

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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4 In the matter of: :
5 METROPOLITAN EDISON COMPANY :
6 (Three Mile Island Unit 1) :
7 - - - - - :

Docket No. 50-289
(Restart)

25 North Court Street,
Harrisburg, Pennsylvania

Wednesday, April 15, 1981

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

13 BEFORE:

14 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

20 LAWRENCE BRENNER, Esq.
 Legal Advisor to the Board

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1 APPEARANCES:

2 On behalf of the Licensee, Metropolitan Edison
3 Company:

4 GEORGE F. TROWBRIDGE, Esq.
5 ROBERT ZAHLER, Esq.
6 Shaw, Pittman, Potts and Trowbridge,
7 1800 M Street, N.W.,
8 Washington, D. C.

9 On behalf of the Commonwealth of Pennsylvania:

10 MICHELE STRAUBE, Esq.
11 Assistant Attorney General,
12 505 Executive House,
13 Harrisburg, Pennsylvania

14 On behalf of Newberry Township TMI Steering
15 Committee:

16 JORDAN E. CUNNINGHAM, Esq.
17 Fox, Farr and Cunningham
18 2320 North Second Street
19 Harrisburg, Pennsylvania

20 On behalf of Anti-Nuclear Group
21 Representing York:

22 GAIL BRADFORD

23 On behalf of Three Mile Island Alert:

24 LOUISE BRADFORD

25 On behalf of the Regulatory Staff:

JAMES TOURTELLOTTE, Esq.
20 JOSEPH GRAY, Esq.
21 Office of Executive Legal Director,
22 United States Nuclear Regulatory Commission,
23 Washington, D. C.
24 DANIEL P. COSGROVE, Esq.
25 Assistant General Counsel for FIRE
Federal Emergency Management Agency
Washington, D.C. 20472

C O N T E N T S

WITNESSES: VOIR DIRE REDIRECT ON VOIR DIRE

Michael S. Pawlowski,
 Frederick J. Bath and
 Vernon E. Adler (Resumed)

By Ms. Gail Bradford

18,931

By Mr. Cosgrove

18,964

WITNESSES: DIRECT CROSS REDIRECT RECROSS BOARD CROSS ON BOARD

Michael S. Pawlowski,
 Frederick J. Bath and
 Vernon E. Adler (Resumed)

By Mr. Gray

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By Ms. Gail Bradford

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Michael S. Pawlowski,
 Frederick J. Bath and
 Vernon E. Adler (Resumed)

By Ms. Gail Bradford

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By Mr. Cunningham

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P R O C E E D I N G S

(9:05 a.m.)

CHAIRMAN SMITH: All right. Let's proceed, ladies and gentlemen.

Mr. Tourtellotte, we have received Mr. Cutchin's letter of April 9, 1981, forwarding Mr. Basdekas' memorandum to you of April 7, 1981. And there is still an area that we feel is not fully addressed. Mr. Basdekas states that he cannot answer your question as to whether there are any facts that have not been brought to the attention of the Board, because -- among other reasons is that he is not familiar with all the testimony given to the Board by the staff and others.

We had hoped that he would read particular portions of the testimony. Certainly we did not expect him to read all the transcript and the exhibits. So somewhere along the line we are not getting our thoughts through to Mr. Basdekas.

And we would like to discuss perhaps a fail-safe way in which that could be done, perhaps sending him a memorandum ourselves, bringing him down here, telling him what we wanted to do or something else. But we thought you might have some helpful suggestions on it.

MR. TOURTELLOTTE: Well, we -- I do not know where to go from here. When we talked with him, we tried to point

1 to certain important parts of the transcript. We did not
2 simply suggest that he read 15,000 pages. And he did not,
3 apparently, want to do that, or he did not do it. I do not
4 understand exactly.

5 But I do not know what else to do.

6 CHAIRMAN SMITH: Okay. I suppose that was -- I
7 should have asked directly if you had pointed out the
8 pertinent parts of the testimony to him.

9 MR. TOURTELLOTTE: Yes.

10 CHAIRMAN SMITH: All right. Then I just cannot
11 understand his answer. I just do not believe he is
12 approaching us with full candor on the subject, if you have
13 given him the parts of the testimony where the subject
14 matter has been addressed and he comes back with this
15 response.

16 And I might ask that you might communicate that to
17 him, that we do question whether he is being fully open with
18 us, that he does not understand what we want.

19 MR. TOURTELLOTTE: I think maybe the real turning
20 point, though, is the answer to the first question I think
21 really answers the other questions. And that is, he really
22 has nothing to offer to the Board that he has not already
23 offered to the Commission directly or to Congress. And
24 although he is --

25 CHAIRMAN SMITH: I suspect that that is true.

1 MR. TOURTELLOTTE: Although he has a generic
2 concern for his -- the application of what he has said to
3 Congress and to the Commission, he has made no direct
4 application of that to Three Mile Island. And, not having
5 made any direct application, I do not really know that he
6 would possibly have anything to say that would be of a
7 specific enough nature to do any good in this proceeding.

8 CHAIRMAN SMITH: Well, we suspect that that is
9 probably the case, but I do not understand why he simply
10 cannot say that. I mean, the time that we have spent, the
11 wasted efforts on your part to try to communicate this idea
12 to him. It is not a complicated idea at all. It is quite
13 simple.

14 MR. TOURTELLOTTE: You know, in a sense we are
15 trying to mind read him here, and I can understand why he
16 might say that in those words. He feels very strongly about
17 the generic views that he has, and I think he would be
18 reluctant to say precisely what I said a few moments ago.
19 And I do not know that it is out of a lack of candor as much
20 as it is he simply has strong feelings in this area. And he
21 may not -- he may not want to actually come out and say, I
22 really have nothing specific to give you in this case, and
23 instead simply talk around that point.

24 CHAIRMAN SMITH: It is difficult for us to
25 understand the scientific approach to a scientific problem

1 with that type of logic. We will have to consider it some
2 more.

3 But you did point out to him the particular
4 testimony that we had discussed?

5 MR. TOURTELLOTTE: Yes. My understanding is he
6 has read -- he must have read some of it, because as I
7 recall he referred to Denny Ross' testimony. So he must
8 have read -- must have read some of that.

9 We tried to point out to him where that testimony
10 was and suggested that he read it, and he apparently has
11 read some of it. Whether he has read all of it or not, I do
12 not know.

13 (Board conferring.)

14 CHAIRMAN SMITH: We will come back to it. We will
15 come back to it later.

16 MR. TOURTELLOTTE: The other thing, I understand
17 that the Board was wondering if we could have an early
18 answer date on the Sholly motion.

19 CHAIRMAN SMITH: Right.

20 MR. TOURTELLOTTE: Is that -- that is due, as I
21 understand it, on the 29th, ordinarily?

22 CHAIRMAN SMITH: Well, we --

23 MR. TOURTELLOTTE: And you asked it be moved up to
24 the 21st?

25 CHAIRMAN SMITH: We suggested the 21st. But we

1 invited recommendations for an early response.

2 (Counsel for Staff conferring.)

3 MR. TOURTELLOTTE: We can do it by the 22nd, I
4 think. We will try.

5 CHAIRMAN SMITH: All right.

6 I think earlier in the hearing we had indicated
7 the five extra days that the staff has in response to
8 motions should not be used unless necessary. I think we
9 have come to the time in the hearing where it should not be
10 used at all unless there is a specific request for it, a
11 showing of need for the rest of the hearing.

12 MR. TOURTELLOTTE: We actually just got this
13 yesterday ourselves in the mail. So I think if we could
14 have until Wednesday we can handle it.

15 CHAIRMAN SMITH: Mr. Trowbridge?

16 MR. TROWBRIDGE: We will file the 22nd also.

17 CHAIRMAN SMITH: Okay.

18 MS. STRAUBE: I have talked to Mr. Adler. He
19 wanted me to say that the Commonwealth did not get a copy
20 until yesterday, either. But is Wednesday the date, then,
21 the 22nd, for written responses?

22 CHAIRMAN SMITH: That is satisfactory to the
23 Board.

24 MS. STRAUBE: That would be fine.

25 CHAIRMAN SMITH: We want to come back to the

1 Basdekas matter after we have had a chance to confer and
2 identify particularly the transcript pages and the written
3 testimony which would be the subject of his comments, which
4 none of us have before us right now. So if you could come
5 back after the noon --

6 MR. TOURTELLOTTE: It might be -- the one thing
7 that we might do is make a specific list of that testimony
8 and ask him to read that testimony.

9 CHAIRMAN SMITH: That is what we thought.

10 MR. TOURTELLOTTE: We did not make a specific
11 list. What we did generally is tell him what the testimony
12 was and where it was and ask him to read it. And we
13 understood that is what you wanted him to do.

14 CHAIRMAN SMITH: Yes, that's what we wanted him to
15 do.

16 MR. TOURTELLOTTE: Whether he did or did not I do
17 not know.

18 CHAIRMAN SMITH: I want to resolve it. I think it
19 should be resolved now. I mean, I think we should find out
20 if the man has anything to tell us that has not been
21 covered. And I think it is a simple enough statement for
22 him to make, with a reasonable amount of effort. But his
23 efforts so far have been diverting the Board from -- I mean,
24 have not been productive at all.

25 I know he intends to be helpful, but he is not

1 helpful. He has been counterproductive in not being
2 specific about what his concerns are about this hearing.
3 And we just cannot afford any more time on him. We are
4 going to have to have a specific answer from him, if it
5 means bringing him up here or something else.

6 He is going to have to be specific. If he is not
7 capable, does not have the capability of being more
8 specific, then I do not see how he could make a contribution
9 to the record.

10 But in any event, we are going to recommend for
11 his attention the transcript of this discussion this
12 morning.

13 MR. TOURTELLOTTE: I might suggest, if we can make
14 a list and along with any other specific suggestions that
15 the Board has, we can telecopy that list of the transcript
16 along with specific directions from the Board as to what he
17 should do with the list and specifically how he should
18 address the issues.

19 Then I think we can get maybe a more meaningful
20 answer out of him. And even if the answer ultimately is not
21 a direct answer, then that is a meaningful answer.

22 CHAIRMAN SMITH: That is fine. That would resolve
23 it. Could we come back to it in the afternoon, the
24 beginning of the afternoon session?

25 MR. TOURTELLOTTE: Yes.

1 CHAIRMAN SMITH: Okay.

2 We had pending from last night the official notice
3 of the Commission's papers on potassium iodide thyroid
4 blocking. We believe that the initial papers from the staff
5 to the Commission should be included in any official notice
6 that we take, to put these subsequent papers in context.

7 Now we want to hear from Ms. Bradford concerning
8 the objections she might have to officially noticing these
9 papers.

10 (Counsel for ANGRY conferring.)

11 MS. GAIL BRADFORD: Sir, I would like a little
12 more time to speak with Mr. Cunningham about it, if I
13 could.

14 CHAIRMAN SMITH: All right. We will take it up,
15 then, at your pleasure, some time today.

16 MS. GAIL BRADFORD: Thank you, yes.

17 MR. GRAY: Mr. Chairman, we are having a fresh,
18 easily read, complete copy of SECY 257 sent by express mail,
19 one that has no markings whatsoever or anything on it. We
20 will have that tomorrow.

21 CHAIRMAN SMITH: That is fine. Thank you.

22 Anything further?

23 (No response.)

24 MS. STRAUBE: I know that Mr. Corbin was scheduled
25 to be first today, but Mr. Cosgrove and Mr. Gray have asked

1 if he could come later so that the FEMA witnesses could
2 continue and not be held here longer. Mr. Corbin said he
3 would be available here later. I suggest we just go ahead
4 with the FEMA witnesses.

5 MS. GAIL BRADFORD: Did we want to talk about
6 other scheduling or delay that until later?

7 CHAIRMAN SMITH: Ms. Bradford had submitted to the
8 Board and apparently the parties a proposed scheduling for
9 what appears to be everything in the foreseeable future
10 which is ready to be heard. Is that what your intentions
11 were?

12 MS. GAIL BRADFORD: Well, I was just trying to
13 make a list of everything that needed to be heard and try to
14 put it someplace. I do not know that this is the best place
15 to put things.

16 CHAIRMAN SMITH: You mean to us? You mean --

17 MS. GAIL BRADFORD: Oh, no, I do not know that the
18 time slots that I have assigned are appropriate for the
19 witnesses.

20 CHAIRMAN SMITH: What you have done so far, as I
21 understand it, is passed it out to the affected parties for
22 their consideration. And we will follow our usual practice,
23 and that is enter it only as a matter of information and to
24 resolve disputes, which fortunately we have been able to
25 avoid. It has worked out quite well. So we will follow the

1 same practice.

2 We would like very much, if possible, to avoid
3 scheduling anything for the 28th, even if it means longer
4 sessions during the preceding week. The Board has a
5 commitment. All Board members, all panel members of the
6 Atomic Safety and Licensing Board, have a commitment for the
7 week of May 4, a training seminar. And we need -- some of
8 us need some time the prior week to prepare for it. And we
9 have other work.

10 So if we can complete the business before the 28th
11 it would be very helpful. Of course, if it is not possible,
12 it is not possible. This is the priority.

13 MS. GAIL BRADFORD: Sir, one thing I did not know
14 was whether there was anything other emergency planning left
15 to hear.

16 CHAIRMAN SMITH: Yes. Well, we will address that
17 as we -- we will address it when we have the latest
18 information, which will be when we come to the end of the
19 available testimony, and then we will make a decision based
20 upon the recommendation of the parties and our own judgment
21 as to what to do about any items that are open.

22 Okay. Anything further?

23 (No response.)

24 CHAIRMAN SMITH: There is no motion or anything
25 pending before us. All right.

1 CHAIRMAN SMITH: Mr. Gray -- oh, I guess we are ready
2 for Ms. Bradford.

3 MR. GRAY: I did want to add one additional
4 request to my request that the FEMA testimony of February 23
5 and March 16 be accepted, and that was also a request that
6 the professional qualifications of Mr. Pawlowski also be
7 admitted.

8 CHAIRMAN SMITH: Well, are there any objections to
9 receiving the professional background of Michael S.
10 Pawlowski?

11 (No response.)

12 CHAIRMAN SMITH: We will receive that first, and
13 then we will defer receiving the testimony, the two pieces
14 of testimony, until we hear the voir dire.

15 (The document referred to, the professional
16 qualifications statement of Michael S. Pawlowski, follows:)

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PROFESSIONAL BACKGROUND

NAME: Michel S. Pawlowski

PRESENT ASSIGNMENT: (1980 -) Physical Scientist Administrator, Federal Emergency Management Agency (FEMA), National Headquarters, Radiological Defense (RADEF) and Technological Hazards Branch

RESPONSIBILITIES: Administers the engineering, procurement, reliability assurance, storage, distribution, maintenance and calibration programs of the operational radiological defense system and radiological emergency response systems for peacetime incidents.

1. Has served as the Coordinator of Federal Interagency Review of State and Local Radiological Emergency Response Plans.

2. Serves as Federal observer and evaluator for Radiological Emergency Planning Exercises.

3. Provides technical support to the White House on Emergency Planning and training programs (1979 to present).

PAST ASSIGNMENT: (1976-1980) Health Physicist, FEMA Region III (formerly DCPA Region II) Olney, Maryland, composed of the following States: Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and the District of Columbia.

RESPONSIBILITIES: Technical authority for oversight and credibility on Regional Staff for matters of Health Physics. Has served in an advisory capacity to State Emergency Management Directors in Region III, on radiological and hazardous materials emergency planning. Represented DCPA on the NRC Regional Advisory Committee (RAC) which provided Federal Assistance in support of radiological emergency response planning by State and local governments with nuclear power reactors in operation. The RAC Committee assisted in the development and review of and commented on tests and exercises relative to these plans in accomplishing the objective of NRC concurrence in these plans.

PAST ASSIGNMENT: (1971-1976) Radiological Scientist Administrator, Indiana State Department of Civil Defense.

RESPONSIBILITY: Responsible for the coordination and development of Indiana's Peacetime Radiological Emergency Response Plan, Nuclear Blackmail Emergency Response Plan for Indiana, and the Indiana Radiological Response Plan in Support of Licensed Fixed Nuclear Facilities (Bailly Marble Hill). Member of the Indiana State Board of Health Indiana Area Radiation Emergency Response Committee. Administrator of the Radiological Systems Maintenance and Calibration Program. Organizer, coordinator, and moderator for the "First and Second Conferences on Nuclear Energy In Indiana".

PAST ASSIGNMENT: (1967-1971) Special Lecturer, Indiana University Faculty, Bloomington, Indiana.

RESPONSIBILITY: Statewide training of Radiological Monitoring Instructors and Radiological Defense Officers in support of the National and State Civil Defense Program. Conducted and participated in Statewide Civil Defense Management training and exercising programs, and coordinated conduct of Cooperative Business, Industry and Government Conferences on Local Emergency Planning.

EDUCATION: A.B. Indiana University, June, 1966

M.A.T. Indiana University, January, 1972

Extensive training on radiological emergency response planning and matters of health physics.

PROFESSIONAL ORGANIZATIONS: American Health Physics Society

American Nuclear Society

NATIONAL COMMITTEES: Presently a member of the Federal Radiological Preparedness Coordination Committee Task Force On Offsite Emergency Instrumentation.

Presently a member of the American National Standard Institute (ANSI) Committee N-692 which is developing an American National Standard on "Agency Responsibilities and Emergency Response Procedures for Highway Transportation Accidents Involving Radioactive Materials".

Past member DCPA RADEF Referent Group to Evaluate DCPA Radiological Defense Training for the 1980's.

COMMENDATIONS: For outstanding community leadership and cooperation in Indiana State and local government emergency programs by providing continuing support for aims and goals to survive and recover in the event of a disaster.

1 MS. GAIL BRADFORD: I would like to ask a question
2 of Mr. Gray, whether he intends to present any direct
3 testimony from Mr. Pawlowski?

4 MR. GRAY: Not direct written testimony. Mr.
5 Pawlowski is on the panel in order to assist in responding
6 to questions of a technical nature of a health physics
7 nature that may arise from the written testimony that has
8 been presented.

9 MS. GAIL BRADFORD: Sir, the first objection is to
10 Mr. Pawlowski, and we have another case in which the staff
11 has a witness without testimony. And we found -- well, it
12 was helpful to be able to interview Mr. Grimes. It was very
13 difficult from an adversary point of view to cross-examine a
14 witness without testimony and without having an opportunity
15 later to study up on what he said and go back to him.

16 CHAIRMAN SMITH: Is that --

17 MS. GAIL BRADFORD: I can see this coming up
18 again.

19 CHAIRMAN SMITH: You are not offering any direct
20 from Mr. Pawlowski, are you?

21 MR. GRAY: No. Mr. Pawlowski did assist these
22 witnesses, Mr. Adler and Mr. Bath, in the preparation of
23 their testimony. There were -- he was involved in
24 discussions of the plan reviews.

25 He did not himself write parts of that testimony,

1 but he was involved in its preparation.

2 CHAIRMAN SMITH: In any event, he is here solely
3 for the purpose of defending the testimony?

4 MR. GRAY: Yes.

5 CHAIRMAN SMITH: So your objection is not -- is
6 baseless. The only complaint that you might have is that
7 you have had inadequate opportunity for voir dire on Mr.
8 Pawlowski. But you have had the opportunity, consistent
9 with our rules and the rules of the hearing, to prepare for
10 the direct testimony that he will be defending.

11 MS. GAIL BRADFORD: I guess I am just concerned
12 that he might come up with some information or some kind of
13 technical information which is not contained in the direct
14 testimony which I would need a chance to prepare for in
15 order to cross-examine him further on.

16 CHAIRMAN SMITH: Is there any particular reason
17 why you pick him as the person who may come up with some
18 additional information, as opposed to Mr. Adler or Mr.
19 Bath?

20 MS. GAIL BRADFORD: Yes. Because it was my
21 understanding that Mr. Pawlowski did not directly prepare
22 the testimony from FEMA, and I would therefore conclude that
23 there might be information he did not include in it.

24 CHAIRMAN SMITH: You can make your objections in
25 the context of the information that is produced.

1 (Pause.)

2 Whereupon,

3 MICHAEL S. PAWLOWSKI

4 FREDERICK J. BATH

5 VERNON E. ADLER,

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

9 VOIR DIRE EXAMINATION

10 BY MS. GAIL BRADFORD:

11 Q Mr. Bath, can you tell us, what was the subject
12 matter covered in the NUREG-0654 FEMA REP conference in
13 February of '80?

14 A (WITNESS BATH) February of 1980 was the start of
15 the transition in the use of the interim NUREG-0654. There
16 were persons who were from NRC who are -- were now in FEMA
17 and with FEMA staff, and in order to ensure an equitable
18 application of 0654 nationwide they had a week-long
19 conference to discuss the different elements within 0654.

20 Q What stage of preparation was 0654 at?

21 A (WITNESS BATH) It was out for public comment, but
22 within the agency we were directed to utilize it.

23 Q You say you were not directed to use it?

24 A (WITNESS BATH) We were directed to use it.

25 Q Can you tell us how long this course lasted?

1 A (WITNESS BATH) It was a full week.

2 Q Who conducted it and what were the credentials of
3 the persons presenting the course?

4 A (WITNESS BATH) I could not quote the names of the
5 persons. I could probably get the agenda and the list of
6 people. They appeared to be highly qualified. They were
7 the persons who were identified in the NRC and the FEMA
8 staff best qualified to prepare and provide that
9 conference.

10 Q Do you remember any of them?

11 A (WITNESS BATH) Mr. Bob Ryan, who was the head of
12 the REP Division in FEMA, was involved; Mr. Shelly Schwartz
13 and numerous other persons, each within their own specialty
14 areas.

15 Q Can you tell us what books, regulations, or any
16 other support material was covered?

17 A (WITNESS BATH) Offhand, no. One such document
18 was like 0396, NUREG-0396, and other supportive documents
19 that were prelim to NUREG-0654.

20 Q Was there any material that, for example, gave
21 general background information or training on such subjects
22 as sheltering?

23 A (WITNESS BATH) You are speaking of -- no, I could
24 not recall specifically. I know the subject and the
25 application of that criterion was discussed. But what

1 particular references or documents that were used by the
2 presenter, I cannot remember offhand.

3 Q Was there information that would give you
4 knowledge to evaluate the usefulness of a particular kind of
5 shelter?

6 A (WITNESS BATH) I think more in general, the
7 application was to the usefulness of sheltering as a
8 protective action option, rather than a definitive
9 discussion of types of structures which may be available, if
10 that answers your question.

11 (Pause.)

12 Q What -- what general background information or
13 training did you receive in -- on traffic engineering, for
14 example, at that conference?

15 A (WITNESS BATH) At that conference? The traffic
16 engineering was not a subject of that. The application of
17 an evacuation time estimate study and the consideration in
18 its use in selection of protective action was in fact
19 covered. But as to the specifics within it, it was not.

20 Q In general, would you say that this conference
21 covered the application of the regulations, rather than
22 developing the material for a plan?

23 A (WITNESS BATH) Yes, that is true. In other
24 words, there were examples of measures which could be taken
25 to meet criteria. However, they were not held up as, this

1 is the end result. It was to prepare people for an equal
2 application of NUREG-0654, so that one region versus another
3 region would not have a major misinterpretation or unequal
4 application of the criteria.

5 Q Was your participation graded or evaluated in any
6 way?

7 A (WITNESS BATH) Was there grading?

8 Q Was your participation graded or evaluated in any
9 way?

10 A (WITNESS BATH) I am not sure I understood. Are
11 you saying, was my participation graded

12 Q Yes.

13 A (WITNESS BATH) No, it was not.

14 Q Have you ever had any other seminars or course
15 work in traffic engineering?

16 A (WITNESS BATH) No, not specifically.

17 Q Any other kinds of engineering?

18 A (WITNESS BATH) If I reach back into my college
19 days, when I had some engineering courses, yes. If I was to
20 search through the records in the interface with the civil
21 engineers and sound engineers and so forth that I have been
22 involved with through civil defense measures and the
23 courses, there is considerable engineering matters and their
24 relationship to emergency management covered.

25 But specifically, am I engineer-trained, no.

1 Q Can you identify what undergraduate course work in
2 engineering you had which might have relevance here?

3 A (WITNESS BATH) No, I could not. I was just
4 responding to your question.

5 Q Have you ever had seminars or course work in
6 nuclear physics?

7 A (WITNESS BATH) No.

8 Q Or in the operation of a commercial nuclear power
9 plant?

10 A (WITNESS BATH) No. At that conference, there was
11 fairly lengthy discussion, in order to familiarize us with
12 the types of plants in this manner. But no, I am not
13 nuclear engineer trained.

14 Q Have you ever had any seminars or course work in
15 health physics?

16 A (WITNESS BATH) Not specifically. I have been
17 associated throughout the years on a one on one basis with
18 health physicists on the staff of the DCPA. I have a
19 general knowledge of health physics that we apply in
20 emergency management, but not specifically trained in health
21 physics.

22 Q Have you ever had any seminars or course work in
23 psychology?

24 A (WITNESS BATH) Once again, the training is
25 similar. I remember one specific course put on by the Fed

1 Cross, like working with groups. This type of training was
2 interfaced, and it is basically to develop a capability to
3 interface with state and local government in, once again,
4 emergency management.

5 Q When was that Red Cross seminar?

6 A (WITNESS BATH) It was during a period -- I would
7 have to guess at the period. '70 to say '71, '72, 1970,
8 somewhere in that period.

9 Q Can you remember what the specific purpose of that
10 course was? Was it related to flood work or civil defense
11 work?

12 A (WITNESS BATH) There was an attempt in FEMA. It
13 was a positive move by FEMA, which at that time was DCPA, I
14 should say, to broaden and to -- and to give a
15 professionalism type training. And therefore they sought
16 out instructors in courses that were available, such as Red
17 Cross courses, among others.

18 And this course -- I remember the format of the
19 course. It sent the persons off in groups and gave them a
20 difficult problem. It established roleplaying, where
21 certain persons were to try to disrupt the service. And as
22 you went through the course, you learned how to handle and
23 deal with certain people.

24 And it was -- I do not know how to characterize
25 the course, but it was -- it developed that you had to have

1 a certain amount of tact and understanding of working with
2 people in order to effect the course.

3 Q Did the course have anything to do in specific
4 with nuclear power -- commercial nuclear power plants?

5 A (WITNESS BATH) In specific, that subject was not
6 under our specific scrutiny at that time. It had to do with
7 interface in working with state and local government --
8 well, to that degree it would have to do with what we are
9 doing now in REP.

10 Q Have you ever had any seminars or course work in
11 agriculture or animal husbandry?

12 A (WITNESS BATH) No, ma'am.

13 (Counsel for ANGRY conferring.)

14 Q Are you aware of any undergraduate or graduate
15 courses which specifically deal with emergency management?

16 A (WITNESS BATH) Am I -- in a college or
17 university? The Emergency Management Institute is
18 developing and has developed specific courses in emergency
19 management.

20 To jump ahead to possibly the next question, I
21 have not had the opportunity, although I have been scheduled
22 three times, to take the course. Each time it has come up,
23 I have been involved in the process of getting ready for
24 this hearing, and have had to cancel.

25 (Counsel for ANGRY conferring.)

1 Q Is this the first time you have ever prepared
2 testimony regarding emergency planning before this Board or
3 any other tribunal?

4 A (WITNESS BATH) Emergency planning, yes.

5 Q What were your duties between 1975 an 1980 in
6 civil preparedness? Did you actually write plans?

7 A (WITNESS BATH) I interfaced with -- with other
8 colleagues in the preparing of regional emergency response
9 planning, yes, in the role of government, continuity of
10 government in the previous federal preparedness agency
11 roles, in continuity of government. I was directly involved
12 in the planning for that role.

13 The basic role that I performed in DCPA was one in
14 which I was a generalist applying the emergency management
15 principles to nuclear attack preparedness with state and
16 local governments, which got involved in both the in-place
17 shelter planning and the crisis relocation planning for
18 nuclear civil protection, which was the main mission of the
19 Defense Civil Preparedness Agency.

20 Q Was the -- oh, were the duties you had in civil
21 preparedness entirely related to preparation for nuclear
22 war?

23 A (WITNESS BATH) Would you please repeat that?

24 Q Were the duties you had in civil preparedness
25 entirely related to preparation for a nuclear war, as

1 opposed to, say, floods or whatever?

2 A (WITNESS BATH) It was -- it was found that state
3 and local governments, as they got involved in DCPA
4 programs, that in applicability of the measures, the
5 spending of the tax dollars and the utilization of manpower
6 at the state level, had to have a dual use. And therefore,
7 we were involved, through that dual use proposition of the
8 state, in the preparation for floods and other natural
9 disasters, as well as for nuclear war.

10 Q Can you say when -- when that dual use came into
11 being? Was that during the entire period of 1975 to 1980?

12 A (WITNESS BATH) Yes, I guess it has permeated
13 almost since the outset of civil defense in this nation, is
14 that there has been found to be a direct useful link between
15 preparing a government to operate in an emergency for
16 nuclear attack and preparing a government to operate in an
17 emergency in a natural disaster.

18 I think the application of an emergency operations
19 center bears that out.

20 Q Did you actually write plans?

21 A (WITNESS BATH) I would have to say no.

22 Q Did you review plans?

23 A (WITNESS BATH) Yes.

24 Q How detailed were these plans that you reviewed?

25 A (WITNESS BATH) They varied. If you had a

1 community shelter plan or what they call an in-place plan of
2 a small community, you may only be allocating a rather small
3 population to a limited number of shelters. And it was
4 rather a simple process.

5 When you are developing a community shelter plan
6 for the allocation of the population of, say, a city like
7 Philadelphia, to its shelters and you are working out the
8 traffic controls and the public information portion, it is a
9 fairly complicated, complex plan.

10 Q Were any of these plans ever implemented or
11 tested?

12 A (WITNESS BATH) Implemented in the sense that some
13 of the plans were even printed in their final form as a
14 newspaper supplement. Tested as to elements such as
15 government preparedness to implement them, yes.

16 Tested as to the point of actually moving persons
17 to a shelter, no.

18 Q Did you test the communication or volunteer
19 network?

20 A (WITNESS BATH) Communications, yes. The
21 extensiveness of volunteer network I cannot speak to. There
22 -- there has been an ongoing training course called an EOSE,
23 which is the emergency operations simulation exercise, which
24 tests out the plans. In some cases counties have sought to
25 have a more extensive exercise on that. But in most cases

1 it is just the emergency operations centers and the
2 communications capability from there which is tested.

3 (Pause.)

4 Q What were your duties during the TMI-2 accident?

5 A (WITNESS BATH) I was at Region II at the time.
6 That was DCPA. It is now considered Region III FEMA, the
7 emergency facility in Olney at the time.

8 Q Where?

9 A In Olney, Maryland.

10 I was made aware of the situation. At that time I
11 was a regional field specialist. I was part of a two-man
12 liaison team for the State of Pennsylvania for matters
13 pertinent to DCPA.

14 I became involved in the collection of materials
15 and information from whatever sources we could have to
16 provide to our decisionmakers and to provide to our
17 headquarters as to the situation. A person who worked
18 closely with me on that, in fact was the lead on that, was
19 Michael Pawlowski, who is here at the table.

20 After the first night it was determined that I
21 should relocate to Harrisburg and operate as a liaison from
22 Harrisburg to DCPA. Therefore, I drove up and took up my
23 place, which was preplanned, at the state EOC, and I
24 operated at the state EOC for the duration of the accident.

25 It was a 24-hour, around the clock assignment in

1 which I switched off with Maryann Turnell, who at that time
2 was the regional field officer for DCPA.

3 Q Do you remember which day you came up to
4 Harrisburg?

5 A (WITNESS BATH) It was the second day of the
6 accident. I think it was Thursday. I think the accident
7 was -- I'm a little vague on that. I was thinking to go
8 over my notes and I have not had a chance to go back over
9 and look at that specific area. But it was the second day
10 of the accident and I was up there during the day. It was
11 some time a little before noon.

12 (Pause.)

13 Q I guess I'm not clear what your duties were. Did
14 you coordinate information flow from FEMA to the
15 Pennsylvania -- to the state?

16 A (WITNESS BATH) I was the federal presence
17 available in the initial portion of the accident. It was
18 from my reports and Maryann Turnell's reports the decision
19 to provide additional planning services at risk counties --
20 we changed, as the President assigned specific persons to do
21 specific tasks at the TMI scene.

22 I then became the night, if you want to say, in
23 that Maryann Turnell was doing the day shift, the
24 administrator of the various federal personnels who were
25 working in the field, who included planners at host

1 counties, planners at risk counties, communicators at risk
2 counties, and other personnel which had been sent to the
3 state EOC for the State of Pennsylvania's use,
4 Commonwealth's use.

5 (Pause.)

6 Q On your resume there is a list of training,
7 additional training applicable to REP work. One of them
8 says, revised fallout forecast procedures. Could you
9 explain how that training in revised fallout forecast
10 procedures relates to emergency planning for commercial
11 nuclear power plants?

12 A (WITNESS BATH) It -- I do not know if -- I will
13 give you my answer and I guess from that you can see the
14 relationship. It deals with the consideration of wind speed
15 and other meteorological data to determine the amount of
16 fallout that can be expected within certain time frames from
17 a nuclear detonation.

18 There is certain application, at least, in that
19 you are dealing with the same elements on -- on a
20 relationship of wind speed and meteorological data in a
21 fixed nuclear facility incident. That is why I put it
22 down.

23 Q Is that the sum of your training in meteorology?

24 A (WITNESS BATH) Yes, I would characterize it as
25 the sum of my training in meteorology as it is -- it has to

1 be considered in determining effects, both from a fixed
2 nuclear facility incident or from a nuclear detonation.

3 (Pause.)

4 Q Please explain the training you received in
5 estimation and analysis of a shelter yield.

6 A (WITNESS BATH) We have in DCPA a group of
7 engineers who in fact work results in the national fallout
8 shelter survey, where these engineers are going around
9 surveying structures for their possible use in fallout
10 protection in cities and so forth. It was necessary for us
11 as managers of the state program and as -- in order to
12 interface with the county emergency management coordinators,
13 who utilize this material in developing the community
14 shelter plan, to understand the methodologies used to arrive
15 at sheltering yields.

16 That does not mean that I can assess a building.
17 In that sense I am not an engineer and I am not really
18 qualified to do it. But I understand the principles and the
19 methodologies behind it, that arrives at what given
20 protection factor a shelter might have.

21 Q So the phrase "shelter yield" refers both to the
22 protective qualities of a shelter and the number of persons
23 who might be able to use a given shelter?

24 A (WITNESS BATH) I do not believe that particular
25 course covered it, but yes, I was also involved in the

1 amount of persons who might use the shelter through, you
2 know -- through other sources. In other words, when they
3 were talking about the expected shelter yield they were
4 talking specifically about what we call the EASY-II form,
5 which is a chart form, which in engineering utilizes -- to
6 have input to a computer which would arrive at a given
7 protection factor at a given location within a building.

8 And that is that specific course that we are
9 talking about. There were other interfaces with staff that
10 gave me the knowledge as to how many persons can be expected
11 to use X number of square foot of space.

12 Q What is crisis relocation planning and how is it
13 related to evacuation planning for commercial nuclear power
14 plants? Was this a course related to nuclear war
15 considerations?

16 A (WITNESS BATH) Yes. This is crisis relocation
17 planning. It is the second option which is being developed
18 by FEMA. When it is determined that we might be involved in
19 a nuclear confrontation and if the President decides it is
20 prudent, we are required to have plans in order to move the
21 population from certain identified risk areas to less risk
22 areas, i.e., rural areas, rural areas or areas away from
23 defense production plants and so forth.

24 These are the plans that are being developed to
25 implement that, and it deals with moving a large amount of

1 population, the type of organization required to support
2 them at the relocation site.

3 A number of the terms which have been adopted in
4 the REP program were first identified in crisis relocation
5 planning and a number of the concepts, although they had to
6 be modified, are the same concepts applied in crisis
7 relocation planning.

8 (Pause.)

9 Q Can you tell us what documents published about the
10 Three Mile Island accident are -- have you read and what are
11 you familiar with?

12 A (WITNESS BATH) I would hate to give you a list.
13 It seems like I have read anything I could get my hands on
14 since June of 1980, when I found that I was going to be
15 responsible to say something before this panel. I -- I am
16 sure throughout my testimony -- within my testimony you will
17 see references to specific documents and probably in
18 cross-examination other documents may come up.

19 I would rather provide it to you that way than to
20 try to give you a list of all the documents I have done. I
21 can give you -- I can give you a list of the material that
22 has been provided by the state. But --

23 Q Have you, for example, read the Kemeny Commission
24 report and the Kemeny staff report on emergency planning?

25 A (WITNESS BATH) Yes, I have.

1 Q The Rogovin report?

2 A (WITNESS BATH) Yes, I have.

3 Q All of it or the parts on emergency planning?

4 A (WITNESS BATH) I sat down and read and tried to
5 digest as much as I could. There were certain salient
6 points in there that I felt had more meaning to me than
7 others. But yes, I read it and got the flavor of it and
8 --

9 Q The report of the Governor's Commission on Three
10 Mile Island?

11 A (WITNESS BATH) No, I have not seen that
12 document. I do not but what I have not read excerpts from
13 that document, but I have not seen that particular
14 document.

