from officials,
23 collectively, high-visibility public information program,
24 these elements molded together can provide the expected
25 response from the public.

1 Specifically, referring to the chlorine barge
2 instance, this was a specific incident which escalated over
3 several periods of days. During that period of time there
4 was specific guidance, information, and direction given to
5 the public in advance; and plans were executed accordingly.

6 MR. CUNNINGHAM: Okay. Thank you.

7 MS. GAIL BRADFORD: I have got -- the other
8 comment on this page -- well, near the top: "Everyone
9 within a ten-mile radius was advised to remain indoors, an
10 action known as sheltering." And then if we combine that
11 with the information that 39 percent of the people within 15
12 miles left, one can see that the number of people advised to
13 take shelter evacuated instead. A substantial number of
14 people advised to take shelter evacuated instead.

15 BY MS. GAIL BRADFORD: (Resuming)

16 Q A substantial number of people advised to take
17 shelter evacuated instead. And I am wondering whether FEMA
18 has considered the experience, that particular aspect of the
19 experience, of the evacuation in this area?

20 A (WITNESS PAWLOWSKI) Well, perhaps I can --

21 A (WITNESS ADLER) May I answer? Because I do not
22 believe that Mr. Pawlowski has been here throughout all of
23 the testimony that has been presented. And some very
24 valuable insights, I think, have been given, and we endorse
25 them.

1 These were provided in the testimony by the Bureau
2 of Radiation Protection; specifically, Maggie Wylie, who, I
3 think, addressed in her remarks just exactly what you are --

4 Q She does not work for FEMA.

5 A (WITNESS ADLER) We -- yes, you are right. I
6 said, if you would care to reread what I stated, that FEMA
7 does endorse the position that the Bureau of Radiation
8 Protection has provided in this hearing.

9 A (WITNESS PAWLOWSKI) Could you repeat your
10 question?

11 Q The question relates to whether FEMA will evaluate
12 the experience of this area, which I notice is that people
13 were advised to shelter and they evacuated instead, in
14 considering whether or not sheltering is an effective
15 protective action?

16 A (WITNESS PAWLOWSKI) One of the things I would
17 like to bring in perspective is that FEMA -- in the report
18 to the President which FEMA put together, FEMA recognized
19 that one of the findings was the fact that there was an
20 inadequate public information program to provide
21 instructions to the public concerning what radiation is and
22 what their expected reaction would be if provided specific
23 information and guidance from public officials as to what to
24 do when an emergency arises.

25 With an enhanced and amplified public information

1 program and directions on emergency planning, the public
2 will be expected to respond. That is not FEMA's position.
3 That is my position as reflected from what was stated in the
4 report to the President.

5 CHAIRMAN SMITH: But she is entitled to have an
6 answer to her question, however.

7 MR. ZAHLER: Mr. Chairman.

8 CHAIRMAN SMITH: You are entitled to the
9 explanation, yes, but she is entitled to an answer also.

10 WITNESS PAWLOWSKI: Okay. And the --

11 CHAIRMAN SMITH: Ask the question again. Would
12 you do it quickly? You have the question right before you.
13 Just ask it.

14 MS. GAIL BRADFORD: I don't.

15 BY MS. GAIL BRADFORD: (Resuming)

16 Q The question is whether FEMA will evaluate the
17 experience of the accident in this area, which I define as
18 that numerous people who were advised to take shelter,
19 evacuated instead, whether they will evaluate that
20 particular experience and see whether or not that affects
21 the effectiveness of sheltering as a protective action.

22 MR. COSGROVE: Mr. Chairman, I think I can help
23 with this.

24 CHAIRMAN SMITH: No. I want an answer "Yes" or
25 "No" from this panel. Now, she has asked it three times.

1 Now, you can answer it "Yes" or "No."

2 WITNESS BATH: The answer, I feel, is --

3 CHAIRMAN SMITH: "Yes" or "No." If you cannot
4 answer it "Yes" or "No," say so.

5 WITNESS ADLER: Yes. NUREG-0654 deals with that.

6 CHAIRMAN SMITH: Now explain.

7 BY MS. GAIL BRADFORD: (Resuming)

8 Q Do you mean that section that Mr. Pawlowski read
9 from page 12?

10 A (WITNESS ADLER) No. Appendix 4, the evacuation
11 time estimates.

12 Q Relates in no way to my question.

13 CHAIRMAN SMITH: Now, you can explain how it
14 relates to the question.

15 WITNESS ADLER: It addresses in Appendix 4
16 sectoral evacuations where one could conceive of sheltering
17 followed by evacuation -- I mean a number of approaches.