15 Q The Mountain-West study?

16 A (WITNESS BATH) Yes, I have read that.

17 (Pause.)

18 Q Thank you, Mr. Bath.

19 Mr. Adler, have you ever taken any seminars or
20 course work in traffic engineering, such as road capacity
21 analysis?

22 A (WITNESS ADLER) No.

23 Q In health physics?

24 A (WITNESS ADLER) No.

25 CHAIRMAN SMITH: We know the theme of your

1 examination. Maybe you could increase the pace a little
2 bit.

3 BY MS. GAIL BRADFORD: (Resuming)

4 Q In psychology or sociology?

5 A (WITNESS ADLER) Yes, in undergraduate school I
6 took a course in sociology as a minor.

7 Q Have you taken any seminars or course work in
8 radiological monitoring?

9 A (WITNESS ADLER) To the extent that the Emergency
10 Management Institute course at Emmettsburg given by the
11 Federal Emergency Management Agency included that, yes, but
12 not a specific one, although that is a part of my plan,
13 again, when I am free of other obligations.

14 Q In agriculture or animal husbandry?

15 A (WITNESS ADLER) No.

16 Q Which of the documents on Three Mile Island have
17 you read and are you familiar with?

18 A (WITNESS ADLER) So much has been written about
19 Three Mile Island that while I understand your question and
20 will answer it as specifically as I can, I feel that the
21 impressions and technical information which I have gleaned
22 from a lot of documents are more meaningful than recitation
23 of readings. Nonetheless, the answer to your question might
24 include portions of the Rogovin report and the Kemeny
25 Commission report.

1 I think relying on my memory beyond that would be
2 inappropriate.

3 Q Have you read all or parts of NUREG-0600?

4 A (WITNESS ADLER) What is the title of that
5 document? 0654 is my Bible at the moment.

6 Q It is the I&E inspection report on the accident.

7 A (WITNESS ADLER) No.

8 Q Have you ever taken any seminars or course work in
9 evacuation or sheltering planning for commercial nuclear
10 power plants?

11 A (WITNESS ADLER) No.

12 Q Can you tell us what deficiencies in emergency
13 planning were pointed out by the reports you have read or
14 other information you are familiar with from the TMI-2
15 accident?

16 A (WITNESS ADLER) Yes. The -- could you repeat
17 your question, please?

18 Q Can you tell us what deficiencies in emergency
19 planning were pointed out by the reports that you have read
20 or other information that you have on the TMI-2 accident?

21 A (WITNESS ADLER) Yes. However, the deficiencies
22 that I am most -- have been most personally concerned with
23 were those dealing with the man-machine interface. And this
24 is a thread I think that runs throughout the onsite and
25 offsite concerns, emergency planning and related.

1 The inability to absorb a lot of information, a
2 lot of data quickly and respond positively is what I have
3 felt the bottom line was on the accident. This extends to
4 the communications networks and their soft spots on the
5 site, but most importantly off the site, within the
6 communities and the surrounding counties of Three Mile
7 Island.

8 I am not sure that that answers you fully.

9 Q Actually, I think that is the best answer that I
10 have heard to that question.

11 Are you familiar with NUREG-0396?

12 A (WITNESS ADLER) Can you show me the title of
13 that?

14 Q A modified emergency basis.

15 A (WITNESS ADLER) I have read through this. I have
16 it in front of me, thanks to Mr. Bath. I have read through
17 that document as a part of the training at FEMA in
18 radiological emergency preparedness which I received at
19 Emmettsburg this past winter. It was one of a lot of
20 documents in this area that we used as source and reference
21 material.

22 Q Are you familiar with EPA protective action
23 guidelines?

24 A (WITNESS ADLER) Yes, at least those which have
25 been of paramount importance to me in my concerns relating

1 to this hearing.

2 Q Would that include, for example, protective action
3 evaluation, part two?

4 A (WITNESS ADLER) Yes.

5 Q What other emergency planning guidelines are you
6 familiar with?

7 A (WITNESS ADLER) I am not sure I understand what
8 you mean by the term "emergency planning guidelines." I --
9 could you amplify on those three words?

10 Q Well, I would say examples are certainly 0654 a...
11 0396 and the EPA document we have been talking about and
12 other federally published guidelines or criteria.

13 A (WITNESS ADLER) I cannot think at the moment of
14 other significant federal documents. There are changes in
15 the Federal Register, which I try to keep current with, on a
16 weekly basis. In my office, there are basic pieces of
17 paper, like NRC public information sheets dealing with it,
18 and touching on all of these areas, which come to my
19 attention on a continuing basis.

20 The reason that I asked you the question was, I
21 would like to think that state and county plans, though not
22 federal documents, are emergency planning guides of a sort
23 and very important ones to this hearing.

24

25

1 Q I guess I was thinking about guidelines that would
2 assist someone in writing a plan rather than a plan itself.

3 A (WITNESS ADLER) The report to the President by
4 FEMA, June 1980 and -- I would have to add to your list of
5 important federal documents with which I am somewhat
6 familiar.

7 (Pause.)

8 Q What TMI area plans have you read or reviewed and
9 in which drafts?

10 A (WITNESS ADLER) The state plan and the five
11 county plans. In the case of the state plan it is last
12 March -- well, I am sorry. I guess I am being coached.
13 Pertinent to the state plan most specifically, the Exhibit
14 2-B, Annex E, which I think is only weeks old, was the most
15 significant document that I have read. And I would like to
16 say that it was wholly consistent with its predecessor
17 document which I read and which was the basis for a good
18 deal of mine and Mr. Bath's testimony.

19 The county plans which, as we know, are being
20 revised now, the version that I am most familiar with is the
21 current version, the word "current" meaning the one that
22 applies before I see the revisions, which I am most anxious
23 to see.

24 CHAIRMAN SMITH: Ms. Bradford --

25 WITNESS ADLER: I do not know the date of that,

1 but maybe we can give that to you if you --

2 (Panel of witnesses conferring.)

3 WITNESS ADLER: By and large, last spring through
4 autumn are the dates that apply to those five county plans.

5 CHAIRMAN SMITH: I think you were going from voir
6 dire into cross examination on the particular testimony. I
7 think you should complete your voir dire and either pursue
8 your objection or not and then go to the cross examination
9 on the testimony itself if it is admitted.

10 Isn't that correct? I mean, isn't that what you
11 are doing now? You are not going into their qualifications
12 as witnesses per se based upon their knowledge of the five
13 county plans. You have every right to examine them on their
14 testimony with respect to the county plans, but it seems to
15 me that you are going beyond just voir dire.

16 MS. GAIL BRADFORD: Sir, I think my question was
17 well within voir dire, and I think that this -- it is a kind
18 of borderline area. Obviously there is a substantive part
19 of that also.

20 CHAIRMAN SMITH: All right.

21 MS. GAIL BRADFORD: And I do wish to continue the
22 voir dire. I will stay within the subject matter.

23 BY MS. GAIL BRADFORD: (Resuming)

24 Q Have you read any of the municipal plans for the
25 TMI emergency planning zone?

1 A (WITNESS ADLER) I am sorry. I did not hear the
2 word. Was it "municipal?"

3 Q Yes.

4 A (WITNESS ADLER) Have I read any municipal -- no,
5 I have not seen any municipal plans.

6 Q Or any school plans?

7 A (WITNESS ADLER) No.

8 Q What is your experience in writing plans for the
9 protection of large numbers of people in an emergency
10 situation?

11 A (WITNESS ADLER) To the extent that I was involved
12 along with other colleagues in my job at the U.S. embassy in
13 Iran just preceding the Shah's departure I provided input to
14 the overall approach used for evacuation of close to 40,000
15 Americans from that country on a very tight timetable.

16 And I am not suggesting that I had a major role.
17 I was a participant. My son in fact was evacuated and was
18 part of the dynamics of that exodus, of that evacuation.

19 That is the extent of my most firsthand
20 involvement.

21 Q What is your experience in reviewing plans for
22 large numbers of people in emergency situations?

23 A (WITNESS ADLER) That experience has been very
24 real and practical in that it started I guess the day I
25 joined FEMA and was chosen on a competitive basis to hold

1 the position of director of the Division of Plans and
2 preparedness at Region III in Philadelphia. The plans were
3 there when I got to my desk on January 6.

4 Q So you are saying you did not have any experience
5 in reviewing plans before you were hired, but you have had
6 plenty of opportunity since.

7 A (WITNESS ADLER) That is not so. This restatement
8 of your question is a little different than the first
9 question. I have reviewed plans. I have been in the
10 business of program evaluation management for more than two
11 decades.

12 If you would like, I would be happy to elaborate.

13 Q Well, let's stick with reviewing plans that deal
14 with large numbers of people in emergency situations.

15 A (WITNESS ADLER) To that extent I have identified
16 the work I have done to date.

17 Q Did any of your work with the Atomic Energy
18 Commission, Westinghouse, Combustion Engineering, or with
19 the State Department relate in any way to emergency planning
20 for commercial nuclear power plants, aside from the Tehran
21 example that you gave us?

22 A (WITNESS ADLER) Yes, very definitely. The
23 experience that I have had in the commercial nuclear power
24 field bears directly on that, I feel. I have, for example,
25 taken a nuclear reactor simulator course where I have for a

1 week been in the control room of a pressurized water reactor
2 simulator and was taught to respond to numerous conjectured
3 accident situations from within the plant.

4 The appreciation for redundancy in the design of
5 systems and subsystems within the nuclear reactor itself is
6 also, I think, related.

7 Ms. Bradford, could you please restate that
8 question so that I do not just ramble? I would like to try
9 to stay to your point as best I can.

10 Could you restate your question?

11 Q Well, the question was whether your previous work
12 experience relates in any way to emergency planning for a
13 commercial nuclear power plant, and if so, how?

14 A (WITNESS ADLER) As program control manager for
15 the development of the heavy-water organic cooled reactor --
16 this was a joint venture supported by the Atomic Energy
17 Commission in the mid-'60s -- we had great concerns about
18 intrinsic safety of the design of that plant which used an
19 organic material as distinct from water which is used in the
20 PWR that we are so concerned with here. Safety systems and
21 reactions to postulated accidents have been an integral part
22 of all of my involvements including the work for the
23 Westinghouse Atomic Power Division, Bettis, which was not
24 commercial but Navy nuclear corps.

25 And I guess I should add that in that regard my

1 major emphasis resided with the concerns about nuclear
2 fuel. Being a metallurgical engineer I have always felt
3 more comfortable with concerns and interests in that side of
4 the plant.

5 Q Where did you receive your B.S. or M.A. degrees
6 from?

7 A (WITNESS ADLER) My Bachelor of Metallurgical
8 Engineering degree was received at New York University, and
9 my Master of Business Administration also at New York
10 University.

11 Q Is this the first time you have ever prepared
12 testimony regarding emergency planning?

13 A (WITNESS ADLER) Yes.

14 (Counsel for ANGRY conferring.)

15 MS. GAIL BRADFORD: Sir, could I have a few
16 minutes to confer with Mr. Cunningham?

17 CHAIRMAN SMITH: Let's take our mid-morning break.

18 MS. GAIL BRADFORD: Thank you.

19 (Recess.)

20 CHAIRMAN SMITH: Before we go back to the
21 testimony, at my request Mr. Brenner made a telephone call
22 to Ellen Weiss of the Union of Concerned Scientists
23 regarding the block valve tests. Mr. Brenner stated that
24 UCS could have an opportunity to reply to their initial
25 motion, and Ms. Weiss said they wished to do so. They will

1 file a response by Wednesday, April 22, and if possible will
2 attempt to better this time and provide their response on
3 Monday, April 20 to my office in Bethesda.

4 Mr. Brenner stated that in addition to whatever
5 UCS wanted to say, it would be useful if they indicated
6 whether UCS still wanted to have testimony developed on the
7 block valve tests, and if so, on what points in light of the
8 pleadings and affidavits filed by the other parties.

9 We noted that the transcript had a misspelling of
10 Mrs. Georgiana Nyce's name. The last name was misspelled.
11 For the record it should be the limited appearer was Mrs.
12 Georgiana Nyce, N-y-c-e, of 3124 Prince Street, Harrisburg,
13 Pennsylvania.

14 Ms. Bradford or Mr. Cunningham, whoever wishes to
15 address the motion.

16 (Counsel for ANGRY conferring.)

17 MS. GAIL BRADFORD: I would like to ask Mr.
18 Pawlowski how familiar he is with the TMI plans in
19 particular.

20 CHAIRMAN SMITH: All right. That is fine, but
21 doesn't that get into the substantive -- we are trying to
22 still address your motion on the objections to the
23 testimony. Now, you are going to have other opportunities
24 to inquire into the substance of the testimony if the
25 testimony is admitted over your objections, unless you are

1 using the TMI experience as part of the qualifications to
2 testify. That was the point I was making before. I mean,
3 keep your substantive concerns separate from your voir dire.

4 MS. GAIL BRADFORD: Yes, sir. I see two concerns
5 for the voir dire. One is their general background and
6 experience and education, and second is their familiarity
7 with Three Mile Island. And I was not going to ask Mr.
8 Pawlowski about his professional background, but I was going
9 to -- I was interested to know what his knowledge, his
10 direct personal knowledge of the Three Mile Island area
11 plans is.

12 CHAIRMAN SMITH: Would that appropriately be then
13 part of the substantive background? Voir dire right now is
14 for the purpose of determining whether the testimony is
15 received or not.

16 MS. GAIL BRADFORD: All right.

17 CHAIRMAN SMITH: So after having made your voir
18 dire are you still pursuing your objection? Do you object t
19 the testimony being received?

20 MS. GAIL BRADFORD: Yes, sir. We object to the
21 testimony at this time.

22 CHAIRMAN SMITH: Now, would you state your reasons
23 and --

24 (Counsel for ANGBY conferring.)

25 MS. GAIL BRADFORD: Well, we feel that the

1 witnesses do not have the educational background to warrant
2 that they could make this testimony. We do not feel that
3 they have practical experience in evacuation or sufficient
4 background in analyzing plans of this sort. We feel they do
5 not have particular practical knowledge of such important
6 things as the efficacy of sheltering or considerations about
7 traffic engineering or road capacity, and that they do not
8 have a sufficient knowledge of health physics.

9 MR. CUNNINGHAM: Mr. Chairman, to bring it into
10 focus, what we are saying is that the credentials of Mr.
11 Bath and Mr. Adler would be not on an educational basis but
12 on an experience basis. It seems most of their testimony
13 would go to their experience, what they have gained
14 practical knowledge-wise.

15 And I would suggest to the Board -- of course, it
16 is for the Board to give what weight they will to the
17 testimony elicited if testimony is in fact elicited from
18 these witnesses. But what we are saying is that FEMA is
19 presenting testimony before this Board for its consideration
20 that on the face of it, short of some seminars which the NRC
21 or FEMA has conducted with regard to NUREG-0654, that any
22 intervenor who has been actively involved in the emergency
23 preparedness contentions would have similar experience.

24 That is not to say that that may be a
25 consideration for you not to accept the testimony, but if

1 the testimony is accepted, it would certainly go to the
2 weight of their testimony to be given by this Board. And it
3 is our position that what we are talking about is a very
4 critical issue upon which testimony, direct testimony is
5 being presented as to the status of the emergency plans.
6 And the witnesses being presented have no real educational
7 background in the area, and what they have gained is
8 practical experience.

9 And I think that if their testimony is accepted,
10 if you overrule our objection, then the Board should give
11 some serious consideration as to the weight that testimony
12 should be given.

13 CHAIRMAN SMITH: Okay. The procedure we will
14 follow here is we will ask for any additional objections,
15 any additional voir dire, if any, on additional objections,
16 and an opportunity for the Staff for redirect on voir dire
17 if it wishes, and then a response to all of the objections.

18 Are there any additional objections to the
19 testimony?

20 MS. GAIL BRADFORD: Yes, sir. The other area of
21 concern I have is that this has not been presented as a
22 formal FEMA finding, and that this is just testimony.

23 CHAIRMAN SMITH: I was hoping that term would not
24 enter the literature, formal FEMA finding. I am afraid it
25 has been used often enough so we will be stuck with it. So

1 would you explain that in more detail?

2 MS. GAIL BRADFORD: Well, going back to the rule
3 on emergency planning, it provides for the Staff to base its
4 evaluation on FEMA findings; and the Staff has said that
5 this is testimony and not findings.

6 CHAIRMAN SMITH: Yes.

7 MS. GAIL BRADFORD: So I do not know whether this
8 is sufficient evidence or whether this is FEMA's official
9 position or just a temporary position or an interim position
10 or what, what kind of evaluation this is and how the staff
11 can present its testimony based on this.

12 CHAIRMAN SMITH: I think that your observations
13 are not a basis for objection, but that is an area
14 appropriately inquired into. I think we should establish
15 that either through the witnesses or through their
16 representative, Mr. Cosgrove here, as a statement of
17 position or through any other route. But I agree, we should
18 establish that, and we will address that.

19 MS. GAIL BRADFORD: Thank you, sir.

20 CHAIRMAN SMITH: All right, now, Mr. Gray. I was
21 asking for additional objections and additional voir dire in
22 support of objections.

23 (No response.)

24 CHAIRMAN SMITH: All right. Now, we may have
25 additional voir dire in support of the competence of the

1 witnesses to testify.

2 MR. COSGROVE: Chairman Smith, let me take this
3 opportunity. I think that Mr. Bath's qualifications are
4 fairly well laid out, and I would like a few minutes to add
5 to Mr. Adler's testimony.

6 CHAIRMAN SMITH: Okay. We have now a little bit
7 of a technical problem about your appearance, and it is only
8 technical because we very much welcome your appearance here,
9 and we appreciate it.

10 But how are you appearing? As co-counsel with Mr.
11 Gray on this presenting these witnesses?

12 MR. COSGROVE: Yes.

13 CHAIRMAN SMITH: All right, then. That is
14 entirely up to the Staff, who they wish to present as
15 co-counsel, and you can comply with the Commission rules and
16 notice your appearance orally if you will.

17 What bar are you a member of?

18 MR. COSGROVE: I'm a member of the bar of the
19 State of Massachusetts.

20 CHAIRMAN SMITH: And you are general counsel?

21 MR. COSGROVE: General counsel, Federal Emergency
22 Management Agency, Washington, D.C. 20472.

23 CHAIRMAN SMITH: And you are appearing as
24 co-counsel with Mr. Gray.

25 MR. COSGROVE: Yes.

1 (Board conferring.)

2 CHAIRMAN SMITH: Make sure your microphone --

3 REDIRECT EXAMINATION ON VOIR DIRE

4 BY MR. COSGROVE:

5 Q Mr. Adler, you are the director, Division of Plans
6 and Preparedness for the Federal Emergency Management
7 Agency, Region III, in Philadelphia.

8 A (WITNESS ADLER) Yes.

9 Q What are your duties and responsibilities in that
10 position?

11 A (WITNESS ADLER) I manage a division with major
12 responsibilities in radiological emergency preparedness,
13 continuity of government, and civil defense among the
14 broader gamut of FEMA responsibilities.

15 Q You are primarily the management officer for the
16 radiological emergency preparedness program we are presently
17 conducting in this region.

18 A (WITNESS ADLER) Yes.

19 Q What is your experience in program evaluation and
20 planning management which prepared you for your present
21 position?

22 A (WITNESS ADLER) I have spent more than 20 years
23 in the business of program evaluation management. In the
24 mid-'60s I in fact studied, took a course in program
25 evaluation review techniques and was responsible for the

1 program evaluation management of the effort I spoke of
2 earlier, the joint venture for development of a heavy-water
3 organic cooled reactor.

4 Program evaluation management, as the U.S.
5 countersigner for a \$60 million dollar scientific exchange
6 program between interdisciplinary groups in the Polish
7 scientific community and in the U.S. scientific community
8 while I was counselor for scientific and technological
9 affairs at our embassy in Warsaw, Poland.

10 Q Mr. Adler, what is the present function of Region
11 III in regard to the planning -- excuse me -- the
12 radiological emergency preparedness planning for Three Mile
13 Island Unit No. 1?

14 A (WITNESS ADLER) We are -- that is, the Plans and
15 Preparedness Division is a response organization in the
16 event of such an incident for the federal government, the
17 primary conduit to other federal agencies.

18 CHAIRMAN SMITH: Mr. Cosgrove, I am sorry. I was
19 distracted for a moment. I heard the answer. I did not
20 hear the question. Would you repeat it?

21 MR. COSGROVE: I asked him what the present
22 function of FEMA was in regard to the radiological emergency
23 preparedness planning for Three Mile Island Unit No. 1.

24 WITNESS ADLER: We have, in addition, within our
25 responsibility and within my division the RAC, Regional

1 Assistance Committee, chairmanship. This is an interagency
2 body -- EPA, NRC, among others -- which review state and
3 local plans, provide comments to the state so that they can
4 upgrade their plans, assist the state in its preparation for
5 an exercise, specifically the upcoming June 2 exercise. The
6 Department of Transportation is involved. The Health and
7 Human Services have members on this RAC, Regional Assistance
8 Committee, which is chaired by one of the people in my group.

9 Approximately half my staff is currently actively
10 engaged in radiological emergency preparedness activities.

11 BY MR. COSGROVE: (Resuming)

12 Q So you are primarily a manager.

13 A (WITNESS ADLER) Yes.

14 Q What specific courses on radiological emergency
15 preparedness have you taken and what were their content?

16 A (WITNESS ADLER) The most recent course that I
17 attended was at Emmetsburg. It is the Federal Emergency
18 Management Agency's radiological emergency planning course.
19 The specific content of that course I will read into the
20 record just headlines. "The Basics of Nuclear Reactor
21 Technology, Accident Scenario Reactor Releases, Biological
22 Consequences of Radiation Exposure, Protective Action
23 Guides, and Protective Actions, Detection of the Releases,
24 Background Information for the Nuclear Power Plant Offsite
25 Emergency Planner, Food Pathway, Planning Emergency Guides,

1 the Radiological Emergency Planning Process, Workshop in the
2 Above Areas, Workshop Applications of Radiological Emergency
3 Preparedness, Documents, Licensing Requirements for
4 Emergency Preparedness, REP Exercises."

5 These are the headlines for the topics included in
6 that week's course on emergency management given in the
7 Emergency Management Institute of my agency.

8 Q Did this course contain substantially new
9 information to you, or did it merely refresh previous
10 knowledge?

11 A (WITNESS ADLER) Both. The emphasis placed on
12 onsite activity, specifically what goes on inside the
13 reactor, how it works, what goes on in the control room were
14 basically refresher information to me. Much of the
15 substance of things like the exercise were largely new since
16 I joined the agency in January.

17 Q Since you joined the agency in January you have
18 been engaged in a rather heavy work schedule limited to the
19 REP area, haven't you?

20 A (WITNESS ADLER) Yes. Most of my attention has
21 had to be placed in this area.

22 Q About 90 percent?

23 A (WITNESS ADLER) That is a fair number.

24 Q And you have been working more than eight-hour
25 days.

1 A (WITNESS ADLER) I am sorry. Would you repeat
2 that?

3 Q You have been working more than eight-hour days.

4 A (WITNESS ADLER) Of course.

5 Q In some cases 10 and 12-hour days?

6 A (WITNESS ADLER) Yes.

7 Q So you have substantial familiarity with a very
8 limited field.

9 A (WITNESS ADLER) Yes.

10 Q Are you familiar with most of the NRC and FEMA
11 documents regarding offsite radiological emergency
12 preparedness?

13 A (WITNESS ADLER) Those that have been most
14 important to this proceeding, yes.

15 Q And you have been briefed by a staff at Region III
16 on radiological emergency preparedness within this region.

17 A (WITNESS ADLER) I am very fortunate indeed to
18 have a highly qualified staff in this area, yes.

19 Q And they have engaged in a pretty extensive
20 education process for you on this particular subject.

21 A (WITNESS ADLER) Yes.

22 MR. COSGROVE: I have no further questions.

23 CHAIRMAN SMITH: Mr. Adler, could you explain in
24 somewhat more detail what is involved in the skill or the
25 discipline of program evaluation management?

1 WITNESS ADLER: Program evaluation management
2 really is a day-to-day effort in organizing with the
3 objective of meeting specific obligations in complex
4 interdisciplinary programs.

5 Usually the parameters of time and money coupled
6 to the goals which are laid out at the outset of the program
7 are the key parameters, time and money, keyed to milestones
8 of accomplishments. It is a measurement mechanism.

9 I am trying to give you, Mr. Smith, what I feel is
10 a somewhat formalistic answer.

11 CHAIRMAN SMITH: I am interested in the
12 transferrability of one discipline to -- I mean, from one
13 field to another, similar to the way, for example, an
14 investment corporation might hire a military person as a top
15 level executive.

16 Could you address the transferrability from one
17 field to the other of program evaluation management?

18 WITNESS ADLER: Yes. A key milestone in the
19 program evaluation management for REP is the assemblage of
20 RAC comments to state and local plans submitted to FEMA.
21 That milestone is a document with information in it that
22 allows us to judge, if you will, by the guidelines of 0654
23 the responsiveness or the content of these plans. It is one
24 milestone.

25 CHAIRMAN SMITH: My question is could you explain

1 why you feel that experience in program evaluation
2 management in another field helps you perform -- manage the
3 activities in another field? What in common is there that
4 you can transfer from one field to another? Are there basic
5 planning concepts, management concepts that are more or less
6 universal within the organizations?

7 WITNESS ADLER: There has to be a regimen
8 applied. That is where the transferrability comes from. By
9 having been involved in program evaluation management for
10 two decades, you are concerned with the coordination of
11 multiple resources, coordinating them, for example, how
12 important -- may I just elaborate -- how important is an
13 evacuation plan in the context of adequate state and county
14 planning around TMI. Very important. How do all the pieces
15 fit together.

16 This is the kind of thought process that is
17 universal to every kind of program evaluation.

18 CHAIRMAN SMITH: Identify priorities.

19 WITNESS ADLER: Indeed. And when I mentioned time
20 and money before, those were two specific priorities of most
21 of the programs that I was associated with before REP. They
22 are still very important. Public health and safety is the
23 primary priority.

24 CHAIRMAN SMITH: Okay. Are there any further
25 questions or comments?

1 (No response.)

2 CHAIRMAN SMITH: I think the Board is prepared to
3 rule. We have already discussed it in general without the
4 benefit of the redirect which has been helpful.

5 To begin with, much of the testimony objected to
6 is not expert opinion; it is factual testimony explaining
7 what the agency has done, what these people have done. It
8 is summary type of testimony. It is also in some respects a
9 checklist type of testimony. Every aspect of this part of
10 the testimony is verifiable. It does not necessarily depend
11 upon the expert opinions of the witnesses.

12 Now, we have not gone through both pieces of
13 testimony to try to pull out which is factual testimony and
14 which is expert because we did not read it with your
15 objections in mind. But as you can see, much of the
16 testimony does not have to be given by an expert in the
17 field. It just has to report what has happened or what the
18 papers say or whatever is the relevant -- the respective
19 part of the testimony.

20 Now, as to expert testimony, Ms. Bradford
21 identified almost by the exact words the language of the
22 rules, the Federal Rules of Evidence which gives us guidance
23 in our proceedings. Rule 702, testimony by experts. "If
24 scientific" -- I am reading from it now -- "If scientific,
25 technical, or other specialized knowledge will assist the

1 tryer of fact to understand the evidence or to determine a
2 fact at issue, a witness qualified as an expert by
3 knowledge, skill, experience, training, or education may
4 testify thereto in the form of opinion or otherwise."

5 So there is no need, for example, that a person be
6 educated in a particular field, nor trained, nor have
7 experience, nor have skill. But sooner or later they are
8 going to have to touch one of them and have knowledge alone.

9 The area of what an expert may or may not do or
10 testify to is extremely complicated and very, very broad,
11 but certainly both of these witnesses have demonstrated an
12 opportunity to know about emergency planning; and they have
13 had a limited amount of experience as they have testified.
14 So we believe that they do qualify as experts for the
15 purpose of this testimony.

16 Now, specifically, where there may be specific
17 opinions given as to which you wish to challenge their
18 expert skills to testify to, you may do so, but right now
19 your objections are to the entire testimony, so we are not
20 ruling upon specific parts of it. We are ruling may the
21 body of testimony come in. You may make motions later on if
22 you wish that certain aspects of it be stricken because of
23 failure of expertise.

24 Then there is another aspect of it and that is,
25 this has been my experience and I would imagine the

1 experience of many tryers of the fact, this is an unusual
2 situation. The Federal Emergency Management Agency has been
3 charged by Congress with administrating its program and for
4 the use of federal civil servants.

5 I do not think it has been possible for people to
6 make their living very well in the past in the area of
7 nuclear emergencies. They have had to begin where they can
8 with whatever disciplines are most carefully transferrable
9 from other areas to this rather new, unique area.

10 Now, we cannot use that problem and the need for a
11 solution to it as a substitute for reliable, probitive, and
12 substantive evidence, which is always the requirement that
13 we must apply. However, there is a standard in American
14 administrative law; that is, the agency charged with
15 performing a function shall be given deference, and for that
16 reason alone I think it would be appropriate to bring in --
17 that is an independent reason -- to bring in the testimony
18 of these witnesses subject, however, to challenge as to
19 weight, and striking where it exceeds the confidence of the
20 individual. But that would be an independent basis upon
21 which we do not rest, but we could if we wished.

22 I had another point, but it escapes me. Oh, yes.
23 We do want to know, however, now by the witnesses or by Mr.
24 Cosgrove if these are the people who will do the formal FEMA
25 finding. We understand it has been represented to us by Mr.

1 Gray that this is not the formal FEMA finding.

2 Do you have a better term for that?

3 (Laughter.)

4 "Final" is not much better.

5 MR. COSGROVE: Final determination.

6 CHAIRMAN SMITH: Final FEMA determination.

7 MR. COSGROVE: I don't think FEMA could give a
8 final plan approval, but we give a finding and determination
9 on May 15, and that will come from the national office of
10 FEMA versus the region.

11 CHAIRMAN SMITH: Well, all right. Will these then
12 be -- these witnesses be important participants in the
13 making of that formal finding?

14 MR. COSGROVE: They are important participants in
15 that process right now and will provide the primary
16 information upon which the final decision by an individual
17 decisionmaker will be made.

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1 CHAIRMAN SMITH: All right. We will not attach a
2 rebuttable assumption to the testimony presented today. You
3 are indicating, yes, that is a correct decision.

4 MR. COSGROVE: Sir, I am sure all the Board's
5 decisions are correct. I have no rebuttal to that.

6 CHAIRMAN SMITH: All right. So with that ruling,
7 we will receive the testimony and the professional
8 qualifications into evidence as if read into the
9 transcript.

10 (The document referred to follows:)

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
METROPOLITAN EDISON COMPANY, <u>ET AL.</u>)	Docket No. 50-289
)	(Restart)
(Three Mile Island Nuclear Station,)	
Unit 1))	

TESTIMONY OF FEMA'S VERNON E. ADLER AND
FREDERICK J. BATH ON CONTENTIONS
RELATED TO OFFSITE EMERGENCY PREPAREDNESS

MARCH 16, 1981

OUTLINE

TESTIMONY OF FEMA'S VERNON E. ADLER AND FREDERICK J. BATH ON CONTENTIONS RELATED TO OFFSITE EMERGENCY PREPAREDNESS

This testimony addresses the 54 remaining contentions directed to State and local emergency plans and offsite emergency preparedness.

This testimony is subdivided into the major areas of emergency planning of:

- (A) Protective Action Decisions;
- (B) Public Warning and Emergency Instructions;
- (C) Implementation of Protective Actions, including
 - (i) Communications, (ii) Support Services, (iii) Chain of Command, (iv) Staffing, (v) Protection of Property/Live-stock and (vi) Other;
- (D) Post Evacuation Support; and
- (E) Funding for Emergency Response and Adequacy of Municipal Resources,

insofar as these relate to offsite emergency planning and State and local emergency plans.

York and Dauphin County plans address the protective action decision-making process for evacuation taking into account such factors as resident populations and traffic estimates. FEMA asserts the need for a sensitivity analysis, in agreement with the intervenor, which includes evacuation time estimates which consider adverse weather and road conditions and shifts in population movement due to transient daily work force and seasonal recreational groups. The licensee has completed such a study, intended to meet FEMA requirements; it is under review and its adequacy will be assessed in the course of this hearing.

In the area of public warning and emergency instructions, this testimony identifies deficiencies in offsite preparedness with regard to coverage by the siren warning systems currently operational in York and Dauphin counties. Deficiencies of this kind are to be corrected by the licensee in response to NRC Rule (10 CFR Part 50) and in conformance with NUREG-0654, requiring essentially complete siren alert coverage within the plume exposure EPZ.

Testimony in this area also addresses the necessity for notification using the Emergency Broadcasting Station (EBS), conventional telephonic and other communications media, integral to a positive program of public information planning and execution.

The adequacy of five involved county government communications links is established in the portion of this testimony (communications) which addresses the implementation of protective actions. Use of telephones to notify key officials and working arrangements to obtain augmenting volunteer communications services are described for York and Dauphin Counties.

Also in the implementation of protective actions (support services), the York County plan is deemed deficient because it neither identifies hospitals which have the capability to treat people exposed to radiation, nor does it identify that group of people whose mobility may be impaired. The stated FEMA recommendation is that sufficient radiological monitoring equipment should be located with the emergency response organizations which will be using it.

The need for letters of agreement between local and county bus companies is endorsed by FEMA; actions to be taken in an evacuation of York county are clarified, including a statement of potential need for the county to request

unmet resources through FEMA, at the State Emergency Operations Center (EOC).

Testimony states that the National Guard will meet a radiological emergency situation with conventional military clothing and without radiation protective equipment. The role of the Red Cross is clarified and the expectation is stated by FEMA that there will be significant law enforcement personnel and reinforcements available to insure that law and order is maintained in the evacuated areas. Additionally, within the area of the implementation of protective actions, it is asserted that the State's Bureau of Radiological Protection would advise concerning procedures to be followed in dealing with contaminated members of the public. FEMA anticipates that the procedures for decontamination at mass care centers, presently absent from county plans, will be provided for FEMA review by mid-April 1981.

It is recommended that county plans be modified to identify and to provide for substitute management coordinators in the absence of a key person during an emergency.

Because the highest priority of emergency planning under NUREG-0654 is protection of human life, not property, FEMA testimony elaborates on the recommended care of property and livestock, taking into account accident severity and the prospect on an ad hoc basis, for actions to protect property/livestock investment. This can include travel within the plume exposure EPZ for livestock care to be controlled by local officials and based on existing conditions.

FEMA states its view in this testimony, based on previous experience in disaster situations, that emergency workers do perform their assigned functions in situations where their own families may be endangered by the emergency.

It is FEMA's view that additional planning on the issues of school evacuation and bus re-routing should be included in the York County plan, and that the Dauphin County plan include in its school evacuation planning, early notification of bus drivers by school officials and district school plans which provide for school bus use from beyond the plume exposure EPZ.

The unique needs of groups such as the Old Order Amish community are addressed with recognition that the licensee, state and local governments have the responsibility to ensure that procedures and facilities exist to meet needs of such groups.

In the area of post evacuation support, testimony is given in response to an asserted need for auxiliary/back-up electrical power and heating systems at mass care centers.

Finally, the question of availability of funds to York County Commissioners to provide for emergency expenses arising from an evacuation is addressed, while noting the fact that the source(s) of funds for payment of emergency expense is not within the scope of NUREG-0654 planning standards or its criteria.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

METROPOLITAN EDISON COMPANY

(Three Mile Island, Unit 1)

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Docket No. 50-289
(Restart)

TESTIMONY OF FEMA'S VERNON E. ALDER AND
FREDERICK J. BATH ON CONTENTIONS RELATED TO OFFSITE
EMERGENCY PREPAREDNESS

Aamodt Contention	5	(EP-2)
ANGRY Contentions	IIIB(F)	(EP-5C)
	IIIC(7)	(EP-6A)
	IIIC(8)	(EP-6B)
	IIIC(9)	(EP-6C)
	IIIC(10)	(EP-6D)
	IIIC(12)	(EP-6F)
	IIIC(13)	(EP-6G)
ECNP Contention	2-2(i)	(EP-10)
Newberry Contention	3	(EP-14C)
York Plan	4	(EP-14D)
	8	(EP-14H)
	9	(EP-14I)
	11	(EP-14K)
	12	(EP-14L)
	15	(EP-14O)
	16-1	(EP-14P)
	17	(EP-14R)
	18	(EP-14S)
	19	(EP-14T)
	20	(EP-14U)
	21	(EP-14V)
	22	(EP-14W)
	23	(EP-14X)
	24	(EP-14Y)
	26	(EP-14AA)
	27	(EP-14BB)
	29	(EP-14CC)
	31	(EP-14EE)
	33	(EP-14GG)
	34	(EP-14HH)
	35	(EP-14II)

Newberry Contention	37	(EP-14KK)
York Plan	38	(EP-14LL)
(continued)	39	(EP-14MM)
	40	(EP-14NN)
 Newberry Contention	 2	 (EP-16B)
Dauphin Plan	3	(EP-16C)
	5	(EP-16E)
	6	(EP-16F)
	7	(EP-16G)
	8	(EP-16H)
	9-1	(EP-16I)
	9-2	(EP-16J)
	14	(EP-16N)
	15	(EP-16O)
	16	(EP-16P)
	17	(EP-16Q)
	18	(EP-16R)
 Newberry Contentions	 3b(12)	 (EP-1400)
	3c(5)	(EP-16T)
 Sholly Contention	 8I(B)(3)	 (EP-17A(3))

TESTIMONY OF FEMA'S VERNON E. ADLER AND FREDERICK J. BATH
ON CONTENTIONS RELATED TO OFFSITE EMERGENCY PREPAREDNESS

Q.1. State your name and title.