18 I am sorry, Mr. Chairman.

19 CHAIRMAN SMITH: Does it take into account that
20 when sheltering is advised, some people will not shelter,
21 they will evacuate instead?

22 WITNESS ADLER: I do not know. Let me ask my
23 colleagues if they know.

24 (Panel of witnesses conferring.)

25 CHAIRMAN SMITH: We will hear from Mr. Cosgrove.

1 The trouble it is taking -- the eagerness of the panel to
2 inform is commendable, but the Intervenor also has a right
3 to construct a case, and this is what we are having
4 difficulty with. I mean we are not criticizing the panel
5 for trying to give full, complete explanations.

6 WITNESS ADLER: Mr. Chairman, I appreciate your
7 patience.

8 None of the planning guides presume 100 percent
9 response by the population. There is inherent in all the
10 emergency planning guidance a recognition that the
11 population, some portion of the population, will not respond
12 as directed.

13 CHAIRMAN SMITH: Has that been quantified?

14 WITNESS ADLER: Not to my knowledge. I do not
15 know.

16 CHAIRMAN SMITH: All right. How much follow-on do
17 you have, Ms. Straube?

18 MS. STRAUBE: None.

19 CHAIRMAN SMITH: How much redirect do you have,
20 gentlemen?

21 MR. GRAY: There will be none, sir.

22 CHAIRMAN SMITH: None. Okay.

23 Will you have recross?

24 MR. ZAHLER: No.

25 CHAIRMAN SMITH: Okay.

1 Proceed.

2 BY MS. GAIL BRADFORD: (Resuming)

3 Q I am not sure whether you understand my question.
4 This information from the Geographical Review and the
5 Mountain West study and the Rutgers study and other studies
6 all indicate to me that substantial numbers of people within
7 the ten-mile radius who were advised to take shelter did
8 not. And I would say that it is over 50 percent of the
9 people who were advised to take shelter, evacuated.

10 A (WITNESS BATH) I would like to try to say
11 something, and I am sorry --

12 CHAIRMAN SMITH: You have answered the question.
13 Now you can explain, because she has given you an
14 argumentative question and you can give an argumentative
15 reply.

16 WITNESS BATH: Okay.

17 CHAIRMAN SMITH: However, did you finish -- let
18 her finish her sentence.

19 BY MS. GAIL BRADFORD: (Resuming)

20 Q My question is whether FEMA is taking that
21 experience into account in evaluating sheltering, the
22 effectiveness of sheltering as a protective action?

23 CHAIRMAN SMITH: Now, I think that answer can be
24 answered "Yes" or "No." Then you can explain.

WITNESS BATH: I would say "Yes."

1 CHAIRMAN SMITH: When you say "that experience,"
2 what experience are you referring to? The one referred to
3 in the paragraph?

4 MS. GAIL BRADFORD: The experience of the
5 accident, sir, as I characterized it, which is that numerous
6 people advised to shelter evacuated.

7 CHAIRMAN SMITH: All right.

8 WITNESS BATH: I will say "Yes," in order to be
9 able to follow on to say that the preamble, the important
10 part of 0654 specifically states that NUREG-0654 is based
11 upon the experiences known to the steering committee which
12 developed it about TMI.

13 The problem is we are not the steering committee,
14 so we really do not know how much certain things have been
15 factored in or not factored in. And that has been, I think,
16 our problem as it has been discussed here, that we are
17 attempting to address that, and we do not -- we are not the
18 best witness to provide that.

19 BY MS. GAIL BRADFORD: (Resuming)

20 Q Is that the extent --

21 CHAIRMAN SMITH: You have seen this thread
22 throughout the entire testimony.

23 MS. GAIL BRADFORD: Yes.

24 CHAIRMAN SMITH: These gentlemen are comparing the
25 plans with NUREG-0654 and that they are -- they have been

1 helpful when possible to explain the bases, the planning,
2 the bases behind NUREG-0654, but he just explained right now
3 what their limitation is. And you just may have to accept
4 that. You have no choice, at least with this panel.

5 BY MS. GAIL BRADFORD: (Resuming)

6 Q And that is the extent to which you are taking
7 that into account; just as it is reflected in NUREG-0654?

8 A (WITNESS BATH) Yes.

9 A (WITNESS PAWLOWSKI) Yes.

10 Q I have a question relating to hospitals. Is it
11 your testimony that York Hospital and York Memorial
12 Osteopathic Hospital are capable of treating radiation
13 injuries?

14 A (WITNESS BATH) It is our testimony that the State
15 Department of Health has listed those as medical facilities
16 capable of treating.