A. (Mr. Bath) I am Frederick J. Bath, an Emergency Management Specialist for the Federal Emergency Management Agency (FEMA), assigned to FEMA Region III, Philadelphia, Pennsylvania.

(Mr. Adler) I am Vernon E. Adler, Director, Division of Plans and Preparedness for FEMA Region III in Philadelphia, Pennsylvania.

Q.2. Do you have statements of professional qualifications?

A. Yes. Our statements of professional qualifications are attached to the "Testimony of Frederick J. Bath and Vernon E. Adler of the Federal Emergency Management Agency on Certain Offsite Emergency Planning Contentions" filed on February 23, 1981.

Q.3. What is the purpose of this testimony?

A. The purpose of this testimony is to address those contentions in the TMI-1 restart proceeding related to offsite emergency preparedness which were not addressed in our written testimony filed on February 23, 1981.

In this testimony, these contentions have been categorized in various major emergency planning areas as follows:

A. Protective Action Decisions

Newberry Contentions York Plan 34 (EP-14(HH)), 37 (EP-14(KK)), 39 (EP-14(MM)), 40 (EP-14(NN)), and Newberry Contentions Dauphin Plan 14 (EP-16(N)) in part, and 16 (EP-16(P));

B. Public Warning and Emergency Instructions

Newberry Contention York Plan 3 (EP-14(C)) in part, 15 (EP-14(O)), 19 (EP-14(T)), and 24 (EP-14(Y)); Newberry Contention Dauphin Plan 5 (EP-16(E));

C. Implementation of Protective Actions

(i) Communications

ANGRY Contention IIIC(9) (EP-6(C)); Newberry Contentions York Plan 4 (EP-14(D)) and 16-1 (EP-14(P)); and Newberry Contentions Dauphin Plan 3 (EP-16(C)), 6 (EP-16(F)), and 17 (EP-16(Q));

(ii) Support Services

ANGRY Contentions IIIC(7) (EP-6(A)), IIIC(8) EP-6(B)), and IIIC(10) (EP-6(D)); Newberry Contention York Plan 3 (EP-14(C)) in part, 9 (EP-14(I)), 11 (EP-14(K)), 12 (EP-14(L)), 18 (EP-14(S)), 21 (EP-14(V)), 22 (EP-14(W)), 23 (EP-14(X)), 29 (EP-14(CC)), 35 (EP-14(II)); Newberry Contentions Dauphin

Plan 7 (EP-16(G)), 8 (EP-16(H)), and 15 (EP-16(O)); and
Newberry 3b(12) (EP-1400); ECNP 2-28 (EP-10);

(iii) Chain of Command

Newberry Contentions York Plan 8 (EP-14(H)) and 17 (EP-14(R))
and Newberry Contention Dauphin Plan 9-1 (EP-16(I));

(iv) Staffing

Newberry Contention York Plan 38 (EP-14(LL)) and Newberry
Contention Dauphin Plan 2 (EP-16(B));

(v) Protection of Property/Livestock

Aamodt Contention 5 (EP-2); and Newberry Contention York
Plan 27 (EP-14(BB));

(vi) Other

ANGRY Contentions IIIB(F) (EP-5(C)) and IIIC(12) (EP-6(F));
Newberry Contentions York Plan 20 (EP-14(U)) and 26 (EP-14(AA));
Newberry Contentions Dauphin Plan 9-2 (EP-16(J)), 14 (EP-16(N)),
and 18 (EP-16(R)); Newberry Contention 3C(5) (EP-16T) and
Sholly Contention 8I(B)(3) (EP-17(A)(3));

D. Post Evacuation Support

ANGRY Contention IIIC(13) (EP-6(G)) and Newberry Contention York
Plan 31 (EP-14(E));

E. Funding for Emergency Response and Adequacy of Municipal Resources

Newberry Contention York Plan 33 (EP-14(GG)).

A. Protective Action Decisions

Q.4. Newberry York Plan 34 (EP14-HH) states:

The York County Plan has no provision in its population calculations for periods of time during the day when most people are working and outside of the area, during the day when there may be an increase in population because of industries located within the areas, or during the summer periods when many individuals may be on vacation or there would be an influx of individuals coming into the area to vacation. Without that type of population differential tables, it is Intervenor's contention that the Plan is deficient.

Newberry York Plan 37 (EP14-KK) states:

The York County Plan contains no time sequence for the removal of the exposed at-risk population. There is only assumption that there would be adequate time in which to remove all individuals; however, there is no estimate as to the number of hours that would be required to effect a selective evacuation or a general evacuation. Moreover, there is attached to the York County Plan an estimate of the number of vehicles per hour that could be handled by various major arteries and access roads; however, there appears to be a conflict in the estimates in that urban roads with parking are estimated to handle at least 1,700 cars per hour whereas major arteries could only handle 1,300 per hour and it is submitted that such a gross distortion renders the Plan deficient. Furthermore, there is absolutely no hard-core statistical data to back up the calculations relied upon in the York County plan.

Newberry York Plan 39 (EP14-MM) states:

The York County Plan does not state how many businesses are located in risk areas and what the population of those businesses are during working hours. Without this information, it would be impossible to determine the number of

hours that would be required to effect a general evacuation in the event one was ordered. Therefore, it is Intervenor's position that the Plan remains defective.

Do the York County Plans have population calculations based on time of day to incorporate work force fluctuations and based on time of year to incorporate fluctuations of population due to vacation and vacationers?

A. At present York County population figures are based on resident population only.

Q.5. Is this a sufficient population calculation to produce adequate planning?

A. It is sufficient to determine the estimated need for mass care, the best location for reception centers, and the best routes for evacuation. It is not sufficient to produce an evacuation time estimate study as called for in NUREG-0654, standard J-8 and Appendix 4. Also, based on the size of the nonresident work force, special measures may be needed to evacuate or to shelter them. It should be recognized that there is no large recreation park or amusement center in the plume exposure pathway EPZ areas of York County; therefore, seasonal population fluctuations should be minimal. Also, work force population groups are highly mobile in that they commute to and from work each day.

Q.6. What study has been conducted to date, site specific to TMI, which recognizes the work force or vacation populations?

A. Wilbur Smith Associates have produced an evacuation study for FEMA site specific to TMI. Col. O. K. Henderson, former Director of PEMA,

has provided conservative evacuation-time estimates. These estimates are weather and time of day related. The licensee has completed an evacuation time estimate study which is to meet NUREG-0654 Appendix 4 criteria and take into account these population groups. It is FEMA's intention to review this study. This study became available on March 12, 1981, and we have not had the opportunity to review it at the time of preparation of this testimony.

Q.7. What is the explanation of the apparent conflict in the York County Plan between urban roads estimated to carry 1,700 cars per hour and major arteries carrying only 1,300 cars per hour?

A. The present evacuation plans are a product of state level and county level input. The State in its testimony provides the following as an explanation of the differences in traffic capacity: "In the York County Plan the reference to major arteries is listed under 'Rural Roads' with a 12-foot wide lane, while under 'Urban Roads' is listed a 30-foot wide, one-way road with parking. It appears logical that the wider one-way road would carry greater traffic capacity." This appears to be a reasonable explanation of the apparent conflict.

Q.8. Does FEMA consider York County Plans adequate in this area of planning?

A. An evacuation time estimate study which proves out the evacuation routes planned and which accounts for transients is required before FEMA will consider York County Plans adequate.

Q.9. Newberry York Plan 40 (EP14-NN) states:

As a general overall comment, evacuation routes as set forth are not wind-dependent, and therefore, in the event of an evacuation, wind direction is a factor that would be required to be taken into consideration in order to formulate an effective evacuation plan. The Plan as set forth does not provide for this factor and, as such, persons evacuating the evacuation areas may be directed into a potentially more hazardous situation in the manner in which they are routed.

What are the requirements with regard to accounting for wind direction in developing evacuation routes?

A. NUREG-0654, Appendix 4 does not require that wind direction be considered in determination of evacuation routes. However, NUREG-0654 Planning Standard J-10 provides that wind direction will be considered in determining appropriate protective measures. BRP will consider wind direction and speed in its choice of protective actions. In the TMI area it was shown that during the TMI-2 incident wind direction shifted frequently. Therefore, the State has planned the best and fastest routes to get the people out, and it is BRPs job to determine when it is dose-effective to do so.

Q.10 Newberry Dauphin Plan 14 (EP16-N) states, in part:

Finally, the Plan seems to assume that the best of all atmospheric and weather conditions would exist at the time of the evacuation. What would take place in the event of a snowstorm and how would that affect the evacuation? What would be done in order to clear the roads? These are all questions that have to be considered and are necessary to be considered in a total evacuation plan and the location and placement of staging areas.

Newberry Dauphin Plan 16 (EP16-P) states:

The Dauphin County Plan as set forth does not provide for differentiation of time of day or seasons or weather conditions at the time of the evacuation. There is no sensitivity analysis as to these factors, and the Plan is based upon an assumption of best-case analysis. Therefore, it is Intervenor's position that without taking these factors into consideration, the Plan remains deficient as concerns the time needed to effect an evacuation.

Will adverse conditions that could affect evacuation be accounted for in protective section decisionmaking?

- A. NUREG-0654 Planning Standard J.10.M requires that a variety of factors be considered before any protective actions are recommended. This decision-making process and evaluation is the responsibility of the Bureau of Radiation Protection and PEMA.

During periods of meteorological or other impediments to evacuation, it is expected that responsible officials will consider alternatives and implement the best protective action in the circumstances.

- Q. 11. What are your views on the need for a sensitivity analysis on evacuation?

- A. FEMA believes that such a need exists and that an evacuation time estimate study should account for such variables as adverse weather conditions. NUREG-0654 specifies that an evacuation time estimate study accounting for adverse conditions is to be produced. A study which purports to satisfy NUREG-0654 criteria has been produced by the licensee although we have not had the opportunity to evaluate that study.

B. Public Warning and Emergency Instructions

Q.12. Newberry York Plan 3 (EP-14(C)) states, in part:

This section of the York County Plan is deficient in that it depends upon the York County Chamber of Commerce to notify and pass on the general evacuation information to business and industry. There is no assurance that the Chamber of Commerce has the necessary manpower, equipment, and training to pass on such information to the general public. For example, does the York County Chamber of Commerce possess necessary trunk lines to advise all industry within an affected area? What happens in the event that telephone communications are jammed or overloaded and that notification of industries cannot be effected by the York County Chamber of Commerce? Furthermore, does the York County Chamber of Commerce and all industry within the possible affected area have radio communication capabilities?

Is the York County Chamber of Commerce the primary means for notifying business and industry within York County?

A. No. The primary means of warning is the outdoor warning system and Emergency Broadcast System. To insure that business and the general public are aware of such warning and notification, outdoor sirens will be used to direct that the listener turn on radio and television for emergency instruction. York County, through its Chamber of Commerce, is recommending that business and industry purchase a weather radio as an additional means of receiving warning. This system is to be activated by PEMA. York County will educate business and industry on the need for commercial radio or television as a means for receipt of official county notification and information via the EBS after warning is received.

Q.13. Does York County depend upon the Chamber of Commerce to provide emergency information to business and industry?

A. No. Emergency information on protective actions and conditions at the TMI-1 facility are to be provided by York County through the EBS. However, the York County Chamber of Commerce is used in the York County Emergency Response Plan. Their role as seen by FEMA is to provide a telephone fan-out service, supplementary to EBS, for business and industry. Provision of this added notification will further insure sufficient lead time and follow-up on public notification.

Q.14. What communications facilities does the York County Chamber of Commerce have to perform this mission?

A. The York County Chamber of Commerce service is dependent upon commercial telephones. This service, which is necessary at the present time only because siren coverage is inadequate, will be redundant when the siren coverage is expanded to meet NUREG-0654 (E and Appendix 3) standards. As has been stated, FEMA considers commercial telephone adequate for notification of Emergency Response personnel and therefore, would consider such a fanout service from the York County Chamber of Commerce adequate as back-up to the public notification system (siren and EBS) when it is installed. Business and industry within the York County plume exposure EPZ would receive primary notification through public notification systems. At present, FEMA considers the time required to alert business and industry and other segments of the general public inadequate because of the current lack of siren coverage. The most effective delivery means

available at this time is through a combination of outdoor warning signal and EBS. FEMA does not, at this time, recommend establishment of a business and industry radio system or dedicated telephone system. Absence of such systems is not a deficiency. The current deficiency resides in the overall adequacy of the Public Warning Delivery System as described in the Plan. The licensee is in the process of enhancing the notification system in accordance with the NRC requirements.

Q.15. Newberry York Plan 3 (EP14-C) states, in part:

The York County Plan in Section VI, Subsection (C) provides that posting of evacuation maps and semi-annual distribution of evacuation routes in local newspapers will be accomplished. It is submitted that there is no set designation of the responsibility for the effecting of this part of the Plan and it is Intervenor's contention that unless the Plan directs and places responsibility upon someone to effect this part of the Plan, the Plan is defective.

Who is responsible for pre-incident distribution of Public Information material which provides evacuation maps and instructions for the public?

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A. The Commonwealth's Plan Annex E, Section ~~IX~~ (g) and (h) provides that pre-incident public information distribution is a Risk County responsibility, with technical assistance to be provided PEMA. The Commonwealth's Plan Annex E, Appendix 15 to the State Disaster Operations Plan provides that the Governor's Press Secretary will establish policies and procedures for a public education and information program, to be implemented by Commonwealth agencies. Posting of radiological emergency protection information, including evacuation routes, is not yet provided for in the York County Plan. Public education on radiological emergency protection matters for residents and transients will be accomplished through a

coordination of the Commonwealth's and County public information programs. The York County Emergency Coordinator has distributed brochures outlining evacuation routes and procedures.

Q.16. What is the timing of the Public Information Program?

A. Site specific brochures have been printed for each Risk County within the plume EPZ. In York County, distribution has been made through the York Emergency Management Agency. The York Daily Record recently carried an article forecasting this distribution and identifying the County EMA/York County Emergency Management Director as the county official responsible for public education relating to radiological emergency preparedness. The York Dispatch, on Thursday, December 11, 1980, published the planned evacuation routes and selected essential information from the York County radiological emergency preparedness brochure. PEMA and other State agencies are preparing input for the Commonwealth's Public Information Program, shown in the Commonwealth's Plan as Annex E, Appendix 15. The Commonwealth and County public information programs will provide for redistribution of brochures annually to continue throughout the life of the plant.

Q.17. Is the projected program adequate to meet NUREG-0654 standards?

A. The State level programs, which will supplement the County programs, are under development and have not been implemented. However, progress is being made toward development of an adequate program. The projected

utilization of public television, commercial radio and television, newspaper, facility mailing, inclusion in public school curriculum as well as the distribution of handout materials appears thorough and, if completed, should be adequate to insure compliance with NUREG-0654 Planning Standard G with respect to the permanent population. FEMA will monitor State and local programs to insure that the programs are carried out. Deficiencies, if found, will be reported to the Commonwealth. Any significant deficiency found by FEMA during plant operation will be reported to the NRC.

Q.18. Newberry York Plan 15 (EP14-0) states:

Annex C of the York County Plan is deficient in that its total concept of operations is based upon tone-coded siren control and that nowhere in the Plan is it stated that all individuals are within hearing distance of the sirens located within a 20-mile radius of the TMI nuclear plant. Moreover, the Plan provides as a back-up or supplementary system to the siren system that police and fire vehicles would travel throughout the communities and again it is raised that the townships, boroughs, and municipalities located within the 20-mile radius of the TMI nuclear facility do not have the necessary commitments of manpower to effect such a plan. Therefore, it is Intervenor's position that the York County Plan remains deficient.

Will the required Siren System have coverage of 20-miles?

A. The system being designed in accordance with NUREG-0654 Planning Standard E-6, Appendix 3, and 10 CFR 50, will provide for sirens within the plume exposure pathway EPZ of about 10-miles.

Design of the system to meet this criteria will be such as to provide sufficient coverage to reduce need for supplementary notification methods to a minimum. Until the system is supplemented, we cannot ascertain its

adequacy nor the quantitative need for supplementary notification. At that time, procedures for supplementary notification, if any, will be required.

Q.19. Newberry York Plan 19 (EP14-T) states:

Appendix I of the York County Plan regarding warning is deficient in that it assumes that local fire companies will be able to alert all members of a rural community by direct notification such as knocking on doors. There is absolutely no conceivable way in which individual direct notification can be made in Newberry Township because of the number of residents versus the number of volunteer firemen and it is submitted that the same conditions exist in all local municipalities located within the 20-mile radius of the TMI Nuclear Facility. Therefore, until and unless a system is designed that can adequately insure that a substantial majority of the population can be notified of an incident at TMI, the Plan is deficient.

Is York County warning capability adequate?

A. At present, although the estimated time to accomplish such warning has not been determined, it is thought that the warning portion of the public notification system is inadequate to cover the area needed. This has resulted in an impractical reliance on emergency service personnel to provide public notification.

Q.20. How is this to be corrected?

A. The licensee is developing a public notification system to meet the public notification standards of NUREG-0654. The coverage of the plume EPZ by an outdoor siren system is designed to exceed the standards set out in Appendix 3 of NUREG-0654 and, as such would not require reliance

on emergency service personnel to provide supplementary alerting within the plume EPZ. Upon installation and testing of licensee's alert and notification system, FEMA will provide NRC with an evaluation of the system's capabilities and advise parties of the need for corrective action.

Q.21. What area will this system serve?

A. As set out in NUREG-0654, Appendix 3, the system shall serve the plume exposure EPZ. This area is less than the 20-mile coverage mentioned by the Intervenor. Detailed planning beyond the established plume exposure EPZ exceeds current standards and is not, at this time, considered necessary.

Q.22. Newberry York Plan 24 (EP14-Y) states:

Annex N, Subsection VII, Subsection G provides for certain duties and responsibilities for a County Director and these duties and responsibilities conflict directly with those of the Emergency Management Coordinator. Specifically, this section provides that the County Director shall provide appropriate notice of information received and emergency actions taken and proposed to the York County Police and Fire Departments, other echelons and emergency operational chains, and local news media for emergency public information and news announcements, whereas, Appendix II provides that the Public Information Officer is responsible for the issuance of official information, advice and instructions from the county to the public. This conflict renders the Plan deficient.

Do the duties and responsibilities for the York County Director conflict with those of the Emergency Management Coordinator?

A. In York County, the York County Director and the York County Emergency Management Coordinator are the same person. The use of the two titles is

a result of plan modification. Since the two titles used in the Plan refer to a single position, no conflict is presented by differing responsibility assignments to each title, so long as the titles continue to be assigned to one person. For the sake of clarity, FEMA recommends deletion of one title.

Q.23. Does a conflict exist between the York County Director and the York County Public Information Officer (PIO)?

A. No. The announcements which the York County Director/Coordinator will provide to the participating EBS Network will be prepared statements from the York County Plan. The PIO, as the designated spokesperson for York County, is to provide official information, advice and instructions to the public. The issuance of EBS warning notifications by the County Director/Coordinator does not conflict with the PIO's responsibility to prepare and issue emergency information and instructions through non-EBS media sources.

Q.24. Newberry Dauphin Plan 5 (EP16-E) states:

Appendix 5 of the Dauphin County Plan provides that alert warnings will be initiated through siren activation. Again, this part of the Plan makes a broad base assumption that the populace within the county can hear the sirens at all locations and it is Intervenor's position that this is not true. Therefore, until and unless a sufficient number of sirens are placed throughout the county area at locations that will ensure that the total populace of the county is within hearing distance of the sirens, the Plan will remain deficient.

Must all of Dauphin County be covered by a ~~separate~~ ^{siren} alert system?

- A. No. A warning system sufficient to notify the general public within the plume exposure EPZ is required by NRC Regulation to be in operation on or before July 1, 1981. NUREG-0654 reflects the planning standard for such a system in Planning Standard E and Appendix 3. The plume exposure EPZ for TMI-1 does not encompass all of Dauphin County.

Q.25. What is the present siren coverage for Dauphin County?

- A. Present siren coverage based on a Civil Preparedness Program status report is estimated at 70% of Dauphin County's population. As previously noted, the license is undertaking installation of a siren alert system designed to provide 100% coverage of the plume exposure EPZ, including those areas of Dauphin County within the plume EPZ.

C. Implementation of Protective Actions

(i) Communications

Q.26. Angry III C-9 (EP6-C) states:

There is no assurance of the operability of county-local government communications links on a 24 hour basis, as required by N.0654 Sec. F1(a) and PA SDOP Sec. IX (B) (1)(f).

Are the County Government communication links manned 24 hours a day?

- A. Yes. The County EOC's in the five risk counties (Cumberland, Dauphin, Lancaster, Lebanon, and York) are these counties' emergency services dispatching centers. The 911 emergency services and county dispatching

are colocated with the EOC communication centers of all five counties. These are manned 24 hours a day. It is these locations that the State Duty Officer (PEMA) or the State Operation Officer (PEMA), the Licensor (in the General Emergency classification), and Dauphin County or PEMA (if telephone service is disrupted), will contact in initiating the TMI-1 Warning and Notification System. The present County Warning Systems can be centrally activated from the EOCs.

Q.27. Newberry York Plan 4 (EP14-D) states:

Section VI, Subsection (d)(1) provides that, upon notification from PEMA, the County Director will assemble and consult with appropriate members of the county staff and elected officials. There does not seem to be included in the Plan any means in which to contact the local elected officials, unless it is the assumption that these officials would be contacted by telephone. It is Intervenor's contention that, in the event of an emergency situation at Three Mile Island, once the public has any notice or indication that something has occurred at TMI, that the telephone lines will become overloaded and that incoming calls to local officials will not be able to be effected. Moreover, the Plan does not indicate where local officials will assemble, how they will know where to assemble, and when to assemble and thus the Plan is still deemed to be deficient.

What elected officials will be contacted and assembled by the County Director.

A. The elected officials referred to in this section of the York County Plan are the three York County Commissioners.

Q.28 How will these officials be contacted?

A. These officials will be contacted by telephones.

Q.29. What are your views as to the adequacy of this method of contacting these officials?

A. It is FEMA's view that telephone communication should be adequate because of the timing of the calls. These officials will receive telephonic communication as part of the initial governmental notification process before notification of the public. There is no reason to believe that at this period telephone systems will be overloaded.

Q.30 How will these elected officials know where and when to assemble if this is not set out in the York County Plan?

A. Those officials are designated members of the York County emergency response organization and have prearranged assignments to assemble at the York County Courthouse which is the location of the York County EOC.

Q.31. Newberry York Plan 16-1 (EP14-P) states:

Annex D, Section V, provides that the concept of operation will be effected by the regular communications staff augmented by "qualified volunteers" as required. The Plan also indicated that amateur radio will be relied upon in the event of an incident at TMI nuclear facility. There is no assurance that any amateur radio operators have agreed to participate in such an operation or that each school district has had an operator assigned to it to coordinate the utilization of school buses. Moreover, there is no definition of who is a

qualified volunteer in the event that volunteers are required to be used by the communications staff. Finally, the concept of operations in this section provides that RACES would provide interim communications at the Hanover site until full communications capability could be restored. It is Intervenor's position that the Hanover site must be placed in an immediate ready condition in order to effectively serve as an alternate site for emergency operations control. It is intervenor's position that until and unless the Hanover site is placed in a ready condition, that the Plan remains deficient. Furthermore, Subsection VI of this particular section provides that the common carrier system within the Emergency Operations Center is the 911 system, of which 49 out of 79 emergency telephone trunk lines are committed. Furthermore, 6 of the lines are standby rumor-control lines, leaving 24 emergency telephone trunk lines for those areas not contained within the 911 system. The Newberry Township, Fairview Township, Goldsborough and Lewisberry areas are without 911 service. It is Intervenor's contention that, in the event of an incident at the TMI nuclear facility, the telephone grid system would become so overloaded during such an incident that the making of a phone call to the remaining 24 committed lines at the Emergency Operations Center would be difficult if not impossible. Therefore, it is claimed that this part of the Plan also is deficient in that there are not enough emergency trunk lines available for all residents within the 20-mile radius zone of TMI with a special emphasis on those areas in York County, which are closest to the nuclear power facility.

What communication volunteers are planned for in the York County Plan?

- A. The York County Plan Annex D, Section V, reflects that qualified volunteers will augment the regular communication staff, as required. The York County RACES Inc. is an organized group of radio operators, with radio amateur licenses. During an emergency, RACES members will work with and augment York County Emergency Management Coordinators to provide a volunteer communication service to include use of their own equipment, and their time as communication operators.

- Q.32. What assurances are there that York County RACES Inc. has agreed to provide the communication services which are relied upon?

A. At this time, there is no formal assurance from RACES. A Letter of Agreement as specified in NUREG-0654 Standard A, criterion 3, should be provided from York County RACES, Inc. FEMA has been informed by the York County Emergency Coordinator that such a Letter of Agreement will be obtained to formalize this arrangement.

Q.33. Should the Hanover site be maintained in a ready condition to effectively serve as an alternate site for emergency operation control?

A. There is no requirement for the establishment of an alternate county EOC and therefore, there is no requirement for the Hanover site to be maintained as an alternate EOC. The reason for this conclusion is fully addressed in our testimony of February 23, 1981 on Newberry Contention York Plan 5 (EP14-E).

Q.34. What is the common carrier (telephone) capability in the York County EOC?

A. Section VI of Annex D to the York County Plan provides that there are 79 trunk lines entering the EOC; 49 of these service the 911 system and enter from all sections of York County. Six of these lines can be used as standby rumor control lines and operated during emergency situations. The other trunk lines are for the County emergency response personnel manning the EOCs.

Q.35. If the telephone systems are jammed due to excessive use, are the telephone lines into the EOC adequate?

A. Specific dedicated circuits assist in this situation, and are in place and operational from the County EOC to the EBS station and are in place (to be activated in the event of an emergency) between the State and the EOCs in the five risk counties. It is not required that there be sufficient emergency trunk lines available for use by all residents within 20 miles. Emergency notification within the EPZ will be provided by licensee's early warning sirens, followed by EBS transmissions. Telephone notification of large segments of the general public is not anticipated.

Q.36. Newberry Dauphin Plan 3 (EP16-C) states:

Appendix 3, Annex E of the Dauphin County Plan indicates that approximately 65 people will be notified in the event of an emergency. It indicates that notification of these people will be by radio whenever possible and then by telephone. Nowhere in the Plan is it indicated that the individuals listed have radios which are compatible with that of the County EOC. Moreover, there's no indication that the frequencies to be used for communicating with these individuals would be free of any outside disturbance. Therefore, until and unless it is indicated in the County Plan that these individuals have compatible radio equipment and that frequencies are being used that are relatively free from any other type of traffic, it is Intervenor's position that the Plan remains defective.

Are radios in the possession of key personnel compatible with those of the EOC?

A. Yes. Key personnel have access to two-way radios which are tuned to the County Direction and Control frequency. (See testimony in response to Newberry Dauphin Plan Contention 6 (EP-16F)).

Q.37. Is the ~~x~~ frequency compatability of this equipment?

A. Yes. This equipment was purchased for use on the county wide Direction and Control Net which is designed to operate on a frequency of 46.56 MHz.

Q.38 Should there be substantial outside disturbance on this radio network?

A. No. This is a dedicated local government radio frequency assigned to Dauphin County and not available under FCC rules for any other use; consequently outside disturbance on this radio network is precluded.

Q.39. Newberry Dauphin Plan 6 (EP-16F) states:

Appendix 6 of Annex E of the Dauphin County Plan provides that the American Red Cross, military unit assignments, fire and ambulance units, and police units will be assigned various frequencies for radio operations, and will have various radio equipment at their disposal. Nowhere in the Plan is it indicated that there is an existence presently of the equipment necessary to operate on the indicated frequencies or that if the equipment is presently available, that it is being maintained. Moreover, the Plan as written indicated that the police only have two frequencies on which to operate in the event of an emergency. Furthermore, fire, ambulance, Red Cross and military units will all share the same frequency, and it is submitted that in the event of an emergency, the traffic on those those frequencies will cancel effective communication among all of the groups. Therefore, until and unless it is stated that each of these units has its own frequency for operation, and that there are sufficient number of frequencies in order to ensure effective operations, the Plan is deficient. Moreover, until and unless the Plan indicates that there is an existence of compatible equipment in order to effect this part of the Plan, and that there is a responsibility for maintenance of the equipment, it is Intervenor's position that the Plan remains inadequate.

Does the dual use of frequencies by different resource groups cancel the effectiveness of radio communications?

A. No. The County dispatchers maintain net control on all the radio frequencies assigned in the Dauphin Plan. They control and allow for proper use of radios. Diminished effectiveness generally depends upon the number of persons using the frequency, rather than the number of organizations using the frequency. Although separate frequencies would definitely enhance communications, it is not a requirement. Dauphin County maintains a totally separate frequency for Emergency Management/Direction and Control. Dauphin County provides a separate administrative frequency for the sole purpose of Direction and Control of the County Emergency Management personnel as follows:

- Three County commissioners each have a portable radio.
- CD Director, Assistant CD Director, Communication Officer, and Deputy County Director each have a portable, a mobile and a remote radio;
- RADEF Officer, RACES Officer, Situation Analysis Officer, Medical Officer, and all Local CD (EMA) Directors, have a portable and mobile radio;
- The Transportation Officer, Police representative, and fire representative, each have a mobile radio;
- The Mass Care Director has a portable, and a remote radio; and the County Engineer has a remote radio.

This provides communication to approximately 56 Emergency Response Personnel. In addition to this network, the County ambulance and fire companies utilize 4 additional frequencies, and the police utilize 5 additional frequencies.

Q.40. What assurance is there that the necessary radio equipment is in existence and is maintained?

A. This equipment is in routine use by county emergency services and is maintained as part of regularly utilized emergency services. Confirmation of availability and operability of this equipment is provided by communications drills provided for in the State emergency plan.

Q.41 Newberry Dauphin Plan 17 (EP16-Q) states:

The Dauphin County Plan lists only two (2) 911 operators in place in the event of an evacuation. It is submitted that two operators is grossly insufficient when it is taken into consideration that the York County Plan incorporates forty-nine (49) 911 operators in order to deal with an evacuation. Until and unless there is a commitment for more 911 operators to be in place during an emergency, the Dauphin County Plan remains deficient.

How many operators will Dauphin and York Counties have in the event of an evacuation?

A. Dauphin County plans for two ~~900~~⁹¹¹ operators for an unspecified number of 911 lines; York County, with 49 trunk lines, also plans for two 911 operators.

Q.42. Are two 911 operators for each of these counties sufficient during an emergency?

A. Yes. Counties have been directed to set up rumor control centers, which will relieve some of the pressure from 911 operators. Call volume exceeding 911 operator capacity will be transferred to the rumor control centers or other appropriate resources.

(ii) Support Services

Q.43. ANGRY III C-7 (EP6-A) states:

There is inadequate provision in the York County Plan for providing medical services for contaminated individuals, for training persons providing these services, and for transporting radiological victims to medical facilities, all as required by NUREG-0654, Section L.

What are the criteria of NUREG-0654 with regard to county plan provisions for medical services to contaminated persons?

A. NUREG-0654 stipulates that counties are to arrange for local and backup hospital and medical services for individuals exposed to radiation, to assure that persons providing medical services are prepared to handle contaminated individuals and to arrange for transporting victims of radiological accidents to medical support facilities.

Q.44 How does the York County plan compare to these criteria?

A. The York County plan at present makes no provision for local and backup hospital and medical services for individuals exposed to radiation. PEMA has informed York County that its plan should be modified to identify hospitals which have the capability to treat individuals exposed to radiation.

The York County plan does not provide assurance that persons providing medical services are prepared to handle contaminated individuals.

This responsibility is being met, however, under the Commonwealth's plan by the State Department of Health. When the State Department of

Health has carried out its responsibilities in this regard, the requirement will have been satisfied for York County which then should reflect this in its emergency plan and procedures.

The York County plan has provided for the transportation of all persons needing medical aid, including victims of radiological accidents, to medical support facilities, through available ambulances or other vehicles allocated for this purpose.

Q.45. ANGRY III C-8 (EP6-B) states:

Although the Pennsylvania DOP, Section IXB (1)(p), delegates the responsibility for arranging for emergency wrecker and fuel services to risk counties, the York County Plan assigns this responsibility to the Pennsylvania National Guard (Section VIA (7)(c)).

Which agencies are responsible for emergency wrecker and fuel services in the event of an evacuation?

- A. ^{*VIIA(21)c and d and Section VIIA(16)h*}
The Commonwealth's Plan, Section ~~IXA(II)c~~, assigns ^{*support and wrecker support*} fuel distribution ^{*and*} to the Department of Transportation ^{*with*} the National Guard, ~~providing wrecker support~~. The Commonwealth recognizes that initial fuel and wrecker services will, however, be provided by the risk counties.
^{*VII B(1)(g)*}
Therefore, Section ~~IX B(1)(p)~~ of the Commonwealth's Plan suggests that the counties should "select locations for and prepare to provide emergency services to include first aid, wrecker and fuel services."
This approach is consistent with accepted emergency management practices, in that it dictates utilization of local resources to meet initial requirements.

Q.46. ANGRY III C-10 (EP6-D) states:

There are numerous assignments of responsibility to persons and organizations that are not documented by written agreements demonstrating knowledge of and ability to perform assigned roles as required by NUREG-0654, Section A3. The most important of such delegations are:

1. American Red Cross (operation of relocation centers; Annex I).
2. Maryland Department of Health (provision of ambulances and helicopters for hospital evacuations; Annex J).
3. Amateur radio operators (communications with local governmental units and school districts; Annex D, §VE).
4. "State C.D." (50-2 passenger ambulances for evacuation of nursing homes; Annex J., Appendix 2).
5. School Districts (transportation of school children to relocation centers and provision of facilities for such centers; Annex O).
6. York Area Transit Authority (evacuation of nursing home patients, Annex K).
7. State of Maryland (overflow mass care capacity; Annex I, Section IVD).
8. Adams County (relocation center, Annex I).
9. York Chamber of Commerce (notification of business and industry; Section VIA(7)(a)).
10. York County USDA Disaster/Emergency Board (monitoring crop and animal surveillance; Annex R).

Are there written agreements with organizations listed in this contention?

- A. With one exception, there are currently no such written agreements. During review of the County Plan, FEMA was told by the York County Emergency Management Coordinator that documentation of existing agreements between the County and the listed emergency services organizations would be obtained in the near future. The existence of a service relationship

between the parties is not questioned and in an emergency the documentation, or lack thereof, would certainly not govern the assurance of such services to the community. When completed, the documentation will be added to the Plan. At this time, one letter of agreement, namely between York County and the Department of Health and Medical Hygiene of the State of Maryland has been provided to FEMA. Letters of agreement for items 4 and 10 of the contention are not needed and should not be provided because these items speak to responsibilities assigned to State organizations under the State emergency plan and are, therefore, specifically provided for in the State plan.

Q.47. Newberry York Plan 9 (EP14-I) states:

Appendix 2, Section III, Subsection (g) of the York County Plan indicates that the Area Agency on Aging should develop a system to identify the homebound and invalid personnel that require special transportation group. Until and unless the Area Agency on Aging is directed to effect such a system, it is Intervenor's position that the York County Plan is deficient because, without such listing, there would be no way in which local communities could be assured that all invalids and homebound persons would be removed from an evacuation area.

What special planning has been established to provide for homebounds and invalids during an evacuation of York County?

A. NUREG-0654 Planning Standard J, Criterion 10d requires procedures for protecting those persons whose mobility may be impaired. The responsibility to prepare a list of such persons and prepare for their care has been assigned to municipalities and boroughs. These provisions

and procedures are under development and have not been provided for review to FEMA. Consequently, the York County Plan is inadequate in this regard.

Q.48. Newberry York Plan 11 (EP14-K) states:

Appendix 3, Annex A, Situation Analysis Group, of the York County Plan provides that it will support the State Bureau of Radiological Health with available personnel and equipment and that in the event of a general evacuation on request it will support fire and mass care operations with monitors for decontaminations. Nowhere in the Plan does it state that the Situation Analysis Group will have the necessary equipment required in order to support the various bureaus and fire and mass care operations with the necessary equipment monitors for decontamination operations.

What arrangements have been made to assure that emergency response units have sufficient radiological monitoring equipment to perform assigned functions?

A. Based on our review, we have been unable to identify any arrangements in this regard. FEMA agrees with the intervenor's contention that the Plan should reference the equipment necessary to perform the monitoring service. FEMA believes that equipment should be located with emergency response organizations that will be utilizing the equipment. The State was informed by FEMA of this deficiency and is working with the County involved to correct it.

Q.49. Newberry York Plan 12 (EP14-L) states:

Appendix 3, Annex A, providing for police operations in a selective evacuation and a general evacuation provides that

the police would support and assist in notification and, on request, that police operations provide fire and police support for traffic control and security. It is submitted that support and assist in notification and support for traffic control and security are mutually exclusive operations. It is intervenor's contention that police in local communities cannot be asked to both support traffic control and security and, at the same time, support and assist in the notification of area residents of the impending dangers and evacuation notification in the event of an incident at TMI.

How will police handle notification and security and traffic control in the event of a selective or general evacuation?

- A. The Licensee is installing a prompt notification system for the plume EPZ which should reduce to a minimum the need for police to provide notification services. Police officers thereby released from notification assignments through use of the prompt notification system should be available for security and traffic control. Additionally, it should be noted that notification assignments may be given to other than law enforcement personnel. Such complementary service personnel do, in fact, exist.

Q.50. Newberry York Plan 18 (EP14-S) states:

Annex G of the York County Plan is deficient in that it assumes that local fire companies will have sufficient manpower to effect emergency operations procedures as outlined in the Plan. As is previously been pointed out by the Intervenor, there is usually insufficient staffing of the individual fire companies to assure that all residents in rural areas would be notified of an incident at the TMI nuclear facility because of the number of miles of road located in each township. The Plan also contains a concept that the county distribute radiological monitoring equipment to individual fire companies to be monitored by the fire company personnel. There is no indication in the Plan that volunteer firemen have been trained to operate such equipment

and there is no assurance that such equipment is presently located within the county for distribution. Until these deficiencies are resolved, it is Intervenor's position that the Plan is deficient.

Does adequate staffing exist to assure that all residents in rural areas would be notified of an incident?

A By July 1, 1981, the Licensee will be required, under the NRC's emergency planning regulations, to have an operable warning system for the plume EPZ. It is expected that most residents will be notified through this warning system. Fire personnel may be used to supplement the mechanical system. It is not expected that large numbers of fire personnel will be required to conduct notification operations.

Q.51. Do adequate resources exist to provide radiological monitoring equipment and training for each fire company in York County?

A. The County has not yet provided an inventory of radiological monitoring equipment to be used, and its distribution in support of operations for decontamination of people or vehicles. Fire companies, as stated in the York County Plan, provide the available monitoring service. As to the training of firemen in the use of such monitoring equipment, the York County Plan indeed does not provide for such training. However, the State of Pennsylvania training program does provide for training firemen in the use of such equipment. Training programs have existed in the past, administered by the US DOT and the Defense Civil Preparedness Agency, to instruct personnel in dealing with radiological emergencies.

In all likelihood, many York County firemen have been trained at these courses.

Q.52 Newberry York Plan 21 (EP14-V) states:

Annex K of the York County Plan provides for the transportation of various individuals out of the evacuation area. Intervenor's contribution in this area is that there is no direct stated coordination of plans between YATA, local school districts, the Baltimore Transit System, and the Pennsylvania and Maryland Railroad Company. The Plan as set forth in the concept of operation indicates that total coordination of the system will be left to the county Transportation Coordinator who will establish a system, but it doesn't identify when he will establish a system to identify priority use of transportation resources. Moreover, it states that any buses without missions would report to the Vo-Tech school located in York and be dispatched from that point. There is no provision for the refueling for any of the buses in any particular area and there is no guarantee that school buses driven by volunteer drivers would be willing to return to a risk area. Furthermore, the transportation area of the York County Plan has totally disregarded the initial five hour plan which had been included in the initial evacuation plan. Nowhere in this Plan does it appear that transportation could be effected in any set time period and, therefore, this section again, by implication, contains the realistic admission that, regardless of whether school was in session, the evacuation plan would appear inoperable and unrealistic. Until and unless the Plan shows exact designation of buses, commitment by bus companies to react within set stated times and letters of agreement between the surrounding school districts and the York County Commissioners with regard to assurances of delivery of local school buses, the Plan will remain deficient.

What coordination will be provided to assure transportation utilization during an evacuation?

A. The York County Plan assigns to the York County Transportation Coordinator (TC) the responsibility for development of a system to utilize transportation resources during an evacuation. The

plan for the system has not yet been provided to FEMA for review; however, the County Plan does list resources available to the TC in the event of an emergency.

Q.53 How will the evacuation buses be manned and refueled?

A. The system to be developed by the TC should establish a method for insuring manning and refueling of evacuation buses. During initial refueling operations, local fuel facilities, i.e., county fuel pumps and local gasoline stations should be utilized. For extended operations, the TC should consider fuel support from the State and National Guard resources. Bus drivers can be expected to return to the risk area as needed, to accomplish their assigned missions.

Q.54 Are specific assignments and time limits necessary for effective operation of the transportation section of the County Plan?

A. While specific assignments would clarify operational priorities, actual emergency conditions will probably require a distribution of transportation assets to meet the specific circumstances. General response assignments for buses involved in the evacuation of school children are an explicit part of the plan based on the schools and school districts they now support.

Q.55 Must letters of agreement between the county and local bus companies and school districts providing evacuation buses be included in the Plan?

- A. Agreements with private bus companies are indeed necessary. It is anticipated that during a general evacuation however, available vehicles would be used to assist the evacuation, regardless of the status of existing documented agreements.

Q.56 Newberry York Plan 22 (EP14-W) states:

Annex L of the York County Plan provides for resource requirements which, it is assumed, would set forth what would be required to set the whole evacuation plan of York County into operation with regard to manpower, equipment, and other resources. The Plan as of this date remains under development in this area and until and unless the Plan is completely finalized, it is Intervenor's contention that the Plan is deficient.

How will personnel and equipment resources necessary to implement the evacuation of York county residents within the plume exposure EPZ be activated?

- A. The York County EOC will be activated to respond to radiological emergencies. The emergency response personnel designated in the York Emergency Plan should deploy previously identified resources. These personnel have the authority to manage the resources. Unmet resources will be requested through PEMA, at the State EOC.

Q.57 Newberry York Plan 23 (EP14-X) states:

Annex M of the York County Plan providing for military support states that the Pennsylvania National Guard will enter into active duty upon an order of the Governor. Moreover, they will respond to any individual local political subdivision's needs upon request of the local political subdivision for aid. The Plan does not state with any specificity whether the Guardsmen will be protected by radiation-proof equipment, under whose orders and directions

they will remain during their encampment in a local political subdivision, and when they will arrive in the local political subdivision after requested to do so. Until and unless these deficiencies are rectified, it is Intervenor's contention that the Emergency Plan is deficient.

Will the National Guardsmen be protected by radiation-proof equipment?

A. No. Standard military clothing including fatigue uniform, field jacket, poncho, helmet liner, and M17 protective mask as well as other standard issue, will be worn by Guardsmen.

Q.58 Under whose orders and direction will they remain during encampment in a local political subdivision?

A. National Guardsmen will remain under the command and control of the guardsmen's chain of command.

Q.59 When, after it is requested, will they arrive in the political subdivision for encampment?

A. Upon coordination between PEMA and the National Guard, the units most accessible will be dispatched to the subdivision. However, precise times for the arrival of National Guard units is not known.

Q.60 Newberry York Plan 29 (EP14-CC) states:

Nowhere in the York County Plan does there exist a catalog of the tow trucks available for use in York County. Until and unless a catalog of the tow trucks available for use is attached to the Plan, the Plan remains deficient.

How will the County determine tow truck availability during an emergency?

- A. State and local law enforcement agencies utilize tow truck services for motor vehicle accidents in their jurisdictions on a daily basis. This experience will be relied on to contact and utilize available tow truck services in an emergency. A separate catalog of tow trucks is neither required nor necessary.

Q.61 Newberry York Plan 35 (EP14-11) states:

The York County Plan provides that the American Red Cross would provide for distribution of certain foodstuffs, clothing, and other personal articles. There is no mention in the Plan whether the Red Cross would have at its disposal the estimated foodstuffs required to feed the evacuated population, the cots needed for the sheltered area and the evacuation centers. Until and unless the Plan contains the statement that these items are in storage and available for distribution, it is Intervenor's position that the Plan remains deficient.

Must the Red Cross have evacuation support materials in storage in the TMI area?

- A. NUREG-0654, Planning Standard J, Criterion 12 states that relocation centers should have capabilities to register and monitor evacuees within 12 hours of the incident; however, this criterion does not require that mass care facilities be established. The State Plan provides criteria for mass care centers and assigns to the Red Cross the mass care support mission, in conjunction with the host county. It has been FEMA's experience that Red Cross/County emergency management agencies

have provided adequate operations of mass care facilities during actual disasters, either through onhand or borrowed resources. Thus, it is our view that the lack of a statement in the York County plan on the availability of mass care resources is not a deficiency.

Q. 62 Newberry Dauphin Plan 7 (EP16-G) states:

Appendix 8, Attachment 8-1, indicates that there are local pickup points for individuals who are without transportation. There is no indication within the Emergency Plan as now drafted that there will be police protection for people waiting at the pickup points in order to insure security. Moreover, the pickup points as listed do not ensure that individuals who assemble at these points will be sheltered for their protection under some type of cover. Until or unless it is assured that there will be police protection provided and that sheltering will be provided, the Plan is deemed inadequate.

What security and shelter will be provided to persons assembled at the pickup points?

A. NUREG-0654, Planning Standard J, Criterion 10g and Appendix 4 requires evacuation plans to consider the moving of people who do not have transportation resources. This criterion does not call for police protection for these individuals. It has been FEMA's experience with mass evacuation that personal security has not been a significant problem.

There is no requirement or planning guidance specifying that short term shelter or cover is to be provided for persons at pick-up points. Therefore, we do not view the lack of provision of short- term cover at all pick-up points as a deficiency in the emergency plan.

Q.63 Newberry Dauphin Plan 8 (EP16-H) states:

Appendix 8, Attachment 8-2 of the Dauphin County Plan provides that local municipalities shall provide one personal lead vehicle to the EOC Reception Area from the staging Area. The problem with this particular part of the Plan is that there is no designation of who will be the person to lead vehicles to the EOC Reception Area. Moreover, there is a candid admission that there is the chance that municipalities will hijack vehicles intended for other communities. Until and unless there is some type of security provided for incoming and outgoing units, the Plan shall remain deficient. Moreover, there is no provision in this Plan to provide for refueling of the incoming buses and ambulances and until and unless there is some indication of how refueling is going to take place, there is the risk that incoming buses and ambulances would run out of fuel and be rendered useless.

Should local municipalities designate specific individuals to be lead vehicle operators for the EOC reception area?

- A. No, lead vehicle operators should be designated from personnel available to the municipalities at the time of an accident, with consideration to the need for other services. The failure to pre-designate lead vehicle operators is not a deficiency.

Q.63 Is hijacking of emergency vehicles considered a serious threat?

- A. No. Except for war-time situations, FEMA is unaware of any disaster in which local governments hijacked the transport capability; i.e., vehicles of other governments, to provide for evacuation or emergency services.

Q.64 How will the county provide for refueling buses and ambulances used in an emergency?

- A. Refueling will be conducted through local resources, county pumps and private gasoline stations, with support from the state and National Guard on an as needed basis. Lack of explicit provisions in the plan for refueling is not a deficiency.

Q.65 Newberry 3b-12 (EP14-00) states:

Because of the experiences of the past, even the limited evacuation of pregnant women and children under five years of age left many of the areas surrounding the Three Mile Island Nuclear Power Station deserted and open to looting without proper security. The assumption that the National Guard would, in the event of an evacuation, be called up by the Governor, is one that is a void in the evacuation plan and the National Guard is not called up or does not respond to the Governor's request because its members are busily evacuating their own families.

What is the potential for looting during an evacuation?

- A. Annex F of the York County Plan calls for the Pennsylvania State Police, York County Sheriff and local police departments to exercise their normal responsibility with respect to law enforcement.

It has been FEMA's experience that in mass evacuation situations, looting has not been a significant problem. Furthermore, it is FEMA's expectation that there will be significant law enforcement personnel and reinforcements to insure that law and order is maintained in the evacuated area.

Q.66 Newberry Dauphin 15 (EP16-0) states:

The Dauphin County Plan indicates that it has a total need of approximately 600 ambulances for the evacuation of all members of the exposed populace and indicates only 45 are available. The Plan also indicates that it could obtain an additional 226 ambulances from outside the county, still leaving a shortfall of approximately 300 ambulances. There is no solution to the problem indicated in the Plan.

Is there in fact an ambulance shortfall in the Dauphin County Plan?

- A. The Dauphin County plan provides at page 8-11 that 600 ambulances will be required for a 20-mile evacuation. Since the plume EPZ used for TMI is approximately 10 miles, the requirements for ambulance availability for Dauphin County can not be precisely determined based upon the current plan. However, in a general evacuation, ambulances will be drawn from the 327 ambulances identified by county planners on page 8-11 of the county plan. By utilization of these resources and conversion of standard vehicles into make-shift ambulances, sufficient ambulances should be available to evacuate severely incapacitated residents.

Q.67 Newberry York Plan 3 (EP14-C) in part states:

The Plan in subsection (c) also assumes that homebounds and invalids will be able to be transmitted by means of ambulance and bus and that individuals with no transportation could request the same through local fire companies for bus pickup. The capabilities to effect such a plan within Newberry Township are nonexistent. For example, Newberry Township has two ambulances that could be placed into service, assuming that a volunteer would operate the same. Local communities surrounding the Newberry Township area include Goldsboro Borough and Lewisberry Borough, each borough having an ambulance to effect evacuation of their homebounds and invalids. It is submitted that within the 34 mile square

area that encompasses Newberry Township and the boroughs of Lewisberry, Goldsboro, and York Haven that four (4) ambulances would not be sufficient to evacuate homebounds and invalids. Moreover, transportation through local fire companies will be impossible, as local fire chiefs have indicated that they could not guarantee that any personnel could or would effect such an evacuation service. Finally, it is submitted that if local volunteer fire companies cannot assure manpower staffing during a general emergency situation, that they cannot be again counted upon to provide transportation to designated areas for bus pickup for those individuals who are within transportation.

What are the considerations in York County planning to provide for homebounds and invalids who have no means of transportation and cannot get to a mass transit pick-up point?

- A. The York County planning places this responsibility on the municipal/ borough/township level government. The EMA director or coordinator of each jurisdiction is to prepare lists of persons in this category in preparation for their care. The York County Public Information Brochure which was distributed provides, in the section entitled "How to Get There" that persons physically unable to leave their homes are to contact their Local emergency Management Coordinators and "report any disabling conditions now to your Local Coordinator." The Local Coordinator is to determine the transportation requirements and identify those which cannot be met from local resources. The county, in Annex L, "Resource Requirement," provides its concept of operation to meet these local unmet resources and to establish a control receiving point at York Vo-Tech School for out of county resources to be applied against local needs.

The municipal plans which are to meet this requirement have not been provided to FEMA for review. It is expected that this planning as well as any other where municipalities have been assigned specific responsibility to meet planning standards in NUREG-0654 will be included in the upgraded county plans which are to be submitted to FEMA by mid-April 1981.

Q.68 Does the York County Plan in subsection (c) conflict with the information in Annex P Example of Local Plan and Annex L, Resource Requirement?

A. The present York County Plan received by FEMA on December 10, 1980, and dated September 3, 1980 does not have a subsection (c) which contains this information. However, in Annex G, Fire Service, under II. Responsibility, E. "Fire companies in risk area are to establish/maintain a system of information of invalid/ambulatory/handicapped persons in their area of responsibility." Although this appears to be a dual assignment of the same responsibility, it must be recognized that local fire companies are essential elements of the EMA Coordinator resources and are fully represented on his staff. If this demand, based on the number of the homebounds, is greater than the resources available, there must be a provision in the municipal planning to provide the required resources. FEMA cannot ascertain from the planning to date whether demands beyond resources have been identified or whether supplemental resources have been provided for.

Q.69 ECNP2-28 (EP-10) states:

Appendix D of the (State) Plan contains reference to the need for the decontamination of radiologically contaminated

individuals (p. 16) but does not provide any information as to how many people may be contaminated, the kind and degree of contamination expected or to be planned for, or the number of facilities and medical personnel appropriately trained in decontamination and radiation injury treatment techniques which may be necessary.

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What are the requirements and provisions for caring for radiologically contaminated persons?

A.

NUREG-0654 does not require projections as to how many people may be contaminated or the kind and degree of contamination that may be experienced. The contamination which might be experienced would be limited to beta and gamma emitters. In this case, the local mass care center would notify the State BRP which would then advise concerning the procedures to be followed in dealing with contaminated members of the public. BRP procedures are to be followed for decontamination of personnel. The medical facilities capable of treating contaminated persons are identified in the State Plan in SDOH, Appendix 9. Personnel at these medical facilities are trained in decontamination and radioactive injury treatment techniques. The state recognizes that if large numbers of the general population would require decontamination, state resources would be inadequate. In this case, the state would request assistance from the U.S. Department of Energy. The procedures for decontamination at mass care centers have been developed for inclusion into county plans, and will be reflected in revised county plans to be submitted by mid-April.

(iii) Chain of Command

Q.70 Newberry Dauphin Plan 9-1 (EP16-I) states:

Appendix 9 of the Dauphin County Plan regarding police policy and procedures during relocation indicates that when evacuation is ordered, units will proceed to pre-designated stations. The Plan does not indicate where the pre-designated stations are located and how the chain of command will operate in the event of relocation of local police departments and their interaction with National Guard units arriving to provide additional manpower to local departments. Until and unless a definite chain of command is stated and the relationship between civil police departments and the National Guard regarding chain of command is documented, it is Intervenor's position that the Plan is deficient.

What is the policy and procedure for relocation of law enforcement agencies during an evacuation?

A. Certain police units in Dauphin County are to relocate to specified sites. The units to relocate and their predetermined relocation sites are provided on page 9-1 of Appendix 9, Annex E, Dauphin County Plan. In point of fact, the relocation stations are pre-designated in the Dauphin County plan.

Q.71 What affect will relocation have on the command and control of police agencies and their interaction with the National Guard units?

A. The local units will remain under the charge of the ranking officer of each Department. This is provided on page 9-1 also. The National Guard chain of command will not change. (See Testimony in response to Newberry Contention York Plan 8 (EP14-H)).

Q.72 Newberry York Plan 8 (EP14-H) states:

Appendix 2, Section III, of the York County Plan provides that the Assistant Director of Police Operations is responsible for the overall management of law and order, traffic control and security. In the event the National Guard is ordered to assist local communities, it is questionable whether the Assistant Director of Police Operations would be in a position to direct orders to a military organization as is assumed he would be in the York County Plan. There seems to be no coordination between the National Guard chain of command and the chain of command in the operations group in Annex 2, Section III, and therefore, it is Intervenor's position that the Plan is deficient in that there is no stated area of responsibility concerning police operations, vis-a-vis the National Guard.

Similarly, Newberry York Plan 17 (EP14-R) states:

Annex F, Section II of the Plan is inconsistent with Appendix 2, Subsection III, Subsection A in that the Assistant Director of Police Operations is stated to be responsible for all management of law and order, traffic control and security, whereas Annex F provides that the Pennsylvania State Police is responsible for coordinating law enforcement and traffic control and the Pennsylvania National Guard is responsible for providing security for the evacuated areas. Intervenor is of the position that until and unless the order of command is sufficiently, adequately, and clearly stated, there lies the possibility in the Plan for mass chaos and confusion with regard to who is responsible for giving direct orders to the Pennsylvania State Police, the sheriff in local police departments and the Pennsylvania National Guard in the event that there is an incident at the TMI nuclear facility.

Does the Assistant Director of Police direct the National Guard and/or the State police while they are assisting in traffic control and security in York County?

- A. No. State legislation provides that state level augmentation shall remain under the operational control of the Department, agency, or office furnishing personnel. (P.L. 1332 of 7504 (f)).

Q.73 What coordination exists between the Assistant Director of Police Operations and law enforcement personnel?

A. The operational interface for these units will be at field level and the command interface will be at State level in the State EOC.

Q.74 Is there conflict in these chains of command and the role assigned to the Assistant Director of Personnel Operations?

A. The National Guard, the State Police and the Local Police have worked together on many national disasters and during the TMI-Unit 2 accident. They are familiar with the interactions which must take place within their separate chains of command. We are aware of no evidence of conflict during these previous instances. The Assistant Director of Police Operation's role is to provide overall management of law and order, traffic control and security within York County.

(iv) Staffing

Q.75 Newberry York Plan 38 (EP14-LL) states:

The York County Plan contains a thin staffing of all emergency coordinators and does not list any substitutes in the event that an emergency coordinator is ill, on vacation, or otherwise indisposed. Without substitutes or standby emergency coordinators, the Plan is defective.

Similarly, Newberry Dauphin Plan 2 (EP16-B) states:

Appendix 2 of Annex E of the Dauphin County Plan lists Dauphin County Local Emergency Preparedness Directors and

Coordinators; however, those coordinators do not list any substitutes in the event of an emergency. If these individuals cannot be reached at the telephone numbers listed, it would lead to confusion within their particular areas of responsibility. Therefore, until and unless substitutes are listed as local emergency coordinators, it is Intervenor's position that the Plan is deficient.

Should the counties provide for substitute emergency management coordinators if primary emergency management coordinators are unavailable?

- A. Yes. FEMA has not yet been provided with planning which will provide for substitution of emergency management coordinators by other suitable contacts. It is our understanding that in the case of an absence of a key person, direct contact will be made by the Emergency Operation Center, with the emergency service affected by the absence. We believe that these county plans should be modified to identify and provide for substitute emergency management coordinators.

(v.) Protection of Property/Livestock

Q.76 Aamodt Contention 5 (EP-2) states:

Is it contended that present evacuation plans do not provide for care and/or relocation of livestock. It is further contended that such provision should be made before restart of TMI-1.

Does present emergency planning provide for care and/or evacuation of livestock?

A. Present planning does not provide for evacuation of livestock. It does provide for care for livestock. The State Department of Agriculture Appendix 7 to Annex E of the Commonwealth Disaster Operations Plan provides information on how to shelter and care for livestock in the ~~event~~^{event} of a fixed nuclear facility incident. It is stated in this appendix that the evacuation of livestock will not be called for and should, in fact, not be undertaken. The farmer is considered a member of the general public in the application of protective actions and not an emergency worker. They are not, as presently planned, to receive thyroid blocking agents, personnel monitoring, or to be provided with communication support equipment. The County Emergency Management Coordinator has prepared preprinted messages for an EBS announcement, directing the farmers to shelter their livestock when it is appropriate to do so. As to evacuation of livestock, the NRC's emergency planning regulations do not require measures for the protection of property, including livestock, and, in fact, are directed to the protection of the public health and safety with protection of property left to ad hoc measures. The absence of plans for evacuation of livestock is not a defect.

Q.77 Newberry York Plan 27 (EP14-BB) states:

Annex R of the York County Plan does not provide for any evacuation of domestic farm animals and until and unless the plan does provide for a plan of evacuation, the Plan remains deficient. Domestic farm animals cannot be left for any period of time without human care and attention and, therefore, it is assumed that farmers who have such large investments in live-stock will not leave their investment unattended and, thus, they are left at risk. Moreover, the agricultural part of the York County Plan provides that the County Emergency Management Agency Director will charge and distribute dosimeters for agricultural personnel who are required to enter the

designated risk area but does not state who will provide the dosimeters and who will interpret the dosimeter readings. Until and unless those two facets of the York County Plan are remedied, it is intervenor's contention that the Plan remains deficient.

What protective actions will be taken to protect farmers and livestock in the plume EPZ?

- A. The thrust of emergency planning under NUREG-0654 is the protection of people, not property. Property investment protective actions will be taken on an ad hoc basis, depending upon the severity of the occurrence and risk to human life. At present, it is planned by all jurisdictions that livestock will be sheltered, not relocated or evacuated. Farmers are considered as members of the general public, without special status. They will be instructed to evacuate; however, depending on conditions, they may be allowed to return to their livestock for maintenance purposes. Travel within the plume exposure EPZ for livestock care will be controlled by local officials, based on local conditions.

Q.78 Will dosimetry be provided for agricultural personnel who will be required to enter the risk area?

- A. Self reading dosimeters and dose record cards will be provided by the county emergency management agency to agricultural emergency workers (not farmers) who may be required to survey the risk area to determine the effects of the accident on the ingestion pathway. No such dosimetry will be provided to farmers.

(v) Other

Q.79 ANGRY III-B(f) (EP5-C) states:

In order to assure proper execution by emergency response personnel of duties assigned to them the Commonwealth should adopt and apply to all levels of the emergency response network the principle that such personnel should "not have more important commitments to families within the immediate area of TMI" (Department of Health Plan, Appendix I, p. 5)

What is the likelihood that emergency response personnel will abandon their duties in an emergency to be with their families?

A. Based on previous disaster experience, it is FEMA's view that emergency workers will perform their functions in situations where their families may be endangered by the emergency.

Q.80 What is the potential for emergency service mission failure resulting from loss of emergency workers as a consequence of family commitments?

A. The degree of mission failure is directly related to the recognition by emergency workers that by performing their mission they reduce the risk to their own families as well as to others. This recognition of importance is reinforced by training, periodic drills, and exercises. FEMA has in its library a Technical Report Number 77, entitled a Perspective on Disaster Planning, dated December 1972, which was produced for the Defense Civil Preparedness Agency. It concludes that emergency workers respond to the requirements of their assignment regardless of personnel demands.

Q.81 ANGRY III C(12) (EP6-F) states:

York County "Evacuation Plan" is seriously deficient in the following primary respect: The preparation of a "list of homebounds and invalids" and a plan for their evacuation (Annex J) and satisfaction of unmet "resource requirements" (Annex L) should be accomplished prior to TMI-1 restart.

Should there be planning for the protection of those persons with limited mobility?

- A. Yes. NUREG-0654 Planning Standard J, Criterion 10d requires procedures for protecting those persons whose mobility may be impaired. The responsibility to prepare a list of such persons and plan for their care has been assigned to municipalities and boroughs. These provisions and procedures are under development and have not been provided for review. Where a political subdivision is delegated specific responsibilities by the County, the planning to meet that responsibility will be reviewed by FEMA. Based on recent discussions with the York County EMA Director, these plans are not ready for review at this time. FEMA would expect to review such plans when it reviews the upgraded county plan due by April 15, 1981.

Present provisions in York County as provided in the County Public Information Brochure under the Paragraph "How to Get There" instructs persons who are unable to leave their home to contact their local Emergency Management Coordinator. These persons would be cared for on a case-by-case basis by local officials.

Q.82 Newberry York Plan 20 (EP14-U) states:

Annex H of the York County Plan provides in its general concept of operations that evacuation routings would be inherently dependent upon climatic conditions, time factors involved, etc. The Plan also provides that residents would be evacuated on major interstates and state highways. There is no mention as to the condition of the access roads to these major arteries and it is submitted that evacuation generally is dependent upon climatic conditions and the conditions of the access roads within the individual townships and local communities. Access roads within Newberry Township vary from a 20 to a 26 foot width and it is Intervenor's contention that in the event of an evacuation, traffic flow on these access roads could quickly become terminated as a result of the vehicles running out of gas or being involved in auto accidents for which there would be no way in which to remedy the situation. Moreover, in ice and snow conditions, it is submitted that these access roads which are located in generally hilly areas would be generally impassable and; therefore, there would be no access to the evacuation routes. Until and unless the evacuation Plan provides for a means to assure that access roads will be passible during a general evacuation, it is submitted that the Plan is deficient.

What consideration is there of the use and condition of access roads in the York County Plan?

- A. The York County Plan provides evacuation routes for the different jurisdictions within the EPZ. These routes are assigned to groups based on their access to these routes. The county has made the assumption in its planning that the access roads to these roads are in such a condition that they are useable.

Q.83 What provisions have been made for access to the evacuation routes in Newberry Township?

A. People in Newberry Township north of Newberry Town are to use I-83 North to the Pennsylvania Turnpike then west to Route 15 then south on Route 15. People in Newberry Township south of Newberry Town are to use I-83 South. Individuals residing in a municipality ^{where} ~~with~~ more than one evacuation route is identified should select the most appropriate one for their household. Interstate 83 runs north and south through the center of Newberry Township and is a major interstate highway with two lanes in both directions.

Q.84 What consideration has been and should be applied to the changing widths of access roads and road blockage caused by disabled vehicles?

A. NUREG-0651 Planning Standard J, Criterion 10 specifies development of procedures that will allow for choice of recommended action based upon plant conditions, direct inhalation exposure, climatic conditions and evacuation time estimates. BRP has written procedures to meet these criteria. Evacuation time estimates are still required. The licensee has completed an evacuation time estimate study of the evacuation plan. Impassable roads which can not be cleared or changing widths of road which may affect traffic flow adversely are considered in this evacuation study. Based on this evacuation time estimate study, identified problem areas should be considered in upgrading the evacuation plans. Resources, including tow trucks and fuel supply, will be applied as required. The state provides augmenting resources if local resources prove inadequate. Newberry Township residents will be familiar with their road system and the municipality

is to receive augmentation of such state resources as required through the emergency management channels to effect traffic control.

Q.85 Newberry York Plan 26 (EP14-AA) states:

Annex O of the Emergency Plan is deficient in that the concept of operations division does not require mandatory preparation of local plans for emergency notification of bus drivers and the organization of mobilization of transportation necessary to meet the needs of evacuating their student populations. Moreover, the Plan does not include any direction or plan to the local school superintendents as to rerouting their buses for general evacuation of local residents. For example, in an emergency, is a principal of Fishing Creek Elementary School to send a bus to the Vo-tech School for rerouting while area residents wait for transportation? Until and unless there is some type of generalized plan for each school district as to the rerouting of school vehicles not in use for removal of school population, the Plan will remain deficient.

What planning has been done for school evacuation and bus rerouting?

A. Although the York County Plan does not mandate local planning for notification of bus drivers and the organization of transportation to evacuate school children, it is a responsibility assigned to each Risk County. NUREG-0654 Planning Standard F requires procedures for alerting and activating personnel in each response organization. The State Department of Education is responsible for advising each School District Supervisor within the Plume Exposure EPZ on guidance for development of school evacuation plans. These Superintendents are to coordinate with the County EMA Coordinator in the development of these Plans. PEMA has advised York County that a listing of supporting plans for schools and localities is necessary. FEMA has

been advised that these plans are under development and not ready for service in York County. Therefore FEMA's view, at this time, is that additional planning on the issues of school evacuation and bus rerouting should be included in the York County Plan.

Q.86 Newberry Dauphin Plan 9-2 (EP16-J) states in part:

Appendix 12 of Annex E of the Dauphin County Plan provides that during school hours, upon receipt of a condition yellow alert, school districts shall begin returning school students to their homes. Moreover, the Plan continues, that in the event parents are not home, children shall be returned to one pickup point as listed in the Appendix. There is an exception to this rule indicated in the Plan. It is Intervenor's contention that the Plan is deficient because it first of all allows the busing of children during a condition yellow situation. It is Intervenor's contention that a much more sensible approach to this problem would be to bus all the children to a pre-designated area outside of the 20-mile EPZ and allow parents in an orderly fashion to pick their children up if a condition yellow alert does not change. There is a potential, as the Plan is now written, that in the middle of busing children home during a condition yellow situation that the situation could degrade to a condition red situation and there would be no means of notifying the bus drivers of the change in situation and the change in the school policy plan under a condition red emergency situation.

What are your views as to the provisions of the Dauphin County Plan with regard to transporting children home during a condition yellow (Alert)?

- A. The Dauphin County Plan indicates that during a condition yellow (Alert) school children may be bused home as a precautionary measure. Under such a situation (Alert) there will not be actual or projected levels of radiation offsite which would require protective action. Thus, measures providing for sending children home are conservative, precautionary measures. If accident conditions subsequently degrade,

requiring other protective measures, the fact that children are to be bused home should be announced over the radio and television station so that parents or guardians can make arrangements or travel home to supervise their children. School plans describing the actions available to bus drivers and what they should do if the accident conditions worsen during the course of driving children home have not been completed.

FEMA believes that during an Alert or condition yellow, a more advisable course of actions would be to not deliver children home, but to increase local readiness to take protective actions by alerting school bus drivers and providing information and guidance to response personnel.

Q.87 Newberry Dauphin Plan 18 (EP16-R) states:

The Dauphin County Plan as presently written envisions mass transportation vehicles to assemble at two staging areas. Upon arriving at the staging areas, the vehicles would then be dispatched to various areas to be led by community leaders. It is submitted that such a plan without the provision of security being placed on the buses and mass transportation vehicles does not ensure that said vehicles will be able to carry out their intended functions. It is submitted that more staging areas would be required in order to effectively deal with mass transportation and until and unless those local regionalized areas are stated in an emergency plan, all plans will remain deficient.

Does NUREG-0654 call for additional security at staging areas for vehicles to be used as augmenting resources?

A. No, and FEMA is unaware of any situation during mass evacuations which have been conducted where emergency vehicle security was a

serious problem. The County plan calls for such vehicles to be convoyed into the local area from the staging area. Also the staging area, according to the Dauphin County Plan, will be staffed with an overall coordinator, communications, incoming traffic coordinator, outgoing traffic coordinator (maps provided to each vehicle), three traffic control assistants and fuel coordinator. Thus, there will be government presence at these staging areas with the above listed staff and communications. During an evacuation there will be an increased staffing of police forces in the area to perform traffic control and security functions. Therefore, we see no reason to require extra security at the staging areas.

Q.88 Are more staging areas required in order to effectively deal with mass transportation?

A. PEMA, in its guidance, recommended two or more staging areas; Dauphin County planned for two. One is located at City Island, Harrisburg for incoming units from the West and North and the other is at Hershey Arena Parking lot for incoming units from the East and West. This appears to be adequate.

Q.89 Newberry 3c(5) (EP16-T) states:

Moreover, the plan does not envision the method of notifying school and CAT bus drivers and assumes that all drivers will respond in an emergency situation. Moreover, it doesn't indicate anywhere that the CAT bus drivers will know what is expected of them in an emergency situation and know where they are going and how to get to the appointed emergency staging areas. This is a contingency that can be planned for in advance, should be specifically set out in a plan,

and thus, the absence of such specificity in the plan renders the plan inadequate.

What does the Dauphin Plan indicate as to the method of notifying school and CAT bus drivers and does it assume that all drivers will respond in an emergency situation?

- A. Appendix 3 to ~~Append~~^{Annex} E, Dauphin County Plan provides that the County Transportation Officer is one of the key personnel notified in the event of a radiological emergency. Appendix 8 to Annex E provides a Bus Company/Transit Authority list with telephone numbers for use by the County Transportation Officer in meeting transportation resource requirements. FEMA would recommend additional planning to include in school evacuation planning, early notification of bus drivers by school officials and district school plans which provide for school bus use from beyond the EPZ. FEMA further recommends that the Transportation Officer be charged with responsibility for notification and activation of the transportation resources planned for in the Dauphin County Plan.

As to the assertion that the plan assumes all such drivers will respond in an emergency, there is ^{no} such assumption in the plan. In any event, as we have indicated before, FEMA has had no experience in previous disasters where there was mission failure as a result of a failure of personnel to perform their function.

Newberry Dauphin Plan 14 (EP16-N) states:

The Dauphin County Plan does not specifically state how the following occurrences would be dealt with in the event of an evacuation:

- (1) Accidents on the highways
- (2) Cars running out of gas
- (3) Generally disabled vehicles
- (4) Individuals who need ambulance service for removal from accidents.

The Plan does not state whether gas stations will be mandatorily required to be open in order to meet the demands of the evacuating public.

How will such occurrences be dealt with in the event an evacuation of a portion of Dauphin County is directed?

- A. Local resources normally applied in these situations are to be applied in the event of an evacuation. The state provides augmenting resources if local resources prove inadequate. As reflected in the Pennsylvania DOP, Annex E, Section ~~III~~ ^{VII A}, 12, the Governor's Energy Council is to provide for emergency fuel allocations to assure adequate fuel availability to support an evacuation, if necessary, in a fixed nuclear facility incident, as was done during the TMI-2 accident.