17 Q Do you mean by "treating," as it was in your
18 testimony, taking blood and urine and feces samples?

19 A (WITNESS ADLER) We corrected that word yesterday,
20 I think, under cross examination from the State. So we are
21 really talking about the group of people who, after the
22 diagnostics, are examined, are evaluated by any one of the
23 hospitals. Those people whose diagnostics reflect a need
24 will be channeled to those three hospitals. Those who do
25 not in the diagnostic data reflect that need will be sent

1 home.

2 Q So you are saying that York Hospital and York
3 Memorial Osteopathic are capable of diagnosing but not
4 capable of treating radiation injuries?

5 A (WITNESS ADLER) Any of the hospitals on the list
6 are capable of doing the diagnostics, to my knowledge. We
7 are just talking about -- as stated in our direct testimony,
8 you can see they are rather simple tests.

9 Q This is going to be a terrible piece of record.
10 You did not answer my question.

11 CHAIRMAN SMITH: Was that a question? I did not
12 hear it.

13 BY MS. GAIL BRADFORD: (Resuming)

14 Q Whether or not York Hospital and York Memorial
15 Osteopathic, which are not listed by the State as being able
16 to treat radiation injuries --

17 MR. ZAHLER: That is just not correct. Appendix R
18 lists both of those hospitals as Pennsylvania hospitals
19 capable of radiation treatment.

20 BY MS. GAIL BRADFORD: (Resuming)

21 Q What three hospitals were you referring to when
22 you said that three hospitals could treat radiation
23 injuries?

24 A (WITNESS ADLER) By name I would have to look them
25 up. But they are those, I think, which are asterisked on

1 that list and, you know, pointed out as having the
2 capability beyond that of the diagnostics, to be inclusive
3 of the treatments. We can look it up, if you would like.

4 Q Thank you. I would like.

5 MR. ZAHLER: I would like Mr. Adler to look it up,
6 because that answer is not correct.

7 WITNESS BATH: I am sorry. Somehow in this
8 trading off, we get some stuff that needs to be cleared up a
9 little here. I believe there are two hospitals with
10 asterisks in York County, and if that is the point that you
11 are making and that we said there were three, we were in
12 error.

13 BY MS. GAIL BRADFORD: (Resuming)

14 Q Are there three hospitals in the TMI area that are
15 asterisked?

16 A (WITNESS BATH) Let me get you the list, please.

17 CHAIRMAN SMITH: Ms. Bradford, why don't you
18 explain what your concern is? What are you trying to get
19 at? Maybe that would be helpful, if we know.

20 (Pause.)

21 MS. GAIL BRADFORD: I think it is my memory that
22 the York Hospital and York Memorial Osteopathic Hospital are
23 only able to diagnose and not to treat. And there has been
24 some confusion between those two lists of hospitals. We
25 have had testimony that any hospital can diagnose, but only

1 certain hospitals can treat.

2 We have also had testimony that York Hospital and
3 Memorial Osteopathic Hospital can treat.

4 WITNESS BATH: The list provided by the State
5 Department of Health says that hospitals on this list are
6 capable of treating -- of radiation treatment. It does not
7 specify on this list the level of treatment. I would say
8 that this list is sufficient for the determination of an
9 ambulance driver taking a person for the diagnostic care.

10 Once among the medical community, it is determined
11 by doctors as to what follow-on treatment is required and
12 where persons might have to go for further treatment or
13 whether further treatment is not necessary.

14 Can that be helpful?

15 MS. GAIL BRADFORD: That is all.

16 (Board conferring.)

17 BOARD EXAMINATION

18 BY DR. JORDAN:

19 Q In the test exercises that will be conducted, will
20 there be a way of evaluating the adequacy of the state plan
21 for determining in a given accident whether to recommend
22 evacuation and the area of evacuation or to recommend
23 sheltering?

24 A (WITNESS ADLER) Yes.

25 Q Now, how do you -- how do you go about deciding

1 whether the Pennsylvania BRF has the competence or the
2 procedures are adequate for making such a determination?

3 A (WITNESS ADLER) For making such recommendations?

4 Q Yes, recommendations.

5 A (WITNESS ADLER) One moment.

6 (Panel of witnesses conferring.)

7 A (WITNESS ADLER) Through the observations of the
8 trained federal observer who was from the Environmental
9 Protection Agency.

10 Q From the EPA?

11 A (WITNESS ADLER) Yes. I cannot name -- I mean
12 there are a number -- there was, in the last exercise, we
13 had that history. Dr. Langford was there.