Q.91 Sholly Contention 8IB(3) states:

Numerous members of the Old Order Amish community reside in relatively close proximity (within 10 miles) of the outer boundary of the licensee's plume Exposure EPZ in Lancaster County. Because the Old Order Amish eschew the use of electricity, telephones, and automobiles, they present

unique problems with respect to warning, communication of protective action advisories, and transportation. These unique problems warrant the special consideration the inclusion of Old Order Amish within the Plume Exposure EPZ would provide.

Should special provisions for warning, communications of protective action advisories, and transportation be established for members of the Old Order Amish community within the plume exposure EPZ?

- A. The unique needs of groups such as those posed by the Old Order Amish Community warrant consideration in radiological response plans. The licensee, State and local governments have the responsibility to ensure that both procedures and facilities exist to meet the special needs of such groups.

Q.92 What special arrangements have been made for notification of and protective actions for members of the Old Order Amish community within the plume Exposure EPZ?

- A. The Commonwealth of Pennsylvania has met with and documented by memorandum that the Mennonite disaster services will accept responsibility for and plan for the needs of the Old Order Amish as well as other related groups in the Plume Exposure EPZ. PEMA's staff duty officer manual in the Mennonite Disaster Service Annex contains the telephone numbers for round the clock contact with both the Mennonite National Director and an alternate. Details of procedures used by the Mennonites or other State and local authorities which address the unique needs of the Amish have not been received or reviewed by

FEMA. It should be noted that, at this time, there has been no formal identification of the number of Old Order Amish located within the plume EPZ.

D. Post Evacuation Support

Q.93 Angry III C(13) (EP6-G) states:

The York County Fairgrounds is an inappropriate location for the agricultural "Information Center" (Annex R, Sec. IV) since it is within the 20-mile distance from the plant to which under the plan's assumptions, a total evacuation may be required. The provision establishing this center fails to provide also for the necessary predetermination by farmers wishing to avail themselves of its services of the nature and timing of the "essential functions" for their farms, the number of persons needed to perform such functions, and the identity of such persons. Dissemination of information concerning this program and the compiling of information provided in response thereto should be accomplished prior to TMI-1 restart.

Is the York County fairground an appropriate location for the agricultural "Information Center"?

- A. Yes. Current county planning provides for an agricultural center at the fairgrounds. The fairgrounds are located beyond the plume EPZ. Moreover, the function and services provided are not a requirement of NUREG-0654. This center is supplemental to those assets already in place at the EOC, which meet the NUREG-0654 requirements for emergency public information dissemination. Because the agricultural "information center" is above and beyond requirements, we believe that no further provision for the center are necessary.

Q.94 Newberry York Plan 31 (EP14-EE) states:

The mass evacuation centers contained in the York County Plan do not state that the centers have auxiliary backup electrical power and heating plants in the event that they are placed into use. It is Intervenor's contention that, without such auxiliary power and heating systems, that the Plan is deficient in that evacuees would arrive either at a darkened or cold evacuation center.

Is it necessary that mass evacuation centers contained in the York County Plan have auxiliary backup electrical power and heating plants, in the event that they are placed into use?

A. No. FEMA testimony of February 23, 1981 on related Newberry Contention Dauphin Plan 11 (EP-16L), addressed this issue. Auxiliary power and heating systems are not required, nor does NUREG 0654 require any provisions for mass care of evacuees. In the event of a power loss in the York County area, mass care evacuation centers will remain open for operation. Alternative heating and electrical utilities will be provided on an as-available basis. Evacuees requiring more than minimal emergency services will be relocated.

Q.95 Newberry York Plan 33 (EP14-GG) states:

The York County Plan does not contain any treasury or source of financing in the event that an emergency is declared and payment to be made. It is a general assumption, apparently on behalf of the Plan, that the county treasury can be invaded by the Commissioners for use during an emergency; however, it is Intervenor's position that a set emergency fund should be in place and stated within the Plan so that there would have to be no indecision as to the legality of withdrawing funds in the event of an emergency situation for ad hoc expenses.

What funds would be available to the York County Commissioners to provide for emergency expenses arising from an evacuation?

- A. The source of funds for payment of emergency expense is beyond the scope of NUREG-0654 coverage. Advice on the legal authority for expenditure of County funds should be obtained from the County Counsel or legal advisor. While it is not unusual for county commissioners to be unaware of the full extent of their authority to commit public funds in an emergency, FEMA is unaware of any situation where this condition resulted in serious injury, suffering or death during a disaster.

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

Docket No. 50-289
(Restart)

February 23, 1981

OUTLINE

TESTIMONY OF FREDERICK J. BATH AND VERNON E. ADLER OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY ON CERTAIN OFFSITE EMERGENCY PLANNING CONTENTIONS

This testimony addresses 27 contentions directed to State and local emergency plans and offsite emergency preparedness.

The testimony is subdivided into the major areas of emergency planning of: (A) Initial Notification of Governmental Units; (B) Protective Action Decisions; (C) Public Warning and Emergency Instructions; (D) Implementation of Protective Actions; (E) Post Evacuation Support; (F) Exercises and Drills; and (G) Audit and Review of Plans insofar as these areas relate to offsite emergency planning and State and local emergency plans.

The provisions of the York County emergency plan with regard to notification of county emergency response personnel are described and it is shown that the means for such notification are acceptable and consistent with emergency planning criteria.

The State's criteria for the selection of protective actions are shown to be consistent with those of the licensee and the State's protective action criteria are shown to be in accord with regulatory guidance. However, a deficiency due to lack of evacuation time estimates prepared in accordance with NUREG-0654 for use in the protective action decision making process is identified. The testimony in this area also addresses the asserted need for special nuclear science education and training for certain county emergency response personnel.

In the area of public warning and emergency instructions, the testimony identifies deficiencies in offsite preparedness with regard to a system and plans for providing prompt notification to the public in the event of an emergency. Siren alerting signals are described and it is shown that the signal scheme to be used in the plume EPZ is acceptable and will not result in confusion to the public. It is also shown that backup power systems for the siren alert system are neither required nor necessary. The Emergency Broadcast Station for York County is identified and it is shown that an alternate EBS is not needed. The State's provisions for providing information to the news media during an emergency are described and shown to be consistent with emergency planning guidance.

The need for alternate county emergency operations centers is addressed as are the Dauphin County plans for providing for hospital patients who may have to be evacuated during an emergency. The matter of the provisions of medical supplies for the treatment of persons exposed to radiation during an emergency is addressed. The use and distribution of thyroid blocking agents is addressed and it is shown that the State's planning is adequate in this regard although local emergency plans should be revised to be made consistent with the State's latest planning. Concerns raised by certain contentions with regard to distribution of thyroid blocking agents to the public are shown to be without merit. The provisions of the State plans with regard to the protective action of sheltering are addressed as are the provisions of the York County plan for the decontamination of vehicles used in evacuation.

Assumptions in emergency plans on the length of time evacuees will remain out of the evacuated area and on the number of evacuees who will require sheltering at mass care centers are addressed and shown to be appropriate. The asserted need for backup power and heating systems at mass care centers is also addressed.

Finally, the asserted need for mandatory paid leave from employment for emergency workers to participate in exercises and drills and the provisions in the Dauphin County plan for maintaining school evacuation plans are addressed.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
METROPOLITAN EDISON COMPANY, <u>ET AL.</u>)	Docket No. 50-289
)	(Restart)
(Three Mile Island Nuclear Station,)	
Unit 1))	

TESTIMONY OF FREDERICK J. BATH AND VERNON E. ADLER
OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY
ON CERTAIN OFFSITE EMERGENCY PLANNING CONTENTIONS

ANGRY CONTENTIONS	IIIB(D)	(EP-5A)
	IIIB(G)(2)	(EP-5D(2))
	IIIB(H)(1),(2),(3),(4),(5)	
	(EP-5E(1),(2),(3),(4),(5))	
	IIIB(J)	(EP-5G)
	IIIC(11)	(EP-6E)

ECNP CONTETIONS	2-36	(EP-12)
	2-38	(EP-13)

NEWBERRY TMI STEERING COMMITTEE CONTENTIONS

York Plan	1	(EP-14A)
	2	(EP-14B)
	3	(EP-14C)
	5	(EP-14E)
	6	(EP-14F)
	7	(EP-14G)
	13	(EP-14M)
	14	(EP-14N)
	25	(EP-14Z)
	30	(EP-14DD)
	32	(EP-14FF)
	36	(EP-14JJ)

DAUPHIN PLAN	1	(EP-16A)
	4	(EP-16D)
	9-2	(EP-16J)
	10	(EP-16K)
	11	(EP-16L)
	13	(EP-16M)
	16	(EP-16P)
	19	(EP-16S)

TESTIMONY OF FREDERICK J. BATH AND VERNON E. ADLER
OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY
ON CERTAIN OFFSITE EMERGENCY PLANNING CONTENTIONS

Q.1 State your name and title.

A. (Mr. Bath) I am Frederick J. Bath, an Emergency Management Specialist for the Federal Emergency Management Agency (FEMA), assigned to FEMA Region III, Philadelphia, Pennsylvania.

(Mr. Adler) I am Vernon E. Adler, Director, Division of Plans and Preparedness for FEMA Region III in Philadelphia, Pennsylvania.

Q.2. Do you have statements of professional qualifications?

A. Yes. Our statements of professional qualifications are attached to this testimony.

Q.3. What involvement have you had with regard to emergency planning for Three Mile Island, Unit 1 (TMI-1)?

A. (Mr. Bath) In my capacity as an Emergency Management Specialist for FEMA, Region III, I have been responsible for the review and evaluation of the Pennsylvania State emergency planning for fixed nuclear facilities (FNF) in general and, in particular, for the review and evaluation of State and local emergency planning for TMI-1. In this regard, I have reviewed and evaluated the fixed nuclear facility planning in the State Disaster Operations Plan (DOP), particularly

Annex E, as well as the emergency plans of Dauphin, York, Lancaster, Lebanon and Cumberland Counties. These plans are in various stages of development. Formal submission for FEMA's official evaluation has not taken place as yet. I am a member of FEMA's Regional Assistance Committee (RAC) which is conducting reviews and evaluations of these plans. This process is pursuant to the FEMA proposed rule (44 CFR Part 350) which will lead to formal plans submitted to FEMA for findings and determinations on the adequacy of offsite emergency planning. As a result of my responsibility in the review of State and local emergency offsite planning for TMI-1, I was directed to answer those contentions in the TMI-1 restart hearing, identified by NRC, requiring FEMA input.

(Mr. Adler) I am Mr. Bath's supervisor and am responsible for directing Mr. Bath in his review and evaluation of offsite emergency planning for TMI-1. This testimony was prepared by Mr. Bath and me or by Mr. Bath under my direction and supervision.

Q.4. What is the purpose of this testimony?

- A. The purpose of this testimony is to address selected contentions in the TMI-1 restart proceeding which can be reasonably answered at this time. State and county emergency plans are currently undergoing revision, modification and upgrading, based on RAC/FEMA comments, as part of the informal review and assistance process. The contentions which we are able to address at this time are categorized in various major emergency planning areas as follows:

- A. Initial Notification of Governmental Units
Newberry Contention York Plan 14 (EP-14N);
- B. Protective Action Decisions
ANGRY Contention IIIB(H)(1), (2), (3) and (4) (EP-5E(1), (2), (3) and (4)); Newberry Contentions York Plan 6 (EP-14F), 7 (EP-14G), and 30 (EP-14DD); Newberry Contention Dauphin Plan 16 (EP-16P);
- C. Public Warning and Emergency Instructions
ANGRY Contention IIIB(G)(2) (EP-5D(2)); ECNP Contention 2-36 (EP-12); Newberry Contentions York Plan 1 (EP-14A), 2 (EP-14B) in part, and 32 (EP-14FF) and Newberry Contention Dauphin Plan 13 (EP-16M);
- D. Implementation of Protective Actions
 - (i) Communications
Newberry Contentions York Plan 5 (EP-14E) and Dauphin Plan 4 (EP-16D);
 - (ii) Support Services
Newberry Contentions York Plan 3 (EP-14C) in part, and 36 (EP-14JJ) and Newberry Contention Dauphin Plan 10 (EP-16K);
 - (iii) Thyroid Blocking
ANGRY Contentions IIIB(D) (EP-5A) and IIIC(11) (EP-6E) and Newberry Contentions York Plan 3 (EP-14C) in part, and 13 (EP-14M);
 - (iv) Other Matters Related to Implementation of Protective Actions
ANGRY Contentions IIIB(H)(5) (EP-5E(5)), and IIIB(J) (EP-5G); Newberry Contentions York Plan 2 (EP-14B) in part, and 25 (EP-14Z), and Newberry Contentions Dauphin Plan 1 (EP-16A), and 19 (EP-16S);
- E. Post Evacuation Support
ECNP Contention 2-38 (EP-13); and Newberry Contention Dauphin Plan 11 (EP-16L);
- F. Exercises and Drills
Newberry Contention York Plan 3 (EP-14C) in part; and
- G. Audit and Review of Plans
Newberry Contention Dauphin Plan 9-2 (EP-16J) in part.

A. Initial Notification of Governmental Units

Q.5. Newberry Contention York Plan 14 (EP-14N) states:

Annex B of the York County Plan indicates that the order of notification from York County is to executive group members and then to local coordinators within the risk

area with priority to those nearest the facility, then to school superintendents and then to Emergency Operations Center staff. Nowhere in the Plan is it indicated how these people would be notified of the impending emergency. Intervenors again raise the issue that in the event of an incident at TMI, members of these organizations should be able to be reached without dependence upon telephone communications. Until and unless it is indicated that these individuals can be contacted without dependence upon telephone communications, the plan is deficient.

What provisions have been made for notifying York County emergency response personnel?

- A. After the York County emergency operations center (24-hour emergency dispatcher) has been notified of the declaration of an emergency at TMI-1, the York County Plan identifies and provides for the notification of all key personnel in the York County emergency response organization who properly are to be contacted in the event of an accident. These key personnel include the Executive Group comprised of the Emergency Management Director/Coordinator, the Operations Group Director, the three County Commissioners and the Public Information Officer. Under the York Plan, the intention appears to be to contact these key personnel concurrently. The persons in this executive group will be those that are first informed prior to other components of the County emergency response organization.

- Q.6. What is FEMA's recommendation with regard to further notifications for emergency response personnel in York County?

- A. FEMA recommends that, after notification of the Executive Group, the County consider notification of the next group of key personnel, namely emergency management coordinators of municipalities and boroughs whose jurisdictions are within the plume exposure pathway emergency planning zone (EPZ). In fact, to this end, the State, through the Pennsylvania Emergency Management Agency (PEMA), asked York County, on December 15, 1980, to modify its procedures to provide a sequential notification list separating the municipal emergency management coordinators within the plume EPZ from those beyond the plume EPZ.

Q.7. What means of notifying key emergency management personnel at the county level may be used?

- A. Under the guidelines of NUREG-0654, Revision 1, Planning Standards E and F, key personnel in the emergency response organization may be notified by telephone and/or radio as a minimum. If there were a rapidly developing accident situation requiring siren activation and activation of the Emergency Broadcast System (EBS), these key personnel would, of course, receive notification in this manner as well.

All emergency response personnel will receive notification at the earliest possible time. The notification should be given to the Executive Group during the first 15 minutes following notification

of the county. In certain cases, this will mean notification concurrent with notification of the public at large.

Q.8. What are the deficiencies in the York County Plan with regard to the means of notifying key personnel in the emergency management organization?

A. Key personnel in the York County emergency management organization will be notified by either telephone or radio. As previously mentioned, these means of notifying emergency response personnel are in accordance with NUREG-0654. Consequently, the York Plan is not deficient in this regard.

B. Protective Action Decisions

Q.9. ANGRY Contention IIIB(H) (EP-5E) states in part:

There is no reasonable assurance that appropriate protective measures will be taken in the event of a nuclear accident with off-site radiological consequences for the following reasons:

1. The Commonwealth's criteria for appropriate protective action choice, as set forth in Sec. VIII of its BORP plan, are inconsistent with those of the licensee (EP, p. 6-13). According to the licensee, evacuation is the appropriate protective action if dose projections approach the lower limits of EPA PAGs. According to BORP this would not be the case unless the upper limits of the PAGs were approached. Although the licensee indicates that sheltering is the appropriate choice for atmospheric releases of short duration, the BORP plan proposes evacuation for "sudden severe accidents". The licensee would not recommend evacuation in the event of a continuous release if "evacuation cannot be well underway prior to plume arrival", while BORP would order an evacuation in such a case regardless of wind speed and warning time.

2. The BORP plan fails to quantify protective action selection criteria such as "time to onset of release ... time required to effect relocation", and the definition of "puff release". Such quantification of criteria is a necessary ingredient in effective planning and is required by N. 0654 Sec. J10(m).
3. The Commonwealth does not comprehend the distinction between "core-melt" and "melt-through" accidents as those terms are employed in NUREG CR-1131.
4. The Commonwealth declines to employ "state-of-the-art" calculational methodology, as set forth in EPA 520/1-78-001B, in turn referenced in N. 0654 at p. 55, n.1(3), in conjunction with hypothetical accident release characteristics to assist it in making appropriate protective action selection.

As to part (1) of this contention, compare the criteria used by the State for protective action decisions to the licensee's protective action criteria for projected doses approaching EPA Protective Action Guides (PAGs), for sheltering, and for evacuation as referenced in the contention.

- A. The State of Pennsylvania is amending its DOP, Appendix 8 to Annex E and numerous implementing procedures in this regard. Under the amended plan, the Bureau of Radiation Protection (BRP) will consider evacuation if projected doses approach or exceed 1 Rem whole body and 5 Rem to an infant thyroid. This is now in full agreement with the provisions of the licensee's emergency plan. Similarly, under the amended State plan, sheltering will be considered when the release time is expected to be short (i.e. a puff release or a release of less than two hours duration). This too is fully consistent with the licensee's plan. Finally, under the amended State plan, evacuation will be considered when evacuation could be well

underway before plume arrival, based on wind speed and travel conditions. Sheltering, on the other hand, will be considered when evacuation could not be well underway prior to expected plume arrival due to short warning time, high wind speeds and/or foul weather. This is also fully consistent with the licensee's plan. In short, the inconsistencies asserted in part (1) of this contention do not exist under the modified State emergency plan.

Q.10. As to part (2) of this contention, what provision is made in the BRP plan for quantifying protective action selection criteria such as the time to onset of release, the time required to effect relocation, and the quantitative definition of a "puff release".

A. Modifications to the State plan have been provided to FEMA which do, in fact, account for the time to the onset of release in the protective action decision-making process. Apart from this, the BRP purposely does not seek to quantify protective action selection criteria. In lieu of such quantification, they provide a framework of philosophies, the collection of off site readings, the interface of PEMA judgment of readiness status, the effects of weather elements on release parameters and the assessment and recommendations of the licensee and, when available, of DOE. The State has demonstrated a concern that quantifying selection criteria would or could lead to decisions made without full consideration of all such elements. The lack of further quantification in this regard will not prevent prompt and adequate protective action decisions with one exception.

Evacuation time estimates prepared in accordance with the guidance of NUREG-0654 are not yet available or a part of the State's protective action decision-making process. Such time estimates should be useful in determining whether evacuation should be ordered in particular circumstances. Thus, the sole reservation we have regarding quantification of the State's protective action criteria is that a useable time-motion study of evacuation, performed in accordance with the guidelines of NUREG-0654, has not been completed and resulting evacuation time estimates are not available. We understand that the licensee will shortly complete an evacuation time estimate study. The results of that study should be made available to, and be utilized by, the State as part of its protective action decision-making process.

Q.11. What is your view as to the State's understanding of the distinction between "core-melt" and "melt-through" accidents as those terms are employed in NUREG CR-1131?

A. The State's useage of these terms in its Plan makes it clear that the State is fully aware of the proper useage of these terms. NUREG CR-1131 provides that there are two categories of core melts - those resulting in an atmospheric release by some mechanism and those involving a melt-through. The State Plan precisely reflects each of these. As set forth in Section VIII of BRP Appendix 8, Annex E of the State DOP as revised in January of 1981, evacuation will be considered as a protective action option when, among other things, a

core melt is underway which involves or is expected to involve a loss of containment integrity by melt-through or by direct release to the atmosphere by some other mechanism.

Q.12. As to part (4) of this contention, what is EPA 520/1-75-001B?

A. EPA 520/1-75-001B, "Protective Action Evaluation Part II, Evacuation and Sheltering as Protective Actions Against Nuclear Accidents Involving Gaseous Releases", is one of three reports cited on page 64 of NUREG-0654, Revision 1 as a document that "may be considered in determining the protection afforded" by local residential units or shelters for the sheltering option of protective actions. Use of this document is not mandatory.

Q.13. What is the significance of the State's failure to use EPA 520/1-75-001B in making protective action decisions involving sheltering?

A. As mentioned previously, use of this document for decisions on sheltering is not required; it merely provides some guidance which emergency planners may utilize if they desire. Based on our review of BRP Appendix 8, Annex E of the State DOP, as revised in January 1981, and in discussion with BRP, it was found that in accident assessment and protective action decisions, BRP will follow the thought process as shown in Figure 14A of this document. The State's failure to apply mathematically the formal methodology in

EPA 520/1-75-001B is not a deficiency.

0.14. Newberry Contention York Plan 30 (EP-14DD) states:

The Evacuation Plan contained in the York County Plan does not contain any sensitivity analysis or differentiation between the time of day, the seasons of the year or weather conditions at the time of the evacuation. In light of these deficiencies, it is Intervenor's contention that the Plan is deficient.

Similarly, Newberry Contention Dauphin Plan 16 (EP-16P) states:

The Dauphin County Plan as set forth does not provide for differentiation of time of day or seasons or weather conditions at the time of evacuation. There is no sensitivity analysis as to these factors, and the Plan is based upon an assumption of best-case analysis. Therefore, it is Intervenor's position that without taking these factors into consideration, the Plan remains deficient as concerns the time needed to effect an evacuation.

Whose responsibility is it to make decisions on, and order, protective actions?

- A. NUREG-0654 Planning Standard Criterion J-10-M specifies that the procedures for determining the protective actions to be taken during a radiological emergency are a State responsibility and are not required in the County Plans. In point of fact, for TMI-1, BRP has the responsibility for developing and maintaining these procedures. Thus, the absence from the York and Dauphin County Plans of evacuation time estimates accounting for time of day and weather conditions at the time of evacuation is not a defect in the County Plans.

Q.15. What is the status of present State protective action criteria with regard to accounting for time of day and weather conditions for evacuation.

A. At the present time, the State does not have available for utilization in its protective action decision-making process evacuation time estimates prepared in accordance with the guidance of NUREG-0654 and accounting for time of day and weather conditions at the time of evacuation. Such an evacuation time estimate study is currently being prepared by the licensee. Upon its completion, the results should be provided to the State for use in its protective action decision-making.

Under the State's present Emergency Action Options Philosophy in BRP Appendix B, as revised in January 1981, the State does take into account the advisability of evacuation based on the ability to evacuate. The interface for this decision would be between PEMA (coordinating other State agencies) and BRP and would be based on the best available information at the time of the decision. Pending completion of an adequate evacuation time estimate study, it is the State's plan to direct emergency resources to correct such impediments to evacuation as may exist (e.g. snow plowing evacuation routes) and to continually assess the situation so that the status of preparedness to effect protective action is a known factor and not just a scientific guess. Provisions for and plans to carry out the command and control interface between State (PEMA) and County

Emergency Operations Centers demonstrate an ability to accomplish this.

Q.16. Newberry Contention York Plan 6 (EP-14F) states:

Appendix 2, Section I, Subsection B of the York County Plan provides that the Emergency Management Coordinator will insure that briefings are presented to the Commissioner and he will interpret displays and technical reports for the Commissioners. There is no statement in the Plan that the person occupying the position of Emergency Management Coordinator will have educational requirements sufficient to insure that he will be able to interpret any displays of technical reports for the Commissioners. It is Intervenor's contention that unless the Emergency Management Coordinator is required to have an expertise in the area of nuclear science, he will be unable to sufficiently and accurately interpret the displays and technical reports for the Commissioners and thus may leave the Commissioners who ultimately are responsible for the safety and welfare of the people of York County uninformed or misinformed of actual events taking place at TMI.

Similarly, Newberry Contention York Plan 7 (EP-14G) states:

Appendix 2, Section II, of the York County Plan provides that the Situation Analysis Group will receive reports of plant safety degradation, potential/actual radioactive release and radiation intensity. Again, there are no job requirements for persons who sit on a Situation Analysis Group to qualify them to make such reviews and, therefore, again, without qualified people to sit on such a group, their advice to the county's commissioners may be misinformed and unenlightened which could again then lead to chaos and confusion.

What requirements are there with regard to local emergency response organizations having radiological hazards assessment capability?

- A. The NUREG-0654 evaluation criteria require that an adequate offsite radiological assessment capability should exist offsite. This function may be performed by either the State or local emergency

organizations. The current Pennsylvania Emergency Plan provides that technical support and technical assessment functions will be conducted by PEMA/BRP. The State (PEMA) will then recommend protective actions and provide the counties with these recommendations and any information necessary to effectively implement such protective actions. Thus, a technical radiological assessment capability is not necessary at the county level, since the technical functions are provided by the State. Accordingly, neither York County nor any other county in the plume exposure EPZ for TMI-1 need have technical assessment capability.

Q.17. What is the purpose of the Accident Assessment Group (Situation Analysis Group) in the York County Plan?

A. That group will record conditions and maintain plots of radioactive releases based on information provided by PEMA/BRP and the licensee. It need not perform accident assessments to make protective action decisions as those functions are to be performed by the State. Accordingly, PEMA has suggested that York County revise its plan to make it clear that the county will rely on PEMA for accident assessment.

Q.18. What technical training for county officials is required?

A. In order to assure that accident assessment information and protective action advice to be communicated by the State to the counties

can be understood without technical background, PEMA is preparing a training program for county coordinators related to protective actions and describing what is expected from all parties in response to a radiological emergency at a nuclear facility. Since BRP through PEMA will interpret the reports on plant safety degradation, potential/actual radioactive release and radiation intensity, in coordination with the licensee, highly specialized training should not be required in support of the York County Radiological Emergency Plan. Of course, since the State will undertake the accident assessment, and since the State planning provides that the State will interpret and communicate technical information to the counties, training as a nuclear scientist and nuclear science capability is not necessary for the county coordinators.

C. Public Warning and Emergency Instructions

Q.19. ANGRY Contention IIIB(G)(2) (EP-5D(2)) states:

The Commonwealth's DOP fails to identify the time required to alert the public within the plume EPZ under present circumstances as required by the aforementioned provision of N. 0654. Such estimates as the Commonwealth has provided elsewhere are founded upon a totally inadequate data base and are thus not credible. Although the Pa. DOP App. 13, Sec. IID states that "the primary means of emergency warning is outdoor siren systems", the York County plan reveals that less than 1/2 of the population in York County within 10 miles of TMI are capable of being warned by sirens (Annex C). Information as to the time required for implementation of "back-up" notification measures of mobile "public address systems" and "knocking on doors" (Annex G, App. 1) is to be provided in local emergency plans which do not as yet exist.

Similarly, Newberry Contention York Plan 1 (EP-14A) states:

Section VI, Concept of Operations, Subsection 7(a) is deficient in that there is an assumption that notification by siren can be heard throughout Newberry Township and surrounding communities. It is questionable at best whether this is, in fact, true in that at least in the York County Plan there is an assumption of one Civil Defense siren being in place in Newberry Township which does not exist. Oversights such as this may still exist within the Emergency Plan drafted by York County and verification of all sirens must be required in order to insure at least minimum siren coverage of the county. Therefore, it is Intervenor's position that there are not sufficient numbers of Civil Defense warning sirens in place in the county in order to adequately insure that all members of the community are within hearing distance of a siren. It is Intervenor's contention that until the Emergency Plan specifically states that a siren alert system is in place and that the warning emitted by the system can be heard at any point in the county surrounding the plant site, that the Emergency Plan as drafted is unacceptable.

Finally, Newberry Contention York Plan 2 (EP-4B) states, in part:

Section VI, Subsection 7(b). The York County Plan as drafted indicates that selective evacuation of pregnant women and pre-school children and their families would be effected upon order of the Governor. Again, the notification would be by a five (5) minute steady siren which cannot be assured will be heard in all points within the affected areas. Moreover, the Plan assumes that there will be appropriate EBS announcements followed by door-to-door notification which would be conducted by appropriate boroughs and townships. Again, the Intervenor raises the contention that the time factor required in order to recruit volunteers to man vehicles and the many miles of road which are located in the various rural communities which would have to be traveled in order to ensure notification of all members of the population of the impending emergency conditions would render the Plan as written inoperable.

Each of these contentions challenges the adequacy of the systems for prompt notification of the public within the plume exposure EPZ.

What provisions are in the current emergency plans with regard to

the time required to alert the public in the event of an emergency at TMI-1 and the methods for accomplishing such alerting.

- A. Currently, State and county plans do not state the time required to notify the public in the plume exposure EPZ. Protective action decisions are dependent, in part, on the time required to alert the public and, lacking an estimate of this time, the plans are deficient in this regard. As to the method for alerting the public in York County, as referenced in several of these contentions, York County currently plans for the use of existing "Civil Defense" sirens to be sounded with the "Attention Alert" signal and for municipalities, boroughs and townships to direct door-to-door or mobile warning operations to accomplish notifications. This present capability for alerting the public in York County is not acceptable because of the large number of persons who are not within hearing range of the existing "Civil Defense" sirens and the length of time it would take to complete notification of such persons by mobile warning operations.

Q.20. What would constitute an adequate public notification system for alerting the public in the plume exposure EPZ.

- A. An adequate public notification system would be one complying with the NRC's new emergency planning regulations. Specifically, 10 CFR 50 requires that a public notification system, conforming to the guidance of NUREG-0654, planning criteria E-6 and the design

criteria of Appendix 3 to NUREG-0654 be in place by July 1, 1981. As discussed in the NRC Staff's Testimony of Stephen H. Chesnut on Onsite Emergency Planning, filed on February 9, 1981, the licensee has conducted a study for a prompt notification system for the plume EPZ and has contracted to procure sirens for such a system. Upon completion of such study, it should be submitted to FEMA for review. In addition, the State and Counties will have to develop appropriate implementation and activation procedures for such a system. If such a system meeting the requirements of the NRC's new emergency planning regulations is installed, such a system should allow essentially all of the public within the plume exposure EPZ to receive notification within about 15 minutes of the time that the decision to activate the new system has been made. In the meantime, existing prompt notification systems could alert only a fraction of the public in the plume EPZ in a short period of time.

Q.21. Newberry Contention York Plan 3 (EP-14C) states, in part:

Section VI, Subsection 7(c). This section of the York County Plan is deficient in that it depends upon the York County Chamber of Commerce to notify and pass on the general evacuation information to business and industry. There is no assurance that the Chamber of Commerce has the necessary manpower, equipment, and training to pass on such information to the general public. For example, does the York County Chamber of Commerce possess necessary trunk lines to advise all industry within an affected area? What happens in the event that telephone communications are jammed or overloaded and that notification of industries cannot be effected by the York County Chamber of Commerce? Furthermore, does the York County Chamber of Commerce and all industry within the possible affected area have radio communication capabilities?

What role would the York County Chamber of Commerce play with regard to prompt notification of business and industry in York County?

- A. Under the NRC's new emergency planning rule and NUREG-0654, Planning Standard E, Appendix 3, a warning system which will alert essentially 100% of the public within the plume exposure EPZ is to be in place by July 1, 1981. The capabilities of this system would include the capability to warn business and industry. With the installation of such a system, the Chamber of Commerce would not play a critical role in prompt notification. Where an accident develops slowly and time permits the full mobilization of county and state emergency response resources, the selective notification of business and industries could be useful. Consequently, FEMA would not object to the Chamber of Commerce notification role but does not view it as being either necessary or critical when the prompt notification system is installed.

Q.22. What need is there for the York County Chamber of Commerce to set aside manpower and equipment, establish communications links with area industry and train personnel, all to perform a notification function.

- A. Once the prompt notification system required by NRC regulations has been installed, there will be no need for the York County Chamber of Commerce to perform a notification function or undertake any of those actions to that end. It would be wholly unnecessary and

inefficient to rely on the Chamber of Commerce to notify business and industry in York County with the existence of a prompt notification system that will provide nearly immediate and authoritative notification and directions to the public.

7.23. Newberry Contention York Plan 2 (EP-14B), also states, in part:

Moreover, it is contended by the Intervenor that the selected evacuation notification is initially effected by the same type of notification that would be required in a general evacuation. Both evacuations are initiated by a five (5) minute steady siren tone, then followed by appropriate EBS announcements. It is Intervenor's contention that similarity and warning evacuation tones may lead to confusion on behalf of the public and that orderly evacuation of the affected areas could not be effected.

In much the same vein, Newberry Contention Dauphin Plan 13 (EP-16M) states:

The Dauphin County Plan does not specifically state a differentiated commonly recognized evacuation signal that could be recognized by the Citizenry throughout the county. The Plan does not indicated whether the alarm system that is to be used is to be driven by a regular power system and if the source was terminated, whether the system would still work. The Plan does not indicate whether all areas within the county are within hearing distance of the sirens. Such deficiencies render the Emergency Response Plan inadequate.

Both of these contentions raise a concern regarding the kind of siren signal which is to be used to alert the public of a radiological emergency. What are the emergency planning provisions in this regard?

A. The only signal planned for use in a fixed nuclear facility incident is the "Attention Alert" signal. As indicated in a public education

brochure prepared for distribution in Dauphin County, the "Attention Alert" signal is a steady three to five minute siren blast. The signal has only one meaning no matter how many times it is used - namely "Turn on your radio or your TV. Your government has an important message which may affect your health and safety". Consequently, when this sole siren signal to be used for radiological emergencies is sounded, it should not result in confusion to the public but merely result in persons turning on their radios or TVs, at which point further instructions will be given over the Emergency Broadcast System (EBS) on the protective actions to be taken. Thus, there will not be separate siren signals for different protective actions (such as a general evacuation versus a selective evacuation). Differentiation in the protective actions will be made through the instructions to be given over the EBS, not through different siren signals. Through the public education program, still to be implemented, the public will be educated on what to do any time they hear the sole siren alerting signal.

Q.24. As previously indicated, Newberry Contention Dauphin Plan 13 (EP-16M) asserts that the failure of the Dauphin County Plan to provide for a backup power system for the siren alert system is a deficiency. What are the requirements for powering the siren alert system?

A. The warning system is not required to have emergency power capability but may be powered by the normal commercial power source.

Q.25. Is there a need for an emergency power source for the radiological emergency warning system?

A. Apart from the fact that there is no requirement for an emergency power source, we do not believe that one is necessary. Commercial electric power is considered to be dependable as evidenced by the fact that fire sirens generally do not have emergency power and that the Nuclear Attack outdoor warning system throughout the United States does not require emergency power.

Q.26. In a similar vein, Newberry Contention York Plan 32 (EP-14FF) states:

The York County Plan contains only one EBS station, that being WSBA in York, Pennsylvania, and lists no other secondary station in the event that WSBA loses power or in some other way is placed out of operation. It is Intervenor's contention that the Plan is deficient in that a secondary EBS station is not included in the Plan.

What are the requirements with regard to an alternate or backup emergency broadcast station?

A. NUREG-0654 does not call for or require a backup or alternate emergency broadcast station.

Q.27. What are your views as to the need for an alternate or backup emergency broadcast station for York County?

A. We can see no such need. The designated York County emergency broadcast station, WSBA, is located outside the plume exposure EPZ and would not need to be evacuated in the event of an emergency at TMI-1. In addition, WSBA has a backup emergency power supply and will continue to operate in the event of a conventional power outage.

Q.28. ECNP Contention 2-36 (EP-12) states:

ECNP contends that the routing of all information through the Governor's Press Secretary to the public adds unnecessary complexities to the entire plan. For example, since the Press Secretary of the Governor can reasonably be expected to be a political appointee and not necessarily knowledgeable at all in the area of nuclear accidents and their consequences, or the nature of radiation injury, the designation of the Governor's Press Secretary as the official and sole spokesperson adds one more pathway for and perhaps impediment to information in the cumbersome and circuitous route between an event or accident at TMI and the public. There is no need for this extra step. In addition, this extra step offers one more opportunity for errors and omissions to be introduced into the information and only adds further delay. It is not expected that this extra step will result in the removal of errors from the messages. Furthermore, the possibility exists, with this extra, unnecessary step, for political pressure to be brought to bear to alter, delay, or even withhold crucial information from the public.

What is the function of the Governor's Press Secretary under the State Emergency Plan?

A. NUREG-0654 planning criteria G 3a and 4a require each principal response organization to designate a spokesperson and a point of contact with the news media at a designated location. The Commonwealth's plan designates the Governor's Press Secretary as this principal spokesperson for the State.

Q.29. What will the Governor's Press Secretary's role be with regard to informing the public on protective actions during an emergency?

A. The Governor's Press Secretary will play no direct role either in alerting the public of an emergency or informing and instructing the public on protective actions. Those functions are performed by other means. The Press Secretary's statements and announcements are not of a critical nature and the critical information to the public is provided by the alerting and notification system.

Q.30. What are your views as to the adequacy of the State plan in designating the Governor's Press Secretary as the State spokesperson with the media?

A. The provisions of the State plan are wholly adequate in this regard. The multiple and conflicting sources of information to the media during the TMI-2 accident resulted in much confusion and lead to the mandate in NUREG-0654 that there be a single, coordinated public media information source for all state level emergency response organizations. Under the State plan, the Governor's Press Secretary

will be uniquely located at the media center adjacent to the State Emergency Operations Center (which is coordinating the State emergency response) and will be in the best position, as called for by procedures in the State plan, to be briefed by knowledgeable personnel from the State on the status of the emergency and actions taken. In this situation, the Press Secretary should be kept advised of all events in a radiological incident and should be familiar with the status of State preparedness, the condition of the plant as assessed by State technical personnel, the status of county preparedness through PEMA, and the policy and concerns of the Governor.

D. Implementation of Protective Actions

(i) Communications

Q.31. Newberry Contention York Plan 5 (EP-14E) states:

Annex A of the York County Plan provides that the alternate EOC site will be the new Hanover Borough Building in Hanover, Pennsylvania. Intervenors again raise the contention that there still is no indication at this time that trunk lines have been laid for the transfer of the Emergency Operations Center to the Hanover location, and, as such, it renders the Plan inadequate.

Similarly, Newberry Contention Dauphin Plan 4 (EP-16D) states:

Appendix 4 of Annex E of the Dauphin County Plan provides that the alternate EOC office will be located in the Millersburg Borough Building. Nowhere in the Plan is it indicated that the Millersburg Borough Building is presently in an emergency readiness condition. In short, the Plan does not indicate whether, as a matter of fact, the Millersburg Borough Building can accommodate the

requirements of the EOC with regard to telephone trunk lines, radio communications, and other EOC requirements. Until and unless this information can be verified, it is Intervenor's position that the Plan is inadequate and deficient.

What are the requirements with regard to the establishment of an emergency operations center (EOC) for counties in the plume EPZ?

- A. NUREG-0654 provides that an EOC is to be established for use in directing and controlling emergency response functions. An alternate location for the EOC is not required.

Q.32. How do the York and Dauphin County emergency plans compare to this requirement?

- A. Through the establishment of the York County EOC, which happens to be in the City of York, outside the plume exposure EPZ, and the establishment of the Dauphin County EOC, both York County and Dauphin County comply with this requirement.

Q.33. What defects have you identified in the York County and Dauphin County plans as a result of the plans' failure to explicitly indicate that communication lines have been laid for York County's alternate EOC in the Hanover Borough Building and for Dauphin County's alternate EOC in the Millersburg Borough Building?

- A. None. Under the planning guidance and requirements, an alternate EOC is neither required nor necessary. In these circumstances, the

presence or absence of trunk lines to, and other provisions for, an alternate EOC has no bearing on the adequacy of York County and Dauphin County emergency preparedness.

(ii) Support Services

Q.34. Newberry Contention Dauphin Plan 10 (EP-16K) states:

Appendix 13 of Annex E of the Dauphin County Plan indicates that there are approximately 4,000 long-term patients that would require relocation in the event of a general evacuation. The Appendix also includes a listing of hospitals that would be amenable to accepting long-term patients in the event of an emergency. While the Plan indicates the total number of beds available at hospitals, there is no statement as to the number of beds which would be available on an average at any set time. Until and unless the Plan indicates the number of possible available beds that could be afforded to Dauphin County in the event of an emergency, it is submitted that the Plan is deficient.

Describe the provisions of the Dauphin County plan related to the availability of hospital beds for Dauphin County patients who may have to be relocated.

- A. Dauphin County has listed all hospitals and long-term care facilities and their approximate distances from TMI in attachments to Appendix 13 of Annex E which are working documents for the Dauphin County Medical Officer who will be located at the County EOC. Appendix 13 provides standby and alert actions to be accomplished at hospitals and long-term care facilities. Standby and alert actions to be accomplished by Relocation (receiving) Hospitals and long-term care facilities are also provided. During the standby and alert status, the Dauphin County Medical Officer will provide an updated census by

specific patient group at both sending and receiving facilities in order to match patients for an evacuation. This is consistent with the State Department of Health Plan through which assistance in matching up ambulance services with sending facilities will be provided. The procedures in the Dauphin County plan will facilitate the identification and transportation of patients to be relocated by ambulance to relocation facilities.

Q.35. Is the failure of the Dauphin County plan to identify the number of hospital beds available for relocated patients on an average day a defect in the plan?

A. No. Under the Dauphin County Plan, there is an established information system through which the County can determine bed availability, patient allocation and serviceability and the need to obtain additional hospital beds where necessary, all in a timely manner and for the specific time when the need arises. As a practical matter, daily hospital bed occupancy varies from day-to-day as does the seriousness of illnesses being treated. In these circumstances, establishment of a fixed number of available beds for patients to be relocated simply cannot be done. Nevertheless, Dauphin County has established a system for determining bed availability on any particular day and for relocating patients based on needs on that day.

Beyond this, it should be noted that State level preparedness provides, in Appendix N of Appendix 9 of Annex E of the State DOP, in addition to established hospitals, numerous package disaster hospitals with provisions for erection if, during an evacuation, available hospital beds do not fully meet the hospital bed needs.

Q.36. As to the York County Plan, Newberry Contention York Plan 36 (EP-14JJ) states:

The York County Plan provides that there would be care provided for victims of radiation exposure; however, there is no statement that there are supplies on hand for radiation care or that there are sufficient numbers of supplies on hand to take care of a large mass evacuation in the event that there was a radiation leak. It is Intervenor's contention that, in order to provide sufficient medical care for the populace at risk, it is necessary that the Plan contain statements that inventories are available and are presently in place. Without such statement, the Plan remains defective.

Is it York County's responsibility to provide medical supplies and resources for caring for victims of radiation exposure?

A. No. The York County Plan, Annex J, indicates that it is the responsibility of the Pennsylvania Department of Health for the overall coordinating and providing of medical services and care. Therefore, it is not a requirement of the County to provide these resources. PEMA is responsible for the inventories and their verification.

Q.37. What need is there for an inventory of medical supplies for treatment of radiation victims?

A. There is no need for specific and explicit inventories of such supplies to be set out in emergency plans. Care for victims of large doses of radiation exposure is very specialized in nature and would be accomplished at those medical facilities identified in the State Plans which have this capability. These facilities have the supplies and equipment necessary to provide this treatment. If a large mass evacuation occurred, the purpose of the evacuation would be to limit the exposure to the general public. Therefore it is not anticipated that large numbers of people would be exposed to those levels of radiation which would require specialized treatment and the consumption of specialized supplies. Consequently, it is not necessary that the inventory of these specialized supplies be maintained anywhere except at the facilities capable of treating personnel who have experienced large doses of radiation. Procedures to treat persons who have received significant but not large doses of radiation would require the consumption of medical supplies that are normally available to any medical facility. This treatment would normally be limited to blood tests and the collection of urine and feces samples for analysis. Medical supplies for these purposes would be available at any hospital.

Q.38. Newberry Contention York Plan 3 (EP-14C) states, in part:

The Plan is also defective in that it is anticipated that the Pennsylvania National Guard will provide tow trucks and gasoline along evacuation routes; however, nowhere in the Plan does it indicate that the Pennsylvania National Guard has the necessary tow trucks and fuel trucks to effect such a plan. Finally, it's noted that there is no reaction time indicated in the Plan in order to assure that such tow trucks and fuel trucks could even arrive within the evacuation area due to traffic flow on the interstate and access highways.

What reliance is there on the Pennsylvania National Guard with regard to the provision of gasoline and tow trucks?

- A. The Department of Military Affairs has plans under which it will augment the Pennsylvania Department of Transportation and commercial fuel distribution with fuel trucks. Also, the Department of Military Affairs has vehicles which are planned to be used to augment other services to clear roads of impediments such as stalled vehicles. In both instances, the purpose and planning for the National Guard is for augmentation of existing services. PEMA will coordinate these Military Affairs resources directing them to augment existing resources as needed.

Q.39. What defect arises in the York County Plan from the failure of the plan to list the number of gasoline and tow trucks to be provided by the National Guard?

- A. There is no explicit requirement that augmentation resources of this sort be listed in the local plans. Since the resources of the State

can be brought to bear in this regard, the failure of the York Plan to explicitly list the number of gasoline and tow trucks available to the National Guard should not be considered a defect.

(iii) Thyroid Blocking

Q.40. What are the federal regulatory requirements and guidance for the use of thyroid blocking agents such as potassium iodide (KI)?

A. NUREG-0654, Section J.10.e and f specify that emergency plans are to contain provisions for the use of radioprotective drugs, particularly for emergency workers and institutionalized persons in the plume EPZ who are difficult to relocate, and that State and local plans are to include the method by which decisions on distributing such drugs to the general public during an emergency are to be made.

Q.41. Is distribution of KI to the general public in the plume exposure EPZ required?

A. No. General distribution of KI to the public is not now contemplated by NUREG-0654, although guidance concerning use of KI by the general public is under consideration by the Department of Health and Human Services as indicated in NUREG-0654, p.63, note 1.

Q.42. What is the present status of Pennsylvania planning with regard to the use of KI?

A. According to the latest revision to the State Department of Health's plan, as reflected in "Supplement 1 to the Commonwealth of Pennsylvania's Position Report on Emergency Planning Contentions" filed with the Licensing Board on January 30, 1981, distribution of thyroid blocking agents will be made to emergency workers and institutionalized persons. This is consistent with NUREG-0654. The Department of Health's Potassium Iodide Distribution Plan provides a listing of all hospitals, nursing homes and prisons within ten miles of TMI where institutionalized persons would be housed. In addition, this plan lists the distribution points for KI to emergency workers and institutionalized persons (all fire companies, ambulance services, hospitals, prisons, nursing homes, the emergency management agencies for each county, Fort Indiantown Gap for the National Guard and the Pennsylvania State Police Headquarters for the State Police). Distribution will be made from these listed points. The Pennsylvania Department of Health has ordered the KI for these distribution points and it will be stockpiled at each when received.

Q.43. What provisions have been made for distribution of KI to the general public?

A. The State plan does not provide for distribution of KI to the general public. According to the State Plan, KI will not be

supplied to the general public because of the lack of complete guidance provided by the FDA regarding distribution, the potential side effects and allergic reactions associated with general distribution of the drug, and due to the short shelf life of the drug. The BRP will not rely on KI as a protective action option for the general public and will therefore rely on other protective options for public protection, such as sheltering or evacuation.

Q.44. How does the State's decision to not distribute KI to the general public compare to the guidance of NUREG-0654?

A. Since the State does not rely on KI as a protective action option, and since Federal guidance is not complete with regard to the use of KI for the general public, the provisions in the Pennsylvania plan are not inconsistent with Federal guidance and the planning standard in 10 CFR 50 Appendix E with regard to Protective Response; that is, there is a predetermination that KI will not be used for the general public and this is consistent with the requirement of the NUREG-0654 planning standard.

Q.45. ANGRY Contention IIIB(D) (EP-5A) states:

The Commonwealth's plan for distribution of a thyroid blocking agent to persons at risk in the event of a nuclear accident with offsite radiological consequences (Pa. Dept. of Health RERP, App. I) is deficient for the following reasons:

1. The plan assumes an advance warning time (1 hour, p.2) that is in excess of that which NUREG-0654

concludes may be available before an initial release of radioactive materials to the environment.

2. The postulated warning time is that which is deemed the minimum necessary to enable Dept. of Health officials "to move ahead of evacuees in their distribution efforts". However, the plan is silent with respect to the much more critical time period that would actually elapse between the initial notification of the Commonwealth of an emergency situation and the availability to the public of the medication. ANGRY submits that given the logistics of the distribution process as set forth in the plan such a time period would be well in excess of one hour. The "assumption" stated in Sec. IVA(1), p.13, of the distribution plan is unsupportable as a planning basis.
3. In the case of York County, the movement of large numbers of people to the single designated distribution point for the medication, the County Courthouse, would require complete departure from predetermined evacuation routes, particularly for residents of Fairview and northern Newberry Townships. It would also cause massive traffic congestion in the center of York.
4. The plan would be useless in the event of a nuclear emergency for which sheltering was the chosen protective action. It is also useless to those farmers who "consider evacuation unfeasible and elect to seek or use sheltering for themselves ..." (Pa. Dept. of Agriculture Plan, p.17). The stated condition to the advice to "take prescribed dosage of SSKI" (Ex. 9 to App. 1, Sec. 3(c)), namely, its availability, would of course not be met under the plan as presently outlined.

For all the foregoing reasons ANGRY submits that the only method of distribution capable of insuring the availability of a thyroid blocking agent is its pre-distribution to all potentially affected households and businesses, and that such pre-distribution should be accomplished prior to the restart of TMI-1.

As to part 1 of this contention, what deficiencies exist in the State plan due to the assumptions on the time available to distribute KI?

A. None. As previously indicated, distribution will not be made to the general public. The State Department of Health has drafted a TMI site specific procedure for distribution to emergency workers and institutionalized persons. KI has been ordered by the State and, upon receipt, will be stockpiled at the distribution points. The State's plan does not assume an advance warning time and does recognize value, although diminished, in taking the drug after exposure.

Q.46. As to parts 2, 3 and 4 of this contention, what problems are presented in distribution of KI to the public?

A. None. Planning now excludes the general public from the administration of KI and the use of KI or other radioprotective drugs for the public is not now a protective action option. Thus, evacuees will not be held up or directed to specific locations to receive KI. The State plan does not consider the farmers to be a special group but, instead, treats them as part of the general public for which KI administration is not a protective action option. Similarly, since KI will not be administered to the public, the public will not be asked to leave shelters to receive the drug.

Q.47. Newberry Contention York Plan 13 (EP-14M) states, with regard to the York County plan:

Appendix 3, Annex A, Health Medical Operations, provides that that group would be prepared to assist the State Department of Health in the distribution of thyroid

blocking and other radiological health materials. Nowhere in the Plan is it stated that these materials are readily available and until and unless the Plan specifically designates that these materials are located within the York County area, it is Intervenor's contention that the Plan is deficient.

What provision is made for the stockpiling of thyroid blocking agents in York County.

- A. As previously mentioned, the State has determined that thyroid blocking agents will be distributed to emergency workers and institutionalized persons only. The State has listed distribution points for all emergency workers and institutions within ten miles of TMI including fire and ambulance companies, hospitals and other institutions in York County within ten miles of TMI, and will stockpile KI at these places when the drugs now on order are received.

- Q.48. Again with regard to the stockpiling of thyroid blocking agents in York County, Newberry Contention York Plan 3 (EP-14C) states, in part:

Subsection (c) of this Plan also provides that a County Medical Officer will coordinate with the Pennsylvania Department of Health the distribution of thyroid blocking agents and other radiological health materials. The assumption is that these materials would be stored in an area in close proximity to the affected area without any assurance that such thyroid blocking agents and other radiological health materials are even available and could be delivered to the Exit 6 area of I-83 within a time frame that would be sufficient to effect the plan.

What provisions need be made with regard to delivery of thyroid blocking agents to Exit 6 of I-83?

- A. Again, since thyroid blocking agents will not be distributed to the general public, delivery of such drugs to this point, which was a distribution point for members of the public, is not necessary.

Q.49. ANGRY Contention IIIC(11) (EP-6E) states:

The provisions in the York County plan for thyroid blocking agent distribution (Annex A, App. 3, Health-Medical Operations) are not coordinated with the state plan.

Is the York County plan presently coordinated with the State plan with regard to the distribution of thyroid blocking agents?

- A. No. In view of the fact that the State plan has been modified to provide for distribution to emergency workers and institutionalized persons only, the York County plan is presently inconsistent with the State plan in that York County calls for the distribution of KI to the general public. On December 15, 1980, all counties were requested by the State to modify county plans in accordance with the State Department of Health decision on KI and the distribution plan of the State.

(iv) Other Matters Related to Implementation of Protective Actions

Q.50. ANGRY Contention IIIB(H)(5) (EP-5E(5)) states:

The Commonwealth's discussion of the sheltering option is inadequate in that it fails to emphasize the importance of the use of building basements (see NUREG CR-1131) or of ventilating the shelter at the appropriate time (see WASH-1400, App. VI, Sec. 11.1.2) as means to maximize the effectiveness of this measure. This inadequacy is

carried through to instructions to be provided the public as set forth in County plans.

When is basement sheltering the appropriate protective measure?

- A. This is the appropriate protective measure when the radioactive release involves high level gamma emitters such that normal residential structures above ground do not provide adequate shielding. This is possible in a high level particulate release.

Q.51. Why does the State not call for sheltering in basements?

- A. The State protective action philosophy is that the measure of protection afforded by a basement for releases where basement sheltering is called for would be insufficient to assure that the EPA PAGs would not be exceeded. Hence, rather than order basement sheltering in such circumstances, the State will order evacuation. Consequently, the State does not have prepared, in its public information releases (both Emergency Broadcast System messages and public information and education materials) any direction to take shelter in basements.

Q.52. When is ventilation of a sheltering structure called for?

- A. Ventilation, that is - opening windows and doors to allow the free flow of air - is called for when the sheltering has been in effect

for such a length of time that there is a concentration of radioactive gases inside the structure greater than outside the structure or following plume passage.

Q.53. Why does the State not call for or provide for the ventilation of sheltering structures?

A. The use of sheltering is not planned beyond the period of time for which ventilation might reasonably be required (two hours). In the event that sheltering would be projected for more than this period of time, the State would not order sheltering in the first instance but would order an evacuation. Thus, ventilation need not be ordered. Beyond this, the capability will exist for directing and instructing the public on ventilation (and, for that matter, sheltering in basements) by means of the EBS in the event this is found to be desirable or necessary.

Q.54. Newberry Contention York Plan 2 (EP-14B) states, in part:

Furthermore, this section of the York County Plan anticipates parents and/or families evacuating the area will be able to pick up children at schools. This again would lead to confusion within the Plan in that if a selected evacuation was ordered and pre-school children were to be removed from the area, the Plan anticipates that action would be taken by school superintendents in the evacuation of the children from schools and that there may be interference or lack of effective execution of the Emergency Plan set forth for the school systems.

What provision is made for the evacuation of school children?

A. The State plan provides that, as part of a general evacuation, school children within the plume exposure pathway EPZ will be evacuated on a group basis from their schools. The York County Plan deals with limited, selective evacuations as well as general evacuations. In a selective evacuation within five miles of the TMI site, the York Plan allows parents to pick up children at school during school hours without parents having to rely on State or County resources.

Q.55. Is this provision a defect in York County planning?

A. No. In this regard, the York County plan goes beyond the response preparation dictated by the State plan and provides contingency planning to effect a limited evacuation of a select group of people. Since the York Plan explicitly provides for both pick up of children by parents and school evacuation actions by the school superintendents in such circumstances, the confusion referred to in the contention should not occur - that is, the precise actions of both parents picking up children and school officials providing for evacuation of children is being anticipated and planned for.

Q.56. Newberry Contention York Plan 25 (EP-14Z) states:

The York County Plan provides for the decontamination of personnel and vehicles and Subsection C of that Plan provides that all vehicles passing through a designated reception center will be decontaminated and also that all vehicles that will be on major routes leaving the county will be decontaminated. The inclusion of this in the Emergency Plan of York County renders the Plan deficient

and inoperable. It is Intervenor's position that, by decontaminating vehicles and personnel at the designated locations as set forth in the Plan will only cause the projected traffic flows to be severely diminished as a result of the decontamination. The Plan is deficient also because there is no projection as to the number of cars that would be able to travel on the evacuation routes after the initial jam-up occurs at the decontamination routes. In other words, the decontamination areas will provide a bottleneck for the evacuation of area residents out of risk areas that will effectively render the evacuation plan inoperable. Unless the decontamination points are removed to some other point besides the major evacuation arteries, it is submitted that the Plan is deficient.

What requirements are there for the decontamination of private vehicles used in evacuation?

- A. Such decontamination is not required and NUREG-0654 does not provide for the decontamination of private vehicles.

Q.57. Under the York County plan, where would vehicles used in evacuation be decontaminated?

- A. Such vehicles would be decontaminated at relocation centers. All such centers for York County are located outside the plume exposure EPZ and, as shown on p.H-5 of the York County Plan, are more than ten miles beyond the outer boundary of the plume exposure EPZ.

Q.58. How will decontamination of vehicles as provided for in the York County Plan affect evacuation from the plume exposure EPZ?

A. We do not expect that egress from the plume exposure EPZ will be affected at all. First of all, the relocation centers, where decontamination operations are planned, were selected to provide, among other things, sufficient parking for evacuees so that traffic congestion and bottlenecks at the centers from decontamination operations should be avoidable. Moreover, the relocation centers where decontamination will take place are sufficiently distant from the plume EPZ, being over ten miles from the outer boundaries, that any bottleneck and congestion at the relocation centers should in no way affect egress from the EPZ. Finally, traffic coordination will be conducted by the State Police who are responsible for assuring that traffic congestion will not occur within the plume EPZ.

Q.59. Newberry Contention Dauphin Plan 1 (EP-16A) states:

The Dauphin County Plan, in Section V, makes the assumption that persons evacuated from a risk area will only have to remain outside of the risk area for a period of three (3) days and that adequate lead time will be available to implement the provisions of the Plan. It is Intervenor's contention that a plan based upon these assumptions is inadequate based upon past experience. In the past it has been recognized that a five (5) day selective evacuation was ordered by the Governor of Pennsylvania and that basing an assumption upon a three (3) day sheltering is a defect within the Plan itself. Moreover, there is no definition as to adequate "lead time" and whether or not a definition of that term would mean a short period of time or a relatively long period

of time, and until or unless the term is specifically defined, the Plan is deemed to be inadequate.

Similar concerns are raised in Newberry Contention Dauphin Plan 19 (EP-16S) which states:

The Dauphin County Plan is deficient in that there is no long-term management provision in the event of an evacuation which would last greater than three days. Without such long-term planning, there is a possibility and a probability that confusion would reign after an evacuation of three days and it is submitted that in the March 1979 incident, the evacuation lasted for five days. Therefore, until and unless there is greater long-term management planning provided for in the emergency plan, the Plan remains deficient.

What is meant by "lead time" as that term is used in the Dauphin County Plan?

A. Lead time is the time needed to implement the plan. The meaning of this statement in the plan is that for various elements of the plan, some period of time is required to fully implement the plan.

Q.60. Does the need for lead time render the Dauphin County Plan inadequate?

A. No. The indication in the plan that some lead time will be needed to fully implement the plan is only a reflection of the practical realities of emergency planning. For example, traffic control for evacuation requires the placement of police officers at traffic control points to assist in an orderly evacuation. Obviously those police personnel are not in-place now and it would take time to put them in place. The absence of those personnel for some period of time will not preclude an evacuation. Similarly, the fact that a

full and orderly implementation of the plan will require lead times for various parts of the plan will not prevent the plan from being implemented.

Q.61. With regard to the Intervenor's concern about the three-day period of time being planned for evacuees to be out of the evacuated area, what period of time is planning required to account for?

A. Neither the NRC's emergency planning regulations nor NUREG-0654 specify a period of time for which persons are to be excluded from an evacuated area.

Q.62. What defect exists in Dauphin County planning because of the assumption that evacuees will be kept out of the evacuated area for three days.

A. None. It has been FEMA's experience that an evacuation of the scale planned in the TMI area would not necessitate any special planning or identification of ~~re~~sources to sustain the evacuated population. FEMA's experience in other evacuations indicates that the three days of evacuation that has been planned for provides sufficient time to arrange for any additional resources needed for an extended evacuation. With evacuees housed at mass care centers, any additional resources for sustaining the evacuated population may be brought in for whatever period of time is found to be necessary.

Q.63. ANGRY Contention IIIB(J) (EP-5G) states:

The Commonwealth's Department of Agriculture Plan is inadequate for the reason that it provides no information on measures for the self-protection of farm personnel who "consider an evacuation unfeasible and elect to seek or use sheltering for themselves ..." (p.17). The plan offers the farmer no choice between the two extremes of exposing himself to potentially dangerous levels of radiation or complete abandonment of his investment in his livestock.

What requirements are there for the protection of property such as livestock in the event of a radiological emergency?

- A. Neither the NRC's emergency planning regulations nor NUREG-0654 set forth requirements for the protection of property, including livestock, during a radiological emergency. Rather, the focus is on protecting the health and safety of persons with the protection of property left to ad hoc measures with no preplanning.

Q.64. What choice then is left for a farmer with livestock?

- A. Under the existing emergency planning regulations, farmers may be left only with the choice of abandoning their livestock or exposing themselves to potential dangers from a radiological accident. This choice is similar to that faced by farmers in the event of natural disasters such as floods, volcanoes and hurricanes. The farmer's investment should be covered by insurance and, in the event that it is, he need not remain to protect his investment.

Q.65. What emergency planning provisions are made for farmers who face such a choice?

A. The State Department of Agriculture extension agent (an emergency worker) will endeavor to work closely with farmers in providing needed guidance for their evacuation should this be required and for earliest return of the farmers to their property and livestock. If a farmer chooses to remain rather than to evacuate, advice on how to best protect himself and how to properly shelter his livestock can be obtained from the county emergency officer and from the State BRP. The Commonwealth's Department of Agriculture Plan provides for thorough instructional materials for the farmer to protect his livestock. It also instructs that, irrespective of the option selected by the farm operator, he should report his status and location to his county agent and to his county emergency management officer so that he can obtain advice and assistance.

E. Post Evacuation Support

Q.66. ECNP Contention 2-38 (EP-13) states:

The evacuation plans for Cumberland, York, and Lebanon Counties are based, at least in part on the assumption that many if not most, evacuees will stay with friends or relatives outside the evacuation zone. This assumption is highly questionable, since during the early days of the still-ongoing TMI-2 accident, after women and children were ordered out of the area within five miles of TMI, many tens of thousands of people outside this area themselves evacuated voluntarily. In the event of another accident at TMI which causes a twenty-mile evacuation, for which each of the five counties expresses preparedness, the resultant voluntary evacuations of persons beyond the 20-mile radius might well mean that

there will remain no friends and/or relatives for the 20-mile evacuees to reside with temporarily.

Do the evacuation plans for Cumberland, York and Lebanon Counties contain the assumption that some evacuees will stay with friends or relatives outside the evacuation zone?

- A. Such an assumption is implicit in these plans and the State plan because these plans provide for shelter for about half the potential evacuees from the plume exposure EPZ rather than for all such evacuees.

Q.67. Does the fact that these plans provide for shelter for only half of the potential evacuees render the plans deficient?

- A. No. In our view, based on past experience in disasters where evacuation has taken place, provisions for sheltering about half of the potential evacuees should be sufficient. It has been demonstrated that, as a general rule, less than 20% of evacuated population has availed itself of mass care centers (Defense Civil Preparedness Agency Technical Report ⁷⁷, "A Perspective on Disaster Planning," ² "Disaster in Perspective", 1977 (survey of over 100 disasters)). During Hurricane Carla, 23% of the evacuees took refuge in public shelters and this figure is characterized as extraordinarily high. During the TMI-2 accident itself, with the large number of people who voluntarily evacuated, very few mass care centers were utilized. Present planning provides for many more mass care centers to support 50% of the total population

in the plume exposure EPZ. This figure is conservative because it is not adjusted for emergency workers or persons who will receive special shelter such as medical or long-term care patients. In short, present planning for mass care sheltering should be more than adequate.

Q.68. Newberry Contention Dauphin Plan 11 (EP-16L) states:

Appendix 14 of Annex E indicates that within a 5 mile radius there are 24,426 individuals who would require evacuation from the area and there is an assumption made that 50% of the individuals would require sheltering. The total number of positions available for sheltering in the Plan equals 6,800. There is an obvious deficiency in the number of sheltering site positions available within the County Plan and until and unless there can be some type of acceptable levels of sheltering, the Plan will remain deficient. Moreover, it is Intervenor's position that there is an error in the addition that appears within this Appendix concerning the total capacity of the shelters and that the figure of 7,625 is in error. Furthermore, it is Intervenor's position that until and unless the Plan of Dauphin County indicates that there are auxiliary emergency power systems located in each one of the sheltering systems and emergency auxiliary heating systems at such sheltering locations, the Plan will remain deficient.

Describe the provisions of the Dauphin County plan for sheltering evacuees.

- A. The Dauphin County Plan, in Appendix 1, provides for seven support or host counties with eight reception centers. The shelter figure referenced in this contention (6800) is for the Upper Dauphin County Reception Center only and does not include the sheltering positions provided by any of the other reception centers. PEMA coordinates the sheltering needs with the host counties which are to collectively

provide for relocation sheltering for at least 50% of the evacuated population.

Q.69. What are the requirements with regard to auxiliary emergency power and auxiliary emergency heating systems for mass care centers?

A. Auxiliary power and heating systems for mass care centers are not required and, in fact, NUREG-0654 does not require any provisions for the mass care of evacuees.

Q.70. In your view, are auxiliary power and heating systems needed for the mass care centers provided for in the Dauphin County emergency plan?

A. No. In the event that loss of power or inadequate heat is encountered at a particular mass care center, sufficient numbers of centers have been planned for that relocation of persons from the affected center to unaffected centers could be undertaken. Nor is there anything to preclude the establishment of additional mass care centers and further relocation of persons. It should be pointed out that if there were a power outage in the hosting area, all persons in the area (residents, commercial enterprises) will be similarly disadvantaged and common corrective measures to restore power would be taken.

F. Exercises and Drills

Q.71. Newberry Contention York Plan 3 (EP-14C) states, in part:

Moreover, Section VI, Subsection (c)(4) provides that there will be an exercise and training of emergency service forces to include at least one annual exercise conducted in connection with PEMA. It is submitted that this part of the Plan is deficient because it does not require mandatory participation of all of the local emergency service forces. A most recent test conducted by PEMA in July of 1980 did not include the participation of a majority of the local townships and boroughs because the persons who would have been involved in that training exercise are volunteers and would not or could not obtain leave from their employers to participate in such a training exercise. It is contended that the Plan is still deficient in this area unless and until the Commonwealth of Pennsylvania through its police powers provides that those who are considered to be emergency service forces within the local boroughs and townships are given nonprejudicial paid leave time by their employers in order to participate in such an exercise.

What are the requirements for local participation in drills and exercises?

- A. The emergency planning rule 10 CFR 50 requires annual participation of the local governments or emergency management agencies within the plume exposure EPZ. The number of people involved in any exercise should be sufficiently large to demonstrate that needed resources and procedures are adequate to demonstrate preparedness. This does not mean that every element of each county response organization must be tested in each exercise, but that the counties are capable of providing a coordinated emergency response.

Q.72. What were the results and purpose of the July 16, 1980 exercise referred to in the Newberry contention quoted above?

A. From the standpoint of numbers of personnel and response organizations responding to the July 16, 1980 exercises, FEMA is of the view that the criteria were met. On the other hand, despite the participation of adequate numbers of personnel and organizations which participated, all aspects of emergency response that might be called upon during an exercise were not, in fact, demonstrated or tested. This exercise was conducted for practice only and was not intended as a full restart exercise, nor was it evaluated as such. Such a restart exercise will be conducted for compliance with the Nuclear Regulatory Commission's August 9, 1979 Order.

Q.73. What are the requirements for providing non-prejudicial leave or pay to emergency workers participating in exercises?

A. There are no such requirements in NRC or FEMA regulations for providing non-prejudicial leave or compensation to emergency workers who participate in exercises.

Q.74. What is FEMA's experience concerning participation levels by local emergency response workers in exercises held to date.

A. FEMA experience on other nuclear power plant exercises which have been conducted is that sufficient representative emergency response

personnel did participate, despite the fact that in some instances people did have to take leave from their work. Although some exercises have been conducted on weekends and in the evenings, others were performed during the work day. In FEMA's experience, no significant difference existed among participation at those exercises.

Q.75. Was there difficulty in obtaining local emergency response participation in York County during the July 16, 1980 exercise?

A. No. There was no difficulty in finding participation by York County sufficient to meet the needs and the scope of the exercise scenario. The scope of the exercise was not limited by the lack of persons available to participate. It was a York County decision to exercise at the level of their participation in July 1980.

The state required only two municipalities - namely Highspire and Middletown in Dauphin County - to participate. The other participants at the municipality level was a decision of the County.

G. Audit and Review of Plans

Q.76. Newberry Contention Dauphin Plan 9-2 (EP-16J) states, in part:

Finally, Section J of this part of the Plan indicates that evacuation plans of the various school districts will be on file with the County Emergency Preparedness Agency. It is Intervenor's contention that the plans of the school districts should mandatorily be on file and reviewed periodically by the County Emergency Preparedness Agency. Until or unless this deficiency is

corrected, it is Intervenor's position that the Plan is defective.

What requirements are there for maintaining and updating school evacuation plans at the county emergency management agencies?

- A. The new emergency planning rule provides that responsibilities for plan development and review and for distribution of emergency plans are to be established. The criteria established by NUREG-0654 in this regard are that each emergency response organization shall update its plan as needed, certify it to be current on an annual basis, and forward approved changes to organizations and individuals with responsibility for plan implementation. In addition, each plan is to contain a detailed listing of supporting plans and their source.

Q.77. What are the provisions of the Dauphin County Plan with regard to school evacuation plans?

- A. The Dauphin County plan provides a general description of evacuation of schools. The school evacuation plans are currently being developed. The Dauphin County plan further provides that the school evacuation plans will be on file with the County Emergency Preparedness Agency. While NUREG-0654 does not specify that implementing procedures such as the school evacuation plans are to be maintained on file by the county, it does require that a listing of such procedures be maintained and that the response organizations be charged to maintain

them. Nevertheless, the Dauphin County plan goes beyond the guidance of NUREG-0654 and specifically requires these procedures to be on file at the County Emergency Preparedness Office. Thus, what is sought by the Intervenor in the quoted contention is explicitly provided for in the Dauphin County Plan.

PROFESSIONAL QUALIFICATIONS

Frederick John Bath
Emergency Management Specialist
Federal Emergency Management Agency
Plans and Preparedness Division
Region III, Philadelphia, PA

I am an Emergency Management Specialist in the Plans and Preparedness Division of the Federal Emergency Management Agency, Region III, Philadelphia, PA and a Radiological Emergency Response Plans State Liaison project specialist to Pennsylvania. I am also a FEMA representative on the Regional Assistance Committee (RAC) and the point of contact for TMI site-specific planning both for the RAC and FEMA Region III.

I was a principal author of the December 24, 1980 FEMA Report on offsite preparedness for TMI, presented to the Board in January 1981.

I participated in the NRC/FEMA week-long conference on the Interim NUREG-0654 which was conducted to insure that these criteria were understood and applied uniformly across the nation.

I participated in a five-person ad hoc committee of Regional personnel to assess and react to public comment on NUREG-0654 for the FEMA National Office. I attended the Southern State Atlanta Conference also on NUREG-0654.

I received a Bachelor of Visual Arts Degree from Auburn University, Auburn, Alabama in 1963.

In January 1964, I was drafted into the U.S. Army and was honorably discharged December 1965. During my military service I was trained as a Radio Relay Carrier Operator and served in Germany in the 93rd Signal Battalion Headquarters as battalion draftsman and a carrier operator for the Command Staff.

My civilian government service began in July 1966 with the Air Force as an illustrator for the Inter-American Air Force Academy at Albrook AFB, Panama Canal Zone. I transferred from that position and location to a position as the illustrator for the Office of Civil Defense Region II, Olney, Maryland, in August 1969. In this position I supplied all the graphic support necessary to prepare the Emergency Public Information newspaper supplement for the Region's Community Shelter Program. I also worked closely with other Regional and State officials in Regional programs in my subject matter area.

In January of 1975, I transferred from the Administrative Office to the Field Service Office of the Defense Civil Preparedness Agency (DCPA) as a Regional Field Specialist and held that position until January 1980. During this period I served with a Regional Field Officer as a two-person

liaison team implementing Federal policy and assisting State and local government in the development of Civil Preparedness for Nuclear Attack. Since 1976, my assignments have been specific to Pennsylvania. Over the years I developed a thorough knowledge of DCPA programs and a positive working relationship with State and County officials in what is now called the Pennsylvania Emergency Management Agency (PEMA).

In January 1980 I was transferred to the Government Preparedness Division of FEMA Region III as an Emergency Management Specialist as part of the Reorganization Plan 3, which established FEMA. I served in this position until June 1980. I held a lead role in the planning and coordination with other Federal agencies and the military with regard to Continuity of Government for Nuclear Attack and Resource Management in a national emergency. I applied the National exercise scenario with other regional staff in conduct of a full-scale Regional exercise during REX-80 ALPHA in March 1980.