14 Q I see. I see.

15 MR. GRAY: Dr. Jordan, I possibly might be able to
16 help with a question or two on this.

17 DR. JORDAN: Thank you.

18 REDIRECT EXAMINATION

19 BY MR. GRAY:

20 Q Isn't it true that there will be a scenario worked
21 out prior to the exercise?

22 A (WITNESS ADLER) There will be.

23 Q Won't that scenario be designed in such a way that
24 there will be for the persons planning the exercise, a range
25 of correct protective actions that should be selected?

1 A (WITNESS ADLER) Definitely.

2 Q And it is, in essence, a test to see if in fact
3 those proper corrective actions are selected?

4 A (WITNESS ADLER) Yes.

5 BOARD EXAMINATION--Resumed

6 BY DR. JORDAN:

7 Q Would this include a general emergency?

8 A (WITNESS ADLER) Yes.

9 Q And it would include then a particular scenario in
10 a general emergency, such as a core uncover followed by,
11 say, steam explosion or something like that? I guess I do
12 not know what you mean by a "scenario."

13 A (WITNESS ADLER) I would like it too. But until
14 we have had our meeting with the state and discuss how --
15 the involvement of the Licensee as well, it is difficult to
16 make that commitment.

17 DR. JORDAN: All right. Thank you.

18 CHAIRMAN SMITH: Anything further?

19 (No response.)

20 CHAIRMAN SMITH: All right, gentlemen, you may
21 step down.

22 (Witnesses excused.)

23 CHAIRMAN SMITH: Now, is there anything further?

24 We have no more discussion about the beginning session
25 Tuesday?

1 MR. ZAHLER: We are going to start with Dr.
2 Levenson first thing Tuesday morning.

3 CHAIRMAN SMITH: Okay.

4 MR. ZAHLER: At 10:00 o'clock.

5 CHAIRMAN SMITH: All right. If there is nothing
6 further, we will adjourn until --

7 MS. GAIL BRADFORD: What else is up next week? I
8 would just like to get the schedule clear, because I need to
9 prepare.

10 CHAIRMAN SMITH: The best thing we have going is
11 your schedule, Ms. Bradford.

12 MS. GAIL BRADFORD: It is my understanding that we
13 will have Mr. Levenson first and then the Bath-Chesnut
14 testimony.

15 MR. GRAY: Correct.

16 MS. GAIL BRADFORD: And then we are going to Dr.
17 Molholt and Dr. Tokahata on Wednesday?

18 MR. ZAHLER: Yes.

19 DR. LITTLE: When is Mr. Peterson coming?

20 MR. GRAY: Following Dr. Molholt or Tokahata,
21 whichever is convenient. That would be anticipating the
22 22nd, Wednesday.

23 MS. GAIL BRADFORD: Do we know whether -- are you
24 confirming that Mr. Peterson will be here on a day when Dr.
25 Johnsrud would be here?

1 MR. GRAY: Say again, please?

2 MS. GAIL BRADFORD: Are you confirming that you
3 are planning to have Mr. Peterson appear on a day when Dr.
4 Johnsrud is here?

5 MR. GRAY: Isn't here?

6 MS. GAIL BRADFORD: Is here.

7 MR. GRAY: We are trying to have Doctor -- Mr.
8 Peterson appear after Dr. Molholt and Mr. Tokahata. I do
9 not know when Dr. Johnsrud is going to be here.

10 CHAIRMAN SMITH: I think Dr. Johnsrud better plan,
11 if she wishes to have schedules coincide with her presence,
12 she had better plan to be here all the rest of the hearing.

13 MS. GAIL BRADFORD: Yes. I just --

14 CHAIRMAN SMITH: We cannot adjust it any finer
15 than it is being adjusted. I would tell her that we will
16 make no accommodations based upon her presence or absence
17 for the balance of the hearing.

18 MS. GAIL BRADFORD: Right. I just wished to
19 advise the Board that I will have no questions whatsoever of
20 Mr. Peterson unless Dr. Johnsrud has. Maybe no one will
21 question him.

22 CHAIRMAN SMITH: Okay. Now, there is a
23 possibility that there will be no need to present a witness
24 for the third supplement to the SER, and we will not know
25 that, of course, until it is served on UCS and we have it.

1 But that was suggested for the following week, I mean the
2 week after next week.

3 Does the schedule as it is now anticipate that we
4 return on the 28th?

5 MR. ZAHLER: Mr. Chairman, I think that is
6 somewhat up in the air. It depends on design issues. We
7 will finish the emergency planning issues, what you have
8 there.