My in-service experience, roles and responsibilities since August 1969 and more specifically since 1975, have provided unique training and experience in Civil Preparedness including emergency response functions. The following are examples of such experience: participated at Regional Headquarters level during Tropical Storm Agnes in the logging and tracking of the devastation of property, and the effects and actions of the people brought by that storm; served as a Public Assistance one-Stop-Center Manager in the aftermath of Hurricane Eloise at a Center in Danville, PA; and provided staff support to the DCPA report on the Southwestern Pennsylvania Flood. Also, I served as Regional DCPA Representative at the State EOC in Harrisburg during the Three Mile Island-2 accident.

Apart from my formal undergraduate education, I have received the following additional training applicable to REP work:

- Radiological Monitoring, OCD; 7/70; Training to utilize Civil Defense radiological meters and report findings.
- Revised Fall-Out Forecast Procedures; Estimation and analysing shelter yield; RADEF Exercise Generator; and Electromagnetic Pulse - 1971 - Examples of In-Service Training provided by Region II OCD/DCPA Technical staff to field personnel in which I attended and participated.
- Civil Preparedness Career Development Program Phase I - 6/73 and Phase II 9/74; conducted by DCPA Staff College with Federal, State and County Civil Preparedness Officials jointly participating.
- Crisis Relocation Planning; DCPA Region II; 1/74 Planning Principles and Parameters for Crisis Relocation Planning.

- Nuclear Civil Protection Planner Course; DCAP Staff College, 7/76 Planning Principles and Parameter of Crisis Relocation Planning and In-place Shelter Planning. To provide base for required planning and Program Management attended by State Nuclear Civil Protection Planners and Federal Program Managers.
- NUREG-0654/FEMA REP Conference - 2/80; Emergency Management Institute in Emmitsburg, Maryland conducted by NRC and FEMA to present NUREG-0654 Interim for use. Attended by RAC participants and FEMA personnel assigned to REP role nationwide.

PROFESSIONAL QUALIFICATIONS

VERNON E. ADLER

Vernon E. Adler joined the Federal Emergency Management Agency, Region III, as Director, Division of Plans and Preparedness in early January of this year. He came to FEMA directly from the U. S. Department of State where he served a five year appointment worldwide. His principal responsibilities were in the areas of international nuclear safeguards, nuclear non-proliferation and nuclear export controls. Mr. Adler served overseas as Counselor for Scientific and Technological Affairs at the U. S. Embassy in Warsaw, Poland and as Science Attache in Tehran, Iran.

Mr. Adler has more than 20 years of industrial experience with an emphasis in nuclear power. He was employed by Combustion Engineering Inc. from 1965 to 1976 during which time he worked as Technical Assistant to the Corporate Vice President for Nuclear Power, and from 1973 to 1976 as Manager of Washington Nuclear Operations. In this last position he had the primary task of assisting his company to obtain regulatory approvals through the NRC review process, for the construction and safe operation of Combustion Engineering designed nuclear steam supply systems.

Mr. Adler is a graduate Metallurgical Engineer with a Master's degree in Business Administration. He taught marketing management on the faculty of Western New England's Graduate School of Business in Springfield, Massachusetts. Mr. Adler's background in nuclear power includes work for the Westinghouse Atomic Power Division and the U. S. Atomic Energy Commission during the mid and late 1950's.

1 CHAIRMAN SMITH: Do you have any questions about
2 that ruling? I see Mr. Cunningham nodding his head, not in
3 agreement but in understanding.

4 MR. CUNNINGHAM: As I understand your ruling, if
5 there comes a point in your testimony that we feel it is
6 beyond their scope of expertise, we can object and you can
7 make a ruling at that point.

8 CHAIRMAN SMITH: That is correct. And we also
9 have understood and accept your arguments as to weight in
10 any particular matter.

11 MR. CUNNINGHAM: Very good.

12 MS. GAIL BRADFORD: The other question I have is
13 whether we will receive the finding and determinations and
14 what use we can make of those practically in these
15 hearings.

16 CHAIRMAN SMITH: If Mr. Gray has an answer right
17 now, that is fine. If you do not, we will discuss it later
18 on.

19 MR. GRAY: The answer to whether they will be
20 received, they will be distributed to all the -- to the
21 Board and other parties when received by the staff. As to
22 how they may be or ought to be considered in this
23 proceeding, the Chairman had indicated that some time soon
24 we should discuss scheduling and remaining items. I would
25 prefer to defer to that time.

1 CHAIRMAN SMITH: Okay. That is appropriate. Yes,
2 we have ideas on how we feel this should be handled, but
3 there is no use discussing them now. We should do it with
4 the benefit of the most recent, the most up to date
5 information. So toward the end of the session we will
6 schedule a discussion session on those issues.

7 (Counsel for staff conferring.)

8 MR. GRAY: Mr. Chairman, I have some supplemental
9 questions for these witnesses which I would ask now.

10 DIRECT EXAMINATION -- RESUMED

11 BY MR. GRAY:

12 Q Mr. Bath, would you please indicate specifically
13 what versions of the state and county emergency plans formed
14 the basis for the testimony?

15 A (WITNESS BATH) Okay. The Annex E which we
16 reviewed in preparation of these filings was the Annex E
17 received at FEMA on March 4, 1981. We reviewed the exhibit
18 that the state provided and find it the same document, with
19 corrections, that was provided by the state within this
20 hearing.

21 Q Exhibit 2A?

22 A (WITNESS BATH) I believe that is correct, yes.

23 The county plans which we are calling the most
24 current are for Cumberland County, the May 5, 1980, plan;
25 for Dauphin County, September 29, 1980; for Lancaster

1 County, August 14, 1980; for Lebanon County, July 24, 1980;
2 and for York County, September 3, 1980.

3 It should be noted that FEMA has received a later
4 version of Lancaster County, which was received after filing
5 of our testimony.

6 Q At this time I have some supplemental questions
7 for these witnesses concerning contention EP-14J, otherwise
8 designated as Newberry contention, York plan 10, which, as I
9 indicated to the Board and the parties in a letter of March
10 23, 1981, was inadvertently omitted from the written
11 testimony of Mr. Bath and Mr. Adler.

12 Contention EP-14J deals with the Pennsylvania
13 State Police support of York County disaster operations and
14 actions by the state police in coordination with the
15 Pennsylvania Department of Transportation, in placing signs
16 for evacuation in York County.

17 Does the York County plan call for the
18 Pennsylvania State Police support in the York County
19 emergency response?

20 A (WITNESS BATH) Yes. In review of the current
21 York County plan, it does call for the support of the state
22 police.

23 Q What deficiencies have you identified in the York
24 County plan with regard to the plan's not specifying precise
25 responsibility for the state police?

1 A (WITNESS BATH) I found none. The state police
2 have provided -- or the York County plan provides for the
3 state police representation at the county emergency
4 operations center. The state plan provides for state police
5 participation as an emergency responder at the state EOC.
6 This mechanism or this means provides for timely
7 coordination of these resources, as are set out in the York
8 County plan.

9 Q Does the York County plan call for the
10 Pennsylvania State Police to coordinate with PENNDOT in
11 placing signs to support evacuation security and traffic
12 control?

13 A (WITNESS BATH) Yes. Yes, it does. Specific
14 reference is Annex A, Appendix 3 of the York plan does
15 provide that the state police is to coordinate with PENNDOT
16 as to the placement of signs in support of evacuation area
17 security and traffic control.

18 Q In view of the fact that the York County plan does
19 not provide for preexisting signs in this regard, what
20 dependence on the use of such signs and the state police's
21 placing of such signs, what dependence can there be on
22 that?

23 A (WITNESS BATH) I had a rather lengthy discussion
24 with Randy Curry, who is the emergency coordinator for York
25 County, and I believe he is scheduled to appear here before

1 the hearing, or he is to -- he is the York County emergency
2 management coordinator.

3 Mr. Curry provided that the signs, as mentioned in
4 his plan, are in fact any traffic signs, i.e., barriers or
5 caution signs, which the state police may feel would assist
6 them in providing the security or the blockage of any
7 traffic area, either in the effecting of traffic control for
8 evacuation or in effecting the security of an area after it
9 had been evacuated.

10 There were no specific radiological emergency
11 response planning signs envisioned in the York County plan.
12 And therefore I would not expect such to exist. The
13 availability of such state material under the Department of
14 Transportation was discussed by Mr. Lothrop here before the
15 Board, in which he correctly stated that the Department of
16 Transportation does have maintenance sheds which support the
17 Department of Transportation's capabilities within each
18 county.

19 The state police have a normal day to day
20 interface with the Department of Transportation which would
21 be utilized in calling upon the three sources during an
22 emergency.

23 Q One final set of questions raised by the Licensing
24 Board. During the testimony of Mr. Comey for the state of
25 Pennsylvania, Mr. Comey indicated that a public information

1 pamphlet produced by the state and designated in this
2 proceeding as Commonwealth's Exhibit 3, which has been
3 referred to, I believe, by the staff as a draft, was in fact
4 considered by the state to be a final version of the
5 pamphlet and that that pamphlet had in fact been distributed
6 in 1979.

7 The Licensing Board inquired as to how does FEMA
8 view the status of that concept. Would you please respond?

9 A (WITNESS ADLER) In its present form the booklet
10 has a great deal of very valuable information in it.
11 However, we feel that it is adequate when used in
12 conjunction with the county pamphlets. We conclude this
13 based primarily on the guidance found in NUREG-0654.

14 Together both of these documents meet both
15 guidelines.

16 DR. LITTLE: Does that indicate that either alone
17 would not?

18 DR. JORDAN: Before you answer, I did not get the
19 name of the second document.

20 WITNESS ADLER: County pamphlets. These were the
21 individual county sheets, which include evacuation routes
22 pertinent to the residents of each county.

23 DR. JORDAN: Yes, I understand. Thank you.

24 MR. GRAY: An example of which is Pennsylvania
25 Exhibit No. 4, for Lancaster County; Exhibit No. 5 for York

1 County.

2 CHAIRMAN SMITH: Does the state brochure have
3 information which the county brochure does not?

4 WITNESS ADLER: Yes.

5 CHAIRMAN SMITH: So you do think both of them are
6 required to be -- for adequacy?

7 WITNESS ADLER: We do. Specifically, the document
8 that has evacuation routes is responsive to
9 NUREG-0654.G.1.C.

10 CHAIRMAN SMITH: It was the other one that I was
11 wondering about, that is, what the county plans contained
12 that the state one does not. That is the concern that we
13 have, because we received testimony that the state plan will
14 not be issued further.

15 WITNESS ADLER: There are deficiencies, Mr. Smith,
16 in the state brochure as it stands.

17 CHAIRMAN SMITH: No, that is not -- oh, I see.
18 Yes, I guess that is my question.

19 WITNESS ADLER: I'm trying to turn it around. I
20 tried to address what is absent rather than what is present
21 in the state document. Am I right?

22 CHAIRMAN SMITH: Yes, I see now. I was not
23 thinking through the whole problem. But we have to face
24 that problem, too, what is in the county plan that is not in
25 the state plan, and then what is in the county -- what is in

1 the state plan that is not in the county plan.

2 WITNESS ADLER: Okay.

3 (Panel of witnesses conferring.)

4 WITNESS ADLER: The information on radiation, what
5 it is, placing it into a practical context, is found in the
6 state brochure. It is an educational piece and in that
7 sense fills one of our needs.

8 The county plan emphasizes, properly, the
9 evacuation routes and protective actions to be taken by the
10 public. Residents in those counties that have each document
11 alone has one piece missing, and together they comply with
12 0654.

13 CHAIRMAN SMITH: Okay. The best evidence of that,
14 of course, is a comparison of the two plans against each
15 other, which they are in evidence. I just wanted a summary
16 of it for convenience on the record, which you have done.
17 Thank you.

18 BY MR. GRAY: (Resuming)

19 Q Mr. Adler, may I suggest several other things that
20 the county pamphlets contain which the state pamphlet does
21 not. You have mentioned evacuation routes. How about
22 relocation centers?

23 A (WITNESS ADLER) Yes, relocation centers, and
24 other materials in G.1.B and G.1.D of 0654 guidance.

25 Q And information on who to contact for additional

1 information?

2 A (WITNESS ADLER) True.

3 Q Are you then suggesting that there should be an
4 additional distribution to persons within the plume exposure
5 pathway EPZ of both the state pamphlet and the individual
6 county pamphlets?

7 A (WITNESS ADLER) That is the logical conclusion we
8 draw.

9 MR. GRAY: Thank you. The staff has no further.

10 (Counsel for Staff conferring.)

11 CHAIRMAN SMITH: Ms. Bradford.

12 CROSS-EXAMINATION

13 BY MS. GAIL BRADFORD:

14 Q What standards or guidelines do you judge public
15 information -- Commonwealth Exhibit 3 or the county
16 planning, which I believe are Exhibits 4 and 5?

17 A (WITNESS ADLER) Basically, the guidelines are
18 those found in the section I cited a moment ago, G of the
19 NUREG-0654, entitled public education and information.

20 Q Is that -- is that it and then you just use your
21 judgment?

22 A (WITNESS ADLER) I do not really understand the
23 question. Is that it? Do you mean is that sufficient or is
24 that all one cares about? I am not certain what your
25 question means.

1 Q Is that all the applicable guidelines, that one
2 section?

3 A (WITNESS ADLER) To the extent that that gives
4 people living within the plume exposure pathway EPZ what
5 they need to do, "the right thing," quote, unquote, in a
6 variety of accident postulated circumstances, the answer is
7 yes.

8 That does not mean it should be limited. I do not
9 want to make the -- give the impression that that is all
10 that is wanted. There is always room for improvement in
11 content and in addition.

12 (Pause.)

13 Q Have you reviewed Commonwealth Exhibit 3 and
14 Exhibits 4 and 5?

15 A (WITNESS ADLER) If you would tell me what they
16 are by title --

17 Q Oh, I am sorry. That is the PEMA handbook, "What
18 You Should Know About Nuclear Radiation Incidents."

19 A (WITNESS ADLER) I have.

20 Q And the county plans.

21 A (WITNESS ADLER) Yes.

22 (Counsel handing documents to witnesses.)

23 Q I do not mean to say that these are the county
24 plans. They are the county pamphlets.

25 Do you find that these, particularly Commonwealth

1 Exhibit 3, the emergency information published by the
2 Commonwealth of Pennsylvania -- do you find that the -- this
3 pamphlet contains inaccurate or misleading information?

4 (Witnesses reviewing documents.)

5 A (WITNESS ADLER) No, I do not.

6 Q Do you find that -- that it is adequate?

7 (Panel of witnesses conferring.)

8 A (WITNESS BATH) We see this document as part of
9 the public education and the public information programs
10 that are set out in the Annex E of the Commonwealth plan.
11 We see this as complementary and in fact it addresses the
12 specific items within NUREG-0654, item G, yes.

13 However, we also must recognize that the programs
14 -- it eludes me right now -- I think it is Appendix 15 of
15 the state plan and other sections which spell out an
16 extensive public information and education commitment which
17 goes well beyond these documents.

18 Q Do you find that this -- this -- the exhibits I
19 have listed, the Exhibit 3, which is the Commonwealth plan,
20 and the county level pamphlets are inadequate without
21 further public information?

22 A (WITNESS ADLER) Together I think I have stated
23 that we found them adequate. Are you asking whether they
24 should -- I am not -- would you rephrase your question?

25 CHAIRMAN SMITH: The question was all right. I do

1 not think you heard it correctly. Mr. Bath just testified
2 that, together with other information, the two pamphlets are
3 adequate. And now it is -- the question is, without that
4 information, would they together be inadequate?

5 WITNESS ADLER: With that additional information,
6 the state and county pamphlets together meet the guidelines
7 required in 0654.

8 BY MS. GAIL BRADFORD: (Resuming)

9 Q How do the state and county pamphlets notify
10 transients? How is that supposed to be accomplished?

11 A (WITNESS ADLER) You are asking about the
12 distribution system now, rather, I think, rather than the
13 content of the documents themselves. And FEMA is not aware
14 of the distribution planning. Actually, I am referring to
15 implementation and distribution techniques at this time.

16 (Panel of witnesses conferring.)

17 Q Can you tell us whether FEMA has yet done any
18 formal findings and determinations -- is that what they are
19 called -- on a commercial nuclear power plant since the
20 publication of NUREG-0654?

21 (Panel of witnesses conferring.)

22 A (WITNESS ADLER) Yes.

23 Q Which?

24 (Panel of witnesses conferring.)

25 A (WITNESS ADLER) The locations are not in Region

1 III, but I am told by my colleagues it was in Tennessee and
2 Alabama.

3 Q Could you tell us which plants?

4 A (WITNESS ADLER) One is Sequoyah.

5 (Panel of witnesses conferring.)

6 A (WITNESS ADLER) I don't offhand know that, but we
7 can get it for you without any trouble.

8 MR. COSGROVE: Chairman Smith, if it please the
9 Board, we can get those. We can get copies of those
10 findings.

11 (Board conferring.)

12 MR. COSGROVE: Or we can identify the plants for
13 you over the lunch hour.

14 CHAIRMAN SMITH: Dr. Little said it would be
15 helpful to see what one looks like. So when we see one
16 ourselves -- so it would be helpful.

17 MR. COSGROVE: I will make a call at lunchtime.

18 DR. JORDAN: Yes, this is one of the questions
19 that I was going to bring up particularly as to what
20 experience you have had with other states. And since I live
21 nearby the Sequoyah plant and know that there was a state
22 exercise, the involvement of FEMA in the state exercise and
23 the findings would be of interest.

24 CHAIRMAN SMITH: He is not, however, intervening
25 in that proceeding.

1 (Laughter.)

2 CHAIRMAN SMITH: Nor did I intervene in the
3 Cherokee -- in the Sequoyah.

4 (Laughter.)

5 MS. GAIL BRADFORD: Yes. Thank you. That would
6 be helpful. I was wondering what these things look like.

7 BY MS. GAIL BRADFORD: (Resuming)

8 Q Why -- why have you not yet issued your findings
9 and determinations?

10 A (WITNESS ADLER) The administrative process
11 includes a number of very important steps, not all of which
12 have been completed at this point. One of the most
13 important steps is an exercise, and as I understand it the
14 TMI site specific Pennsylvania exercise will be conducted on
15 June 2. This is only one of the steps that has to be
16 accomplished before the formal findings and determinations
17 are written.

18 Q I do not think I understand that. You say the
19 exercise on June 2 will be before May 15?

20 A (WITNESS ADLER) The May 15 document, as I
21 understand it, is not a formal finding and determination.
22 It is an interim document. You know, this is a moving,
23 dynamic process.

24 Q Well then, what is your final formal FEMA finding
25 and how does that differ from what -- what we have here

1 today and what we will have on May 15?

2 CHAIRMAN SMITH: You know, what I think might be
3 helpful along this line is perhaps Mr. Cosgrove could give
4 us some idea himself how FEMA does what it does, you know,
5 what is the final determination process, who issues it, how
6 it suddenly is bestowed the mantle of rebuttable
7 presumption, and that type of thing. That really would be
8 helpful to us if we had some insight as to how you go about
9 it.

10 MR. COSGROVE: Chairman Smith, the rules for
11 FEMA's operation in this area for a formal finding and
12 determination are contained in Proposed Rule 44, CFR 350,
13 which should be finalized shortly. We have agreed with NRC
14 to issue --

15 CHAIRMAN SMITH: Excuse me. When was that -- when
16 was that rule noticed for comment?

17 MR. COSGROVE: Federal Register notice, volume 45,
18 No. 123, Tuesday June 24, 1980, proposed rule at page
19 42341.

20 CHAIRMAN SMITH: Okay. I think we have had that.

21 MR. COSGROVE: That contains the formal process.

22 CHAIRMAN SMITH: Okay.

23 MR. COSGROVE: As far as informal process goes for
24 this particular plant and hearing, FEMA will be providing
25 informal findings and determinations. The rebuttable

1 presumption, it is my understanding, will come into effect
2 as a result of NRC regulations on the findings and
3 determinations.

4 CHAIRMAN SMITH: Okay.

5 MS. GAIL BRADFORD: Can you tell us --

6 CHAIRMAN SMITH: Another problem. It might be
7 good to -- I am sorry to interrupt.

8 But when the formal findings are issued, according
9 to your rules, now aside from the problem about attaching
10 presumption on an operating license, it is after all going
11 to be at the most a rebuttable presumption. I think this
12 problem is going to be Mr. Gray's and not yours. I think he
13 would be grateful for this.

14 What underlying data or basis do you intend to
15 provide between you and FEMA, do you intend to provide to
16 attack the findings? I mean, what -- how much support will
17 the final finding have, the final determination have?

18 MR. GRAY: From the FEMA standpoint, it will have
19 the FEMA record of the plans which FEMA has reviewed, as
20 well as any additional documentation that FEMA has acquired
21 in its effort to make its findings and determinations. As
22 to whether the NRC staff would attempt to rebut the FEMA
23 findings and determinations, I just simply cannot say that.
24 And it would take, if it is determined that a finding of
25 FEMA should be rebutted, it would take a substantial

1 documentation and presenting of reasoning as to why that
2 particular finding should not be accepted.

3 CHAIRMAN SMITH: That was not exactly my
4 direction. My direction was, what will come along with the
5 determination which will enable, say, parties to this
6 proceeding to rebut the attendant presumption?

7 MR. GRAY: The findings and the determinations
8 themselves, along with, I anticipate, FEMA witnesses to
9 support those findings and determinations.

10 CHAIRMAN SMITH: Okay. And will the findings
11 reach the conclusion that I'm going to quote now from the
12 NRC rule, quote, "Whether state and local emergency plans
13 are adequate and capable of being implemented." Will that
14 be a conclusion, a determination made by FEMA?

15 (Counsel for NRC Staff conferring.)

16 CHAIRMAN SMITH: Yes, I am talking about the May
17 15 findings, the May 15 submittal.

18 MR. COSGROVE: Chairman Smith, they should.

19 CHAIRMAN SMITH: Okay. That is -- okay.

20 MR. COSGROVE: Excuse me. I think Mr. Adler may
21 be able to answer that directly from the region's point of
22 view.

23 WITNESS ADLER: Just to clarify, Mr. Smith, indeed
24 it should. But as a practical matter, it may very well not
25 be that specific, particularly if we note that the county

1 plans have yet to be reviewed by the regional assistance
2 committee. And these have not yet been received by FEMA.

3 So what I am trying to say, sir, is we will do the
4 best we can within the time constraints that we must work
5 with.

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1 CHAIRMAN SMITH: I suppose there will be better
2 information available at the end of next week.

3 MR. COSGROVE: Yes.

4 WITNESS ADLER: In addition, the exercise itself
5 will contribute greatly to the formal finding and
6 determinations obviously following May 15.

7 CHAIRMAN SMITH: Okay. I see.

8 With that interruption, I think it would be a good
9 time for the noon break. Would it be all right with you, or
10 do you have something you want before then?

11 MS. GAIL BRADFORD: I just had a couple of
12 questions about this one issue.

13 CHAIRMAN SMITH: Okay.

14 BY MS. GAIL BRADFORD:

15 Q I understand you to say that the May 15 findings
16 should answer the question of whether or not the plans are
17 thought to be adequate. Is that correct?

18 A (WITNESS ADLER) The findings and determinations
19 of May 15 will address the deficiencies that have been
20 removed since late December in that document which was
21 provided as a set of findings and determinations. Where
22 issues remain open, these will be identified.

23 Hypothetically, if no issues remained open our
24 findings and determinations would clearly state adequacy.

25 Q But it is not your final exercise on it until

1 after the test exercise, and what else? What other
2 differences are there between the information you are
3 presenting on May 15 and the last round?

4 A (WITNESS ADLER) I expect there will be changes to
5 the plans specifically following what we learn from the
6 exercise, as well as responses by the state to the Regional
7 Assistance Committee comments yet to be documented in their
8 review of the modified county plans.

9 CHAIRMAN SMITH: When do you think that FEMA will
10 be making its determination, including the drill and the
11 final determination on the county plans? What type of time?

12 (Panel of witnesses conferring.)

13 WITNESS ADLER: Mr. Smith, it is awfully difficult
14 to put a date on that. If I may, I would say in the coming
15 months following the exercise. The coming months following
16 the exercise is about the best I can say and still feel
17 reasonably comfortable.

18 CHAIRMAN SMITH: It could be as late, then, as
19 August or September.

20 WITNESS ADLER: Yes.

21 MS. GAIL BRADFORD: I guess that is all I have on
22 this subject, sir.

23 CHAIRMAN SMITH: All right. Let's take our noon
24 break until 1:00.

25 (Whereupon, at 11:52 a.m. the hearing was

1 recessed, to reconvene at 1:00 p.m. the same day.

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1 AFTERNOON SESSION

2 (1:10 p.m.)

3 CHAIRMAN SMITH: Preliminarily, there was
4 confusion between the Board and Mr. Tourtellotte as to who
5 would identify the transcript pages which were relevant to
6 Mr. Basdekas' concern. As a result we will defer it until
7 the end of the day and we will do it.

8 MR. TOURTELLOTTE: I think probably it can be done
9 very readily from the list that Mr. Trowbridge made
10 available to us last week.

11 I should like to add one or two things to what I
12 said this morning. I think I indicated there that the
13 Basdekas response referred to the Ross testimony when in
14 fact it did not. It must have been either a conversation
15 that I had with him or one that Mr. Cutchin had with him.
16 At least his most recent response did not refer to that.

17 I also talked about this matter with Mr. Cutchin,
18 and Mr. Cutchin said that he specifically discussed with Mr.
19 Basdekas the testimony that he thought was relevant, namely,
20 the Conran, Thatcher and Ross testimony, and in fact
21 Demetrius raised the same point that he made in his memo to
22 Mr. Cutchin and he said, you know, that there was 15,000
23 pages of testimony.

24 According to Mr. Cutchin, he told Mr. Basdekas
25 that it was not necessary for him to review 15,000 pages but

1 that all he need do is turn his attention to the testimony
2 of these three witnesses, Conran, Thatcher and Ross, and
3 gave him the places in the testimony where it appeared, and
4 what ensued is the memorandum that you have there now.

5 You said that you will get this additional --

6 CHAIRMAN SMITH: Well, what we have in mind is
7 identifying on the record the particular pages, asking Mr.
8 Basdekas to read them, to verify to the Board that he has
9 read them or that he declines to read them, one or the
10 other, and state whether he has any additions, specific
11 additions that he thinks are required for the record to be
12 complete.

13 Our idea is that there is already a large volume
14 of evidence on the issue and that is the only practical way
15 we can see to identify what Mr. Basdekas' concerns might be,
16 is for him to look at the large volume of evidence and
17 identify where voids may be.

18 But our trying to repeatedly question him and come
19 up with the right question and produce the right answer
20 simply is not going to be effective. He does not seem to
21 respond logically to it, to the inquiries, it seems to me.

22 Dr. Jordan's particular concern is with Mr.
23 Basdekas' memorandum to you of February 9, 1981 in which he
24 states that the B&W-performed FMEA was never extended -- and
25 he emphasizes now these words -- as it should have been --

1 end of emphasis -- to include the TMI-1 plant design
2 features of its control systems and plant dynamics which are
3 unique to it. That is Dr. Jordan's particular concern.

4 If he can come up with information which is in
5 addition to the inquiries that Dr. Jordan and other parties
6 have made of the witnesses, this is his opportunity and it
7 is his last opportunity. But so far he simply has not been
8 helpful, and I would like to have him have access to the
9 transcript of this morning and this afternoon in which we
10 have discussed his contribution. We want to make it clear
11 that we appreciate his interest, but he should also
12 understand that he cannot stand back in Bethesda and toss
13 little gems up here to Harrisburg and expect us to enlarge
14 them into an evidentiary record.

15 MR. TROWBRIDGE: Mr. Chairman, with reference to
16 your efforts about Dr. Jordan's concern, let me relay
17 accurately, if I can, a message from Tom Baxter. He hoped
18 that in identifying testimony that Mr. Basdekas should read,
19 it would include Licensee's testimony, I think by B&W
20 people, which refer to the applicability of B&W's generic
21 reliability studies to TMI-1.

22 CHAIRMAN SMITH: Yes, I certainly think that
23 should be the case. Our interest here is two-fold. One is
24 to assure the complete opportunity for Mr. Basdekas to come
25 forward with the information necessary to complete the

1 record, and the other is, failing that, to demonstrate that
2 he has had the full opportunity and has not taken advantage
3 of it.

4 Frankly, we are despairing now in view of the
5 conversation reported by Mr. Tourtellotte between Mr. Cuchin
6 and Mr. Basdekas that he will come forward with a clean,
7 precise answer to it, but if he fails this time I think we
8 will require the presumption that he has nothing more to
9 offer us.

10 So we will address it once more at the end of the
11 session when we identify the transcript pages, and
12 specifically what we are asking him to do. All right.

13 MR. ZAHLER: Mr. Smith, the parties have been
14 discussing among themselves the schedule, in particular the
15 ability to conclude the hearings prior to the 28th, and the
16 question that came up was if it looked likely that we could
17 complete the emergency planning phase by the 24th, would the
18 Board be willing to stay late, that is, until 5 o'clock on
19 that Friday, rather than end the hearings at noon?

20 CHAIRMAN SMITH: The difficulty is that is an
21 important religious holiday for many people. Oh, excuse
22 me. That is this Friday, isn't it. If that means the
23 difference between -- yes, I was wrong. Good Friday is this
24 week.

25 (Board conferring.)

1 CHAIRMAN SMITH: Yes. If we can complete the
2 business on the 24th rather than return the following week,
3 we would prefer to do that.

4 MS. GAIL BRADFORD: Sir, may I ask was it the day
5 of the 28th that you needed or that you would want to have
6 off or was that the week, sometime during that week?

7 CHAIRMAN SMITH: No. We would like to not come up
8 here during that week.

9 MS. GAIL BRADFORD: Thank you, sir.

10 CHAIRMAN SMITH: The week of the 28th -- the 27th.
11 (Board conferring.)

12 CHAIRMAN SMITH: Understand, the highest priority
13 is to go ahead with the record if evidence is available, so
14 we are prepared to have hearings during that week just as
15 any week. But if it appears there is a reasonable
16 opportunity to conclude, we would rather work longer the
17 week of the 20th rather than to come back for apparently one
18 day on the 28th. We are very, very busy and it is
19 inefficient -- that is a problem we all have. It is
20 inefficient to spend a day traveling for a day's hearing.

21 MR. ZAHLER: Mr. Chairman, I guess it was not
22 clear to me from this morning's discussion that the Board
23 desired to have off the week or would like to finish up
24 before the 27th. There are design issues, I understand, on
25 environmental qualifications or something like that that

1 need to be heard, and I guess my understanding was that
2 having finished emergency planning, we would then go into
3 that, in which case it may be that nothing is served by
4 finishing up on the 24th if there was testimony with regard
5 to design issues and they would have to be taken up the
6 following week.

7 CHAIRMAN SMITH: If there are design issues that
8 are ready to be heard the following week, then we will.

9 MR. ZAHLER: Okay. I believe there are such
10 issues that would be ready to be heard on the week of the
11 27th.

12 CHAIRMAN SMITH: Then if that is the case, then we
13 will continue, but we did not know that that was the case.
14 As a matter of fact, we thought to the contrary that there
15 might not be, that there would be a hiatus there of several
16 weeks.

17 DR. JORDAN: I believe there are a number of open
18 items, that there is a supplemental SER coming out on design
19 issues, so there may be a number of issues that would come
20 up after we finish on the emergency planning.

21 MR. TROWBRIDGE: My understanding is based again
22 on telephone discussion with Mr. Baxter this morning, who in
23 turn will be talking with Mr. Cutchin, that the staff may
24 very well issue supplement number 3 this week, closing out,
25 in its view, most if not all open items in the design area

1 as well as a couple in the management area.

2 The staff will also have a supplement to its
3 previous report on control room design, which was an
4 SER-type document. Beyond that there will be -- this
5 probably will not occur until toward the end of the month --
6 the health physics inspection report.

7 CHAIRMAN SMITH: Okay. Now, isn't this an
8 advancement or bringing faster along the third supplement to
9 the SER? My memory of it was that that was not due to be
10 issued until the end of this month, or would not be made
11 available until the end of this month.

12 MR. TROWBRIDGE: I do not have a good memory on
13 that. September 15 rings a bell with me, but I would not
14 stand by it.

15 CHAIRMAN SMITH: April 15.

16 MR. TROWBRIDGE: April 15.

17 MR. TOURTELLOTTE: Mr. Smith.

18 CHAIRMAN SMITH: Yes?

19 MR. TOURTELLOTTE: The SER, as I had discussed
20 with the Board earlier, as to have been presented to us for
21 legal review on the 15th. Actually it was submitted to us
22 last Friday. I have looked at that and other members of my
23 staff who are interested in particular issues have looked at
24 it and it is being finalized. It will issue either the
25 latter part of this week or on Monday. I think Monday at

1 the latest. And it will, as Mr. Trowbridge indicated,
2 resolve all of the outstanding issues in plant design and
3 modification as well as in management.

4 CHAIRMAN SMITH: All right. I think that reminds
5 me now of what I was thinking of. Your earlier estimate was
6 that you would receive it about the 15th and it would not be
7 ready for issuing, I think the date was the 27th, about.

8 MR. TOURTELLOTTE: I had an inside date of the
9 20th and an outside date of the 27th, and it is fairly clear
10 now that most of what has to be done is simply
11 administrative in terms of getting it printed and mailed
12 out, and that will be within the next couple of days,
13 hopefully.

14 CHAIRMAN SMITH: Well, that is the best you can
15 do. That is fine. That is better than you predicted.

16 MR. TOURTELLOTTE: Yes. And if we can have it in
17 time to get it mailed up here, say express mail or something
18 so that it can be dispersed before everyone leaves on
19 Friday, we will do that. Otherwise it will probably go to
20 your offices in Bethesda and we will bring copies up with us
21 on Monday.

22 CHAIRMAN SMITH: I was thinking particularly of
23 the Union of Concerned Scientists, giving them the maximum
24 amount of time on it, for example if there could be an extra
25 draft of it going around or something so that they could get

1 it even earlier. It would be a little bit more appropriate
2 to have any possible evidence on it the week of the 27th.

3 MR. TOURTELLOTTE: Okay. We also should be
4 closing out the health physics inspection, although it
5 appears in conversations that I have had with the people who
6 have the hybrid health physics issue that that issue will
7 not be completed until a month later.

8 CHAIRMAN SMITH: All right. Well, I guess this
9 brings to the fore discussion that we thought would be more
10 appropriate at the end of next week, and that is what do we
11 do when we have substantially completed the record but we
12 have important open items?

13 We had given some thought to proceeding with the
14 proposed findings schedule as has already been approved,
15 with the exception of specifically identified sub-subjects,
16 sub-issues, and then reopening the record later on in the
17 summer for a final cleanup session as to particular issues,
18 receive evidence as to the drill, health physics.

19 We were also thinking about the third supplement
20 but I see that that will not be necessary, and anything else
21 that might be hanging around, the final county plans. We
22 learned this morning that it is not going to be feasible to
23 get the formal FEMA conclusions, overall conclusions, so
24 that would not be a realistic objective.

25 But that is what we thought we might offer as an

1 alternative, to interrupt the decision writing for a very
2 brief evidentiary session, a cleanup session, which would
3 seem to be falling somewhere about the beginning of July.
4 It really should fall earlier, but that might cause
5 difficulty in reply findings of the parties because the
6 final reply findings on design and modification issues are
7 due July 1. But ideally if we could have a few days at the
8 end of June to clean up all of the other items, that could
9 probably be done more efficiently, more completely and more
10 thoroughly.

11 At any rate, that is one of the considerations
12 that we had given. It would mean yet another round of
13 proposed findings, but overall it might provide some
14 efficiencies if everything is carefully prepared and
15 presented all at once. So we would welcome your thoughts on
16 that. We were thinking of deferring the discussion until
17 the end of next week because there would be more up-to-date
18 information, but we are prepared for that approach.

19 We do believe that the evidentiary record should
20 include the results of the drill and the health physics
21 inspections and that the drill in particular is required, is
22 one of the mandatory issues in the Commission's order and it
23 is an important one, and take that out of adjudication,
24 which would be the effect, is a very large item to take out
25 of adjudication.

1 So that is what we had thought would be done
2 without delaying, however, the proposed findings schedule.
3 We might inform the Commission of that plan, too, so that
4 they can approve it or disapprove it. So we will do it,
5 what the pleasure of the parties is, set this whole matter
6 down for discussion later when we have the most up-to-date
7 information or take it up whenever the parties wish to. I
8 think now we can defer it even longer.

9 If we are going to have design issues ready for
10 final presentation the week of April 27, well, I think we
11 ought to address it at that time. That way everybody has
12 the benefit of the most up-to-date information.

13 MR. GRAY: Mr. Chairman.

14 MR. TROWBRIDGE: I do think it would be much
15 better if we waited until the SER was actually in hand and
16 perhaps waited until the emergency planning, at least this
17 segment of the emergency planning is out of the way before
18 we discuss bringing the schedule to a close.