9 By the way, there is one change to the schedule.
10 That is that the county directors and Mr. Belser are likely
11 to be deferred. There are going to be new county plans that
12 will be distributed on Tuesday. And from what I understand
13 from the State, for that panel to be ready and for Ms.
14 Bradford to prepare for it, the time will be insufficient.

15 My preference would be to run through what you
16 have on the schedule there, short of that last panel; and
17 then pick up with the design issues, and that would be the
18 SER and whatever else is left; and then come --

19 CHAIRMAN SMITH: What else is left?

20 MR. ZAHLER: Mr. Trowbridge will tell you.

21 MS. GAIL BRADFORD: Could I address something
22 about what Mr. Zahler just said before we get to the list?

23 CHAIRMAN SMITH: I did not hear what you said.

24 MS. GAIL BRADFORD: Could I address something
25 about what Mr. Zahler just said before we get to the list

1 for Mr. Trowbridge?

2 CHAIRMAN SMITH: All right.

3 MS. GAIL BRADFORD: What Mr. Zahler is asking is
4 that we have the League of Women Voters appear before I have
5 had a chance or they have had a chance to study the new York
6 County evacuation plan, which is substantially differen.
7 And I am not really prepared to do that. I think they would
8 like to study it, and I would like to have the League appear
9 at the same time as the York and Dauphin County
10 coordinators.

11 MR. ZAHLER: You misunderstood me. That whole
12 block that is listed on the 28th -- the county commissioners
13 and the League will appear together whenever we schedule
14 them.

15 CHAIRMAN SMITH: Later.

16 MR. ZAHLER: Yes. But hopefully, before the week
17 of May 4.

18 MS. STRAUBE: Not too much later.

19 CHAIRMAN SMITH: It cannot be very much later
20 then. Okay, you do not anticipate that we will have a
21 hearing on the 28th here?

22 MR. TROWBRIDGE: Mr. Chairman, it seems to me --
23 let me start with Licensee. Licensee has presently no
24 further testimony to -- unless some need for it is
25 generated.

1 CHAIRMAN SMITH: That was our understanding.

2 MR. TROWBRIDGE: Our understanding -- the staff,
3 we have a Staff Supplement 3 which will address a number of
4 design items and a couple of management items, presumably,
5 hopefully, closing out from the staff's standpoint all of
6 the open items. That is still a hope.

7 I am somewhat uncertain, and I think perhaps the
8 staff is as well. I am sorry Mr. Tourtellotte is not here.
9 It is my understanding that the staff has contemplated --
10 been contemplating -- been contemplating bringing Mr.
11 Rosztoczy to talk further about environmental qualification
12 of equipment, UCS 12, the questions adopted by the Board.

13 CHAIRMAN SMITH: At the Board's --

14 MR. TROWBRIDGE: Do you want to wait to see if Jim
15 is still here?

16 MS. GAIL BRADFORD: What was the witness that the
17 staff might product?

18 MR. TROWBRIDGE: Rosztoczy -- as nearly as I can
19 manage it. This is an area where UCS has registered special
20 interest.

21 CHAIRMAN SMITH: All right.

22 (Pause.)

23 MR. TROWBRIDGE: It appears that Mr. Tourtellotte
24 is not locatable.

25 MR. GRAY: That is correct.

1 MR. TROWBRIDGE: Maybe we better return to this
2 Tuesday morning.

3 CHAIRMAN SMITH: I am sorry, I did not hear you.

4 MR. TROWBRIDGE: I think we had better return to
5 this Tuesday morning, since Mr. Tourtellotte is not here.

6 CHAIRMAN SMITH: Okay. But it seems, as far as we
7 can tell, that we anticipate some hearings in the week of
8 the 27th, and it seems like that might be towards the end of
9 that week.

10 MR. TROWBRIDGE: That sounds right to me. I think
11 one of the questions is what, if any, interest is Supplement
12 3 going to generate in the Board or the parties.

13 CHAIRMAN SMITH: That is right. And we think that
14 there is -- there is a substantial possibility that the
15 Board will not require a witness on it. That is why we
16 urged Mr. Tourtellotte to get, if he has a draft of it, get
17 it to UCS early so that that could be determined.

18 But we cannot identify any reason, from memory at
19 least, why we would require a witness on the SER supplement.

20 All right. Well, I think that is good enough. We
21 will adjourn then, if there is nothing further, till 10:00
22 a.m. Tuesday.

23 (Whereupon, at 11:55 a.m., the hearing was
24 adjourned, to reconvene at 10:00 a.m. Tuesday, April 21,
25 1981.)