19 CHAIRMAN SMITH: Okay. Mr. Gray.

20 MR. GRAY: Mr. Chairman, I believe you had
21 mentioned this morning that the week of May 4 there was an
22 Atomic Safety and Licensing Appeal Board -- or Board panel
23 conference. Did you indicate that there would be time
24 during that week then when there will be no hearing sessions?

25 CHAIRMAN SMITH: It would be much better if we had

1 that week off to attend the training session. We have not
2 discussed the possibility of attending part of it or none of
3 it. Again, the highest priority that a member of this Board
4 has is to hear and decide this case, and we will miss that
5 if we have to. But there has to be a good reason for it
6 because there is a strong Commission policy that panel
7 people participate in the seminars to maintain their skills.

8 (Board conferring.)

9 CHAIRMAN SMITH: Yes. How about Mr. Belser's
10 appearance. There were a number of items that were deferred
11 to him and he does not seem to be discussed in any of the --

12 MS. STRAUBE: He is included with the county
13 coordinators. I believe it was going to be a panel of Mr.
14 Belser and the two county coordinators. It may not be
15 listed as such but I think that is what is intended.

16 (Board conferring.)

17 CHAIRMAN SMITH: All right. Mr. Brenner points
18 out that there are two issues that are somewhat open, one in
19 the staff's report to us about emergency planning, the
20 footnote. You had indicated that you might make a report to
21 the Commission or maybe you said that you would. As I
22 recall it was possibly.

23 MR. GRAY: That was concerning the potential
24 rescheduling of emergency planning exercise from June 2 to
25 another date.

1 CHAIRMAN SMITH: Yes.

2 MR. GRAY: And since that was not rescheduled, we
3 did not report the rescheduling to the Commission.

4 CHAIRMAN SMITH: All right. Is there anything
5 about what you learned today or at least what we have
6 learned today about the final FEMA conclusion, overall
7 conclusions that would motivate the staff to report to the
8 Commission?

9 MR. GRAY: The formal FEMA findings and
10 determinations, which I believe Mr. Adler had indicated
11 would be forthcoming near the end of the summer, we had not
12 anticipated reporting that particular matter to the
13 Commission. FEMA has nevertheless indicated that they will
14 provide the requested informal findings and determinations
15 by May 15, which was what we had anticipated.

16 CHAIRMAN SMITH: Yes. All right, then, Mr.
17 Tourtellotte. You had indicated that the staff was going to
18 give a written report, I believe, on final wrapup scheduling
19 matters, and was that a correct understanding? I honestly
20 do not recall it. Mr. Brenner has just mentioned it. There
21 is going to be a written list of all outstanding issues for
22 a tentative schedule of cleaning them up.

23 MR. TOURTELLOTTE: I do not recall that
24 specifically. I think the outstanding issues that I might
25 have been discussing I was discussing in relationship to the

1 issuance of the third supplement, and I think what I said
2 was to the extent that the third supplement does not close
3 out issues, then we will provide a list of when those
4 outstanding issues would be closed.

5 CHAIRMAN SMITH: All right.

6 MR. TOURTELLOTTE: My understanding right now is
7 that there are not going to be outstanding issues. If there
8 are, there may be one or two, and certainly if that is the
9 case we will advise the Board and the parties as to when we
10 will close them out. But right now I cannot do that.

11 CHAIRMAN SMITH: Okay.

12 MR. GRAY: Mr. Chairman, where that may have
13 arisen is, I believe, in the staff's report on emergency
14 planning issues in which there was an indication that a
15 similar type of identification as to all the other issue
16 areas, open and unresolved items was in the process of being
17 prepared and would be submitted.

18 It may well be that the events have caught up with
19 that in that Mr. Tourtellotte has indicated the SER
20 supplements to be issued which will, as he indicates, close
21 off the remaining open items in other issue areas.

22 CHAIRMAN SMITH: All right. Anything further on
23 this matter?

24 (No response.)

25 CHAIRMAN SMITH: All right, Mr. Cunningham. Ms.

1 Bradford.

2 MR. COSGROVE: Mr. Chairman, you asked a question
3 before lunch about previously issued findings and
4 determinations by FEMA.

5 CHAIRMAN SMITH: Yes.

6 MR. CONSGROVE: The information I have now is that
7 there are two existing conditional findings and
8 determinations that have been issued by FEMA, one on
9 Sequoyah, the other one on Farley. Copies of those are
10 being sent to us.

11 CHAIRMAN SMITH: Okay. Thank you.

12 MR. ZAHLER: Mr. Cosgrove, can I ask whether North
13 Anna 2 falls into that category?

14 MR. COSGROVE: The only information I was given by
15 FEMA headquarters was on Sequoyah and Farley, and I asked as
16 of to what were the issuances, and those were the two
17 that were given to me.

18 DR. LITTLE: Which one were you asking about, Mr.
19 Zahler?

20 MR. ZAHLER: North Anna 2. That was the one last
21 summer. It was my understanding that some type of
22 conditional FEMA findings and determinations was issued in
23 connection with that plant.

24 MR. COSGROVE: I will check on it and get back to
25 you.

1 MR. ZAHLER: The precise status of it may be
2 somewhat up in the air because I think it was before the
3 effective date of the Commission's new rule.

4 (Pause.)

5 CHAIRMAN SMITH: You may proceed.
6 Whereupon,

7 MICHEL S. PAWLOWSKI,

8 FREDERICK J. BATH and

9 VERNON E. ADLER,

10 the witnesses on the stand at the time of the noon recess,
11 resumed the stand and were examined and testified further as
12 follows:

13 CROSS EXAMINATION - Resumed

14 BY MS. GAIL BRADFORD:

15 Q Would you turn to question 5 in your testimony of
16 February 23 which starts on page 4?

17 A (WITNESS ADLER) What page is that?

18 Q It is on page 4 of your February 23, 1981
19 testimony. The subject is initial notification of
20 governmental units. Can these key personnel be contacted
21 without using the telephone, and if so, how?

22 (Panel of witnesses conferring.)

23 A (WITNESS BATH) My understanding is it is
24 dependent upon telephone.

25 (Pause.)

1 Q Did you make any estimate of how long it would
2 take to contact all the key personnel listed here by
3 telephone?

4 A (WITNESS BATH) In communications with your county
5 and in the conferences with PEMA in its direction and
6 guidance to York County, York County was advised to set up a
7 cascading type telephone communication in which less persons
8 would be dependent upon any given person to call. If one
9 person in fact had to call all these persons, then we
10 thought there would be a deficiency. If that answers your
11 question.

12 Yes, it would be unreasonable, and no, we did not
13 make an estimate as to how long it would take them to call
14 the total key personnel list.

15 Q Did you come up with a number of the total key
16 personnel? I am wondering how you made the judgment that it
17 would be inadequate for them to be called sequentially by
18 one person but adequate for it to be done in a cascading --

19 A (WITNESS ADLER) May I?

20 Q Yes.

21 A (WITNESS ADLER) It is a standard approach when a
22 large number of people have to be contacted to use a
23 cascading approach. We did that in Iran when we had to
24 contact a number of companies. Each company executive had
25 in turn the responsibility to contact perhaps one-half dozen

1 other company executives. So you have what I call a
2 pyramid, although the word "cascade" is conventionally used
3 here. And that is really axiomatic preferred approach.

4 Now, I do not -- would you rephrase the specific
5 question?

6 Q Mr. Bath said it would be inadequate to call the
7 key personnel sequentially.

8 A (WITNESS ADLER) He said all key personnel
9 sequentially.

10 Q Right.

11 A (WITNESS ADLER) Rather some key personnel, and
12 this is where we may have a little difficulty in answering
13 your question about giving precise numbers. Qualitatively
14 you break down the total number needed to a number of
15 pieces. Go ahead.

16 A (WITNESS BATH) This specific contention that we
17 answered, we established that we felt you were specifically
18 talking about the executive group persons, which would only
19 be six people. We would not find that too long a list for
20 one of the two operators who may be available at the EOC. In
21 normal situations there is one 911 operator and other radio
22 operators who could place these calls, dispatchers, and we
23 did not feel that that specifically was out of line in the
24 time necessary.

25 DR. JORDAN: What is the 911 operator?

1 WITNESS BATH: Sir, the telephone systems -- and I
2 a terrible as far as dates and so forth. There has been an
3 attempt to in each county establish a Centrex system in
4 which persons within a county can call a three-number
5 emergency number and receive an emergency operator, and that
6 emergency operator can transfer that call to an emergency
7 services dispatcher. That is the operator I am talking
8 about.

9 BY MS. GAIL BRADFORD: (Resuming)

10 Q I have a couple of questions that I want to
11 continue on this, but I wondered whether you want to switch
12 microphones or microphone stands. You make me very
13 uncomfortable watching you. I do not know whether you are
14 uncomfortable with that situation.

15 A (WITNESS BATH) I am okay, thank you.

16 Q Do you know how many operators operate the 911?

17 A (WITNESS BATH) Yes. The normal number of 911
18 operators in York County, it is a two-position 911
19 switchboard. Normal operations is one. In an emergency it
20 is two. The radio dispatchers who are available in York
21 County are also trained to operate the same piece of
22 communications, so basically only two persons can operate
23 the board, as I understand it.

24 Q All right. Do you have an answer to the question
25 which I asked, which was how long do you estimate it will

1 take to contact all key personnel by telephone?

2 (Panel of witnesses conferring.)

3 A (WITNESS ADLER) The key executive group is
4 contacted within the 15 minutes. That is an outside number
5 that we want them to remain within in making that initial
6 telephone contact.

7 Q And the rest of the key personnel, for instance
8 schools, township coordinators, fire companies?

9 A (WITNESS ADLER) We can only estimate and offer
10 guidance that that be done within the ensuing half-hour. We
11 would hope. We do not have a specific requirement.

12 Q So, I just need an answer to the question. Do you
13 have an estimate or do you not have an estimate of the time?

14 (Panel of witnesses conferring.)

15 A (WITNESS BATH) The reason that I do not want to
16 put down exactly a time frame as to when a notification is
17 received versus when key personnel are called is that is a
18 specific area which we would be concerned in in a drill,
19 either a notification drill or in a full-scale exercise, and
20 we would be interested in finding out as to the final
21 revisions of the York County plan as to their methodology
22 and the timing for such notification.

23 Our first look at this is that the key executives
24 appear to be a reasonable list. They provide telephone
25 numbers, both for duty and home, and they could reasonably

1 notify them.

2 CHAIRMAN SMITH: Gentlemen, I think part of the
3 problem is you are not accustomed to cross examination. I
4 am sure you will be before too many years are out. But she
5 is trying to develop a record on which she can make proposed
6 findings, and listen carefully to her question and give the
7 most direct answer you can.

8 Then if she wants an explanation or your lawyer
9 wants an explanation or if you independently feel an
10 explanation is necessary, ask for the opportunity; but first
11 give her the opportunity that she is entitled to under the
12 law to get a direct answer to the question.

13 The question now is: State whether or not you do
14 have an estimate. If the answer is no, well, say it.

15 WITNESS ADLER: We do not have a precise estimate.

16 BY MS. GAIL BRADFORD: (Resuming)

17 Q Are key personnel not within the emergency
18 planning zone also notified of an event?

19 A (WITNESS ADLER) Yes, although they are less
20 important unless they have specific emergency functions to
21 perform from wherever they are contacted.

22 Q Are they just notified by listening to the EBS
23 station or does somebody actually call them?

24 (Panel of witnesses conferring.)

25 A (WITNESS ADLER) If they are on that list they

1 will be called. That is the procedure.

2 Q And do you know if they are on that list, persons
3 outside of the EPZ?

4 A (WITNESS BATH) Was the question emergency, local
5 emergency management coordinators or what? I am sorry, I
6 did not hear the first question.

7 Q Whether key personnel as designated by a county,
8 who might be, for instance, school personnel or township
9 coordinators or someone like that, personnel in hospitals
10 which are located outside of the emergency planning zone --

11 A (WITNESS BATH) In review of York County plans,
12 the list of persons that they plan to notify does include
13 personnel who are outside the EPZ, and they will be notified
14 by telephone.

15 Q Personnel whose duties are outside of the EPZ, not
16 just those who live outside of the EPZ.

17 A (WITNESS BATH) That is right.
18 (Counsel for ANGRY conferring.)

19 Q Is it not true that other personnel would not be
20 contacted, other key personnel would not be contacted until
21 after the warning siren has gone off?

22 A (WITNESS BATH) My understanding is it is possible
23 dependent upon the need to get public instruction out. If
24 there is sufficient time to allow government mobilization
25 and the development of an accident based on a given scenario

1 provides for these types of mobilization, then it is
2 reasonable that the warning signal would not take place
3 before notification.

4 It also is reasonable since the immediacy of
5 protective actions could possibly take place before this
6 list is all notified.

7 Q So it is your testimony that the county
8 coordinator, having received information from the state,
9 would then notify his personnel and he may delay. Although
10 he would have a 15-minute capability on the siren alert
11 presumably he may delay that period. He may extend that
12 15-minute period in order to notify all of his key personnel
13 before sounding the siren.

14 A (WITNESS BATH) I believe I said the exact
15 opposite; that if in fact the need for public information is
16 such that he may go ahead with the EBS announcement before
17 he has notified all his staff, not that he would extend out
18 or delay to tell the public in order to notify all his staff.

19 Q Yes, but by saying that he might do that, there is
20 also the implication that he might not do that, that he
21 might choose to notify all of his personnel before sounding
22 the siren. Is that also true?

23 A (WITNESS ADLER) That would be up to his judgment
24 under the circumstances.

25 Q So it is your testimony that he might be able to

1 do that, notify all of his personnel and delay the siren
2 sounding for a period longer than the 15 minutes.

3 A (WITNESS ADLER) Yes.

4 (Pause.)

5 Q Do you expect that phone lines will be jammed
6 after the siren sounds?

7 A (WITNESS ADLER) I would expect there to be a
8 heavy load of phone calls after the siren sounds. However,
9 I would hope that people would do what the siren intends
10 they do, namely, go to their radios and televisions and wait
11 for announcements on how best to proceed. I believe that if
12 they are properly trained in understanding the meaning of
13 the siren, that they would do that rather than jam the phone
14 lines.

15 Q But for planning purposes do you make an
16 assumption that the telephone lines might be jammed and
17 therefore act accordingly?

18 A (WITNESS ADLER) I do not know what you mean by
19 telephone lines being jammed. There can be a presumption
20 that no emergency information can be transmitted on
21 telephone lines if they are in fact "jammed." We do not
22 make that presumption.

23 Q I just mean overloaded such that when you call
24 someone's number you get a busy signal and you do not get
25 connected.

1 A (WITNESS ADLER) It does not really enter into the
2 planning in any way that I can think of right now. It is
3 not a deterrent or an obstacle to the efficacy of the plan
4 implementation. There will be heavy phone traffic.

5 MS. GAIL BRADFORD: Mr. Smith, I am sorry, I am
6 having trouble getting direct answers. I am sure they --

7 CHAIRMAN SMITH: In this instance I think you
8 received a direct answer. Now, you said will the phones be
9 jammed, and then you asked the question correctly, do you
10 assume that they will not be jammed, and his answer was
11 quite direct. He says he assumes that telephones will do
12 what they are intended to do, and then his last answer was
13 but it does not matter.

14 Now, I think the explanation is -- you are
15 entitled to an explanation as to why it does not matter. Is
16 that a fair summary of what happened? Is that a fair
17 summary of how you understood the questions, Mr. Adler?

18 WITNESS ADLER: Yes, sir. In fact, I would like
19 to volunteer why it does not matter if I am not asked the
20 question, and that is because the sirens first sound and the
21 planning is that people go and listen for information that
22 comes across the emergency broadcast system. Telephonic
23 contacts are not therefore an essential part of the plan
24 implementation at that point.

25 DR. JORDAN: Even for the key personnel?

1 WITNESS ADLER: Even to the key personnel because
2 they in fact have been contacted before, by and large,
3 before the sirens have sounded.

4 CHAIRMAN SMITH: This is the point, those that
5 have not been able to be contacted. I think that is where
6 she is going with her questions.

7 DR. JORDAN: Yes. It was our understanding from
8 your answer that some of the personnel would be contacted
9 but not all of the list necessarily before the siren
10 sounded. Now then, after the sirens sound, then how about
11 those key personnel that have not yet been contacted? Are
12 they supposed to go and get their information by listening
13 to the radio or will they be dependent upon the telephone
14 system?

15 WITNESS ADLER: Everyone should go to the EBS
16 after the sirens have sounded.

17 DR. JORDAN: Now, do those key personnel get
18 enough information to do their job? Is that all they need
19 to know, that there is an alert? There are no other
20 instructions that are coming over the telephone, that they
21 do not need the telephone instruction?

22 WITNESS BATH: We would expect that key personnel
23 who have a role and have been in fact instructed as to their
24 role in an alert status, upon hearing that there is an alert
25 status would realize that they have to move to certain

1 locations in order to perform their function. However, we
2 do not feel that this totally relieves the emergency
3 management government at county level in continuing to
4 follow on with its telephone call to ensure that persons
5 have in fact been notified.

6 Now, they may receive numerous, you know,
7 indication of yes, my husband heard that and he is on his
8 way, or something, but the telephone calls are confirmatory.

9 BY MS. GAIL BRADFORD: (Resuming)

10 Q Is your assumption that local key personnel will
11 go to their designated stations backed up anywhere in the
12 municipal plans?

13 A (WITNESS ADLER) Could you restate it, please?

14 Q Is your assumption that local key personnel will
15 go to their designated stations backed up in the municipal
16 plans?

17 A (WITNESS ADLER) We do not know because we have
18 not seen municipal plans. NUREG-0654 guidance requires that
19 we review state and local, and the word "local" means county
20 level plans, and this is what FEMA has been doing. However,
21 we welcome seeing municipal plans if they are made available
22 to us.

23 (Counsel for ANGRY conferring.)

24 Q Is it FEMA's view that the municipal plans are
25 critical to the operation of the county plans?

1 A (WITNESS ADLER) Where the counties assign
2 responsibilities to those municipalities, we do and would
3 require the review of plans from the standpoint of those
4 delegated responsibilities from the county.

5 Q Prior to restart?

6 A (WITNESS ADLER) As a normal part of our planning
7 review process.

8 Q When do you expect to do that?

9 (Panel of witnesses conferring.)

10 A (WITNESS ADLER) Well, we have already stated that
11 there will be an interim set of findings and determinations
12 prepared by FEMA May 15.

13 Q Will that include findings and determinations on
14 municipal plans?

15 A (WITNESS ADLER) To the extent that they have been
16 made available to us by the state, yes.

17 Q How many have been made available, and which?

18 A (WITNESS ADLER) We have not received any
19 municipal plans from the state.

20 Q Thank you.

21 Have you been able to determine from the county
22 plans what municipal plans are relied upon by the county
23 plans?

24 (Panel of witnesses conferring.)

25 A (WITNESS BATH) At present in general there appear

1 to be some functions which in the present planning or the
2 current planning are assigned to municipal governments. We
3 are talking about -- in York County I believe it is the
4 assignment of pickup points. We are talking about the
5 collection of a list of persons who may be homebound and
6 making arrangements for their transportation. We are
7 talking about supplementary notification, i.e. warning -- I
8 should say warning -- when and if it is determined that it
9 is necessary because of the coverage of the siren systems.

10 So yes, we are aware that there appears to be
11 responsibilities deferred down to municipal levels, and we
12 will be looking for resolve or procedures to implement that.

13 Q Are school evacuation plans critical to the
14 operation of a county plan?

15 (Pause.)

16 A (WITNESS ADLER) Such plans are critical.
17 However, they need not be municipal plans.

18 Q Yes, sir. Have you received any school plans?

19 A (WITNESS ADLER) We have not.

20 (Counsel for ANGRY conferring.)

21 Q Who within York County is responsible for the
22 decision to sound the alarm, including the decision when to
23 sound the alarm?

24 (Panel of witnesses conferring.)

25 A (WITNESS ADLER) We believe it is the coordinator,

1 the emergency county coordinator.

2 Q Do you know whether he acts alone or whether he
3 consults with the county commissioners?

4 A (WITNESS ADLER) It is his choice, but if I were
5 in his position I would do what you suggest.

6 Q Do you know how long it takes to notify the
7 commissioners?

8 A (WITNESS ADLER) I do not.

9 (Counsel for ANGRY conferring.)

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1 Q Have you reviewed the Licensee's evacuation time
2 estimate study prepared by Parsons, Brinckerhoff?

3 A (WITNESS ADLER) Yes.

4 Q Turning quickly to page 9 -- well, the question in
5 general is, does the review -- does your review of the
6 Parsons, Brinckerhoff study change anything in your
7 testimony?

8 A (WITNESS ADLER) Without reading all the
9 testimony, again, I recall we said we looked forward to this
10 study, and now of course we have reviewed it. So it does
11 not change it, but I can amplify, add to it.

12 Q On page 10 it says: "Thus the sole reservation we
13 have regarding quantification of the state's protective
14 action criteria is that a usable time-motion study of
15 evacuation performed in accordance with the guidelines of
16 NUREG-0654 has not been completed, and the resulting
17 evacuation time estimates are not available."

18 A (WITNESS ADLER) Could you restate the question?
19 I was rereading the testimony.

20 Q Has your review of the Licensee's time estimate
21 study done by Parsons, Brinckerhoff changed your testimony?

22 A (WITNESS ADLER) No.

23 (Counsel for ANGRY conferring.)

24 Q Are you then of the opinion that the Parsons,
25 Brinckerhoff study is not a usable time-motion study of the

1 evacuation?

2 A (WITNESS ADLER) I am not of that mind at all. I
3 liked it.

4 (Laughter.)

5 Q So your testimony is changed in that respect?

6 A (WITNESS ADLER) Amplified.

7 Q Amplified, fine.

8 DR. LITTLE: Can I interject something here? We
9 seem to be getting close to something, but we cannot get it
10 out.

11 Do you consider that the Parsons, Brinckerhoff
12 study which was submitted by the Licensee is in fact a
13 usable time-motion study of evacuation performed in
14 accordance with guidelines of NUREG-0654?

15 WITNESS ADLER: I do.

16 DR. LITTLE: Do you find it acceptable?

17 WITNESS ADLER: I do.

18 (Counsel for ANGRY conferring.)

19 DR. LITTLE: Do you have any reservations about
20 any part of it?

21 WITNESS ADLER: I do. I have reservations that
22 are not constraints on the report so much as they are
23 differences between what their people have found and that
24 elaborated by the state. Those differences are important to
25 me and I hope that they will be soon resolved.

1 DR. LITTLE: Mr. Gray, somebody from the staff is
2 going to address the time study specifically; is that
3 correct

4 MR. GRAY: Yes. Mr. Urbanik will address the time
5 study, but with regard to methodology, capacity
6 determinations and that sort of thing, but not with regard
7 to specific assumptions relative to the actual local
8 planning.

9 And in fact, I might interject that we would hope
10 to have Mr. Urbanik testify tomorrow in that he has some
11 problem with being available next week. He will be -- has
12 other commitments.

13 MS. GAIL BRADFORD: I am wondering if it would be
14 agreeable to the Board if we did Mr. Urbanik first thing
15 tomorrow and then went back to this panel, if they are still
16 there, and then ask this panel questions on the evacuation
17 time estimate study.

18 (Board conferring.)

19 CHAIRMAN SMITH: Unless there are objections, it
20 seems to be an appropriate approach to us.

21 (Pause.)

22 CHAIRMAN SMITH: Do you think it might be possible
23 to speed up the pace of the questions and answers? The
24 record does not demonstrate it, except overall, but there is
25 a lot of time between each question and answer. And I am

1 only suggesting you think of the possibility. If you
2 cannot, well, do not.

3 But you seem to be following rather closely a
4 rather well thought out cross-examination plan.

5 MS. GAIL BRADFORD: I am trying to do this. I
6 often read the question before asking it.

7 CHAIRMAN SMITH: Sure. That is a good idea, to
8 understand it.

9 (Laughter.)

10 BY MS. GAIL BRADFORD: (Resuming)

11 Q Page 14 of your testimony. What training does
12 FEMA recommend a county emergency operations coordinator
13 have?

14 (Pause.)

15 A (WITNESS BATH) I --

16 DR. LITTLE: Ms. Bradford, I think if you refer to
17 a page, if you say something like, question 16 addresses the
18 contention that states, the emergency management coordinator
19 may not have sufficient requirements, and they will have to
20 answer and find the appropriate place in the testimony
21 faster.

22 BY MS. GAIL BRADFORD: (Resuming)

23 Q Did you find the place on this?

24 A (WITNESS ADLER) If I understand your question,
25 you are asking what kind of training these people can

1 receive to be prepared to do their jobs.

2 Q Yes.

3 A (WITNESS ADLER) The same training that I
4 received, in part at least, at the Federal Emergency
5 Management Agency's Emergency Management Institute in
6 radiological emergency preparedness.

7 Q What training does FEMA require that emergency
8 operations coordinators at the county level have? Is there
9 some training without which the plan is then deficient?

10 A (WITNESS ADLER) We do not impose any specific
11 requirements. We assume the men are qualified at their jobs
12 or they would not be holding them.

13 (Counsel for ANGRY conferring.)

14 Q Can you tell us in your judgment whether training
15 that you described ensures that the county coordinators will
16 be able to interpret displays and technical reports for
17 their commissioners?

18 A (WITNESS ADLER) It should.

19 Q Can you tell us what training specifically in
20 radiological monitoring the county coordinators have?

21 (Panel of witnesses conferring.)

22 A (WITNESS PAWLOWSKI) I will address that question
23 for Mr. Adler. On the whole, looking across the nation and
24 across the state of Pennsylvania, the majority of all
25 emergency coordinators at the county level, by virtue of

1 their responsibility, having the requirement to develop dual
2 use capability plans, to provide response for both nuclear
3 attack as well as peacetime emergencies, would incorporate
4 as part of their training program radiological monitoring
5 training.

6 Now, the specific aspects of that training,
7 whether or not it encompasses radiological monitoring or
8 radiological response under accident conditions associated
9 with nuclear reactors, would be dependent upon the state
10 interface with the state division of radiological health and
11 the civil defense, state civil defense office, in
12 interfacing that particular part of the training and to the
13 normal radiological monitoring program.

14 (Counsel for ANGRY conferring.)

15 Q Do you know what training in particular in
16 radiological monitoring that the county coordinators for the
17 five risk counties around TMI have?

18 A (WITNESS ADLER) I do not. If they went to the
19 same course I did -- and I met some of them and we were
20 colleagues in those -- in that course, they would know the
21 difference between an alpha, beta, gamma, and the detectors
22 of those energetic particles. They would be familiar with
23 it.

24 They would know how to use it, with a little bit
25 of guidance. But beyond that, I really -- I really could

1 not speak for each one of them or any of them.

2 Q When the Licensee was testifying about the onsite,
3 they spoke about -- I cannot remember whether it was three
4 or four different kinds of monitoring equipment that they
5 have. I was wondering whether the county coordinator would
6 be familiar with the kinds of equipment and the readings and
7 maybe the sensitivity of those equipments?

8 A (WITNESS PAWLOWSKI) Could you restate the
9 question, please?

10 Q The question is, what training in radiological
11 monitoring these county coordinators have?

12 DR. LITTLE: The ones in the five risk counties
13 that we are dealing with specifically.

14 MR. ZAHLER: That was not the last question. I do
15 not know if that is what is causing confusion on the
16 panel.

17 WITNESS BATH: Part of my confusion is she is
18 talking about radiological monitoring, which in fact gets us
19 into the civil defense role of the emergency management
20 coordinator versus the sick nuclear facility incident role.

21 And as this particular state plan is envisioned,
22 the Bureau of Radiation Protection is the technical advisor
23 that in fact incorporates the technical information provided
24 by the Licensee and would advise the county as well as PEMA
25 as to the technical aspects of the radiological monitoring,

1 as I understand the plan, therefore reducing a requirement
2 for a highly technical education of county coordinators.

3 CHAIRMAN SMITH: You said therefore you do not see
4 it.

5 WITNESS BATH: I do not see it as that important
6 in the manner in which Pennsylvania is planning.

7 CHAIRMAN SMITH: Okay. That is an appropriate
8 explanation for an answer to the question. However, she is
9 entitled to the answer to the question, if there is one, if
10 you know the answer.

11 WITNESS ADLER: Let me see if I can say it. The
12 Bureau of Radiological Protection --

13 CHAIRMAN SMITH: Wait a minute. The question is,
14 what training do the county coordinators have in
15 radiological monitoring?

16 WITNESS BATH: Two county coordinators are very
17 new, one being Randy Curry and the other one being Michael
18 Wirtz. I am not aware of how much training they
19 specifically have received.

20 Paul Lees, who has been on for a number of years,
21 has taken some career development courses as well as in --
22 in civil defense matters, has received some radiological
23 training pertinent to a nuclear -- a nuclear attack. Paul
24 Lees also was involved in the TMI-2 incident. So there are
25 some coordinators who were involved throughout the process

1 and as such have a fairly good familiarity of what they are
2 dealing with, and others are relatively new.

3 We would expect the state to institute training
4 and we at FEMA stand ready through EM -- the Emergency
5 Management Institute, to provide such training.

6 BY MS. GAIL BRADFORD: (Resuming)

7 Q Could Mr. Adler identify which county coordinators
8 attended the seminar with him? Can Mr. Adler identify the
9 county coordinators who attended the seminar with him?

10 A (WITNESS ADLER) There were none from the State of
11 Pennsylvania.

12 Q Oh, thank you.

13 A (WITNESS ADLER) That I can remember.

14 (Pause.)

15 Q Have you reviewed the Licensee's plans for siren
16 coverage?

17 A (WITNESS ADLER) We have not seen the Licensee's
18 plan for siren coverage.

19 Q Will you require a test of the system after it is
20 installed?

21 A (WITNESS ADLER) Yes.

22 Q Will that test be before your final findings?

23 (Panel of witnesses conferring.)

24 A (WITNESS ADLER) You see, the exercise will be
25 conducted without in place full siren coverage. That is

1 kind of an ongoing program, and I understand that is to be
2 completed by the beginning of July. The interim findings by
3 FEMA therefore, for May 15, cannot be a test -- include a
4 test of the full siren system. It will not be installed.

5 After it is installed, we will test it. It is
6 more difficult for me to give you a precise answer to that
7 question. But I would say within some months after full
8 installation and after we have been notified that there has
9 been full installation.

10 Q So you are saying that you are not sure whether
11 your final findings on adequacy of the plan will include the
12 test of the siren alert system?

13 (Panel of witnesses conferring.)

14 MR. COSGROVE: Mr. Smith, for the information of
15 the Board, FEMA's determination in Sequoyah and Farley are
16 conditional upon the alert notification system being
17 installed and tested. That is my understanding. And we
18 have no reason to believe that it would be any different
19 here.

20 WITNESS ADLER: It can become a condition of our
21 findings and determinations.

22 MS. GAIL BRADFORD: Thank you.

23 BY MS. GAIL BRADFORD: (Resuming)

24 Q Question 21, which is on page 19, relates to the
25 Chamber of Commerce's role as was in one edition of the

1 county plan. Have you seen or reviewed any lists of
2 factories or other institutions within the emergency
3 planning zone which have very high noise levels and where
4 workers may not be able to hear a siren sound?

5 A (WITNESS ADLER) Not to my knowledge.

6 Q Assuming that such factories exist, what special
7 notification procedures will alert -- will alert these
8 people?

9 A (WITNESS ADLER) There are none. And may I add --
10 may I explain? The design for the siren system, as I
11 understand it, has something like 10 to 20 db higher than
12 ambient. Admittedly, ambient does not take into account --
13 it is an average, a smear, and does not take into account
14 high level noise factories.

15 But the presumption that FEMA is making, at least
16 at this time, is that the db's above background would be
17 adequate and would be present for all residents listening in
18 the area. I doubt that we would -- well, that's it. That
19 is all I know about it.

20 Q If that assumption were demonstrated to be false,
21 would you require that special notification procedures also
22 exist?

23 A (WITNESS ADLER) We would seek it through the
24 state.

25 Q Would you find the alert system deficient if that

1 situation were found to exist, where there would be a
2 factory that could -- where the workers could not hear the
3 siren?

4 A (WITNESS ADLER) No, because there would be
5 augmenting procedures, as we have just discussed, to notify
6 those people who did not hear it.

7 CHAIRMAN SMITH: Is there any concept in emergency
8 planning that planning might work in the opposite direction
9 that is being addressed in this hearing? And that is, for
10 example, if I work in a factory where I know I cannot hear
11 sirens, I complain to my foreman, the foreman complains to
12 the general manager, and somehow they identify the need.
13 The need comes from the population at risk. The
14 identification of the need comes from the population at risk
15 rather than from the planning authorities.

16 Is that any part of --

17 WITNESS ADLER: Yes, sir. This is indeed one of
18 the augmenting thoughts that I had when I answered Ms.
19 Bradford's question, that the management would be
20 responsible for notifying the workers who found themselves
21 in an environment in which they could not hear and would be
22 expected to hear the alert system.

23 CHAIRMAN SMITH: My question is a little bit more
24 conceptual, though, as to how the emergency planning is
25 fine-tuned. I cannot imagine myself remaining at risk very

1 long without adjusting in my life some accommodation to it.
2 And I just am wondering if any studies have been made or if
3 any credit has been given for that, or if any thought has
4 been given to the natural instinctive self-preservation on
5 the part of people to accommodate themselves to emergency
6 planning.

7 (Panel of witnesses conferring.)

8 WITNESS BATH: Sir, maybe this -- it is in
9 practice, York County, in discussing, apparently, with the
10 Chamber of Commerce as to methodologies by which a factory
11 or whatever could receive supplemental notification,
12 identify the NOAA, that is the N-O-A-A weather system that
13 could be purchased, that FEMA, the Pennsylvania Emergency
14 Management Agency plans to activate as a warning device,
15 which would then cause the person to listen to the EBS for
16 the notification.

17 CHAIRMAN SMITH: Yes, I have heard about that.
18 That is not really what my question is. Now, I know, for
19 example, from reading the proposed FEMA rules that there is
20 a provision for the public to have some input into the rule
21 -- I mean, into the plans. Now, along that line, is there
22 any concept in emergency planning which will encourage the
23 public from their vantage point, from their viewpoint of
24 emergency planning, to step forward and identify
25 deficiencies?

1 I mean, if I should find myself living on a road
2 or living in a living situation whereby I do not fit the
3 general part of the population and something in particular
4 has to be provided for me or people like me, do emergency
5 plans encourage those people to step forward and identify
6 themselves, and does it encourage them to make special plans
7 for themselves and their own self-protection?

8 I mean, I hear this question about the factory
9 over and over again. I have little patience with it. It
10 just is not going to happen, within my factory-working
11 experience. You know, factories are probably the best forms
12 of communication. Information spreads throughout them like
13 lightning. And we spend so much time litigating something
14 that does not fit into common sense.

15 But it does suggest a basic problem, and that is
16 all the questions have been dealing with what has been
17 working from the top down and not what has been working from
18 the population at risk up. And this is what I am trying to
19 find out.

20 I am not trying to find out about NOAA or anything
21 in particular.

22 WITNESS ADLER: The answer, sir, it would be yes.
23 One example is the Chambers of Commerce -- and I am not
24 addressing any specific Chamber of Commerce in this hearing
25 -- would have an industrial board or members from industry

1 concerned about -- and my mind goes initially to civil
2 defense, because it is related to this kind of protection,
3 this kind of risk assumption.

4 They take it upon themselves to deal with these
5 questions, to worry these problems. And I would have to
6 guess that they would talk to the local governments
7 involved. I do not know what kind of -- I am having
8 difficulty because I really do not know the degree of
9 follow-through that takes place from a chamber of commerce
10 in a given town to its county government, to its state
11 government, and then to the federal people who can take
12 effective helpful actions.

13 CHAIRMAN SMITH: What I am suggesting by my
14 questions is, you can plan and plan and plan, but the most
15 dependable method of emergency planning is to encourage each
16 individual citizen to look at his own position and identify
17 it in relation to the overall planning and encourage that
18 citizen to either make a judgment or speak out when
19 adjustments cannot be made.

20 And that is the real fine-tuning of any community
21 problem, and that is to having the individual citizen have
22 opportunity for input. And this does not seem to shine
23 through in much that I hear about it, except peripherally,
24 when we talk about emergency planning.

25 WITNESS PAWLOWSKI: If I could --

1 CHAIRMAN SMITH: I wonder if that is not a basic
2 conceptual error, too, to allow citizens to believe that
3 everything will be planned for them and not make it very
4 evident that responsibilities rest all over at every level
5 down to the individual, which is a hard question for you to
6 answer.

7 But if you can give me general comments on it I
8 would appreciate it.

9 WITNESS PAWLOWSKI: I would like to comment on the
10 fact that throughout all of the training that the emergency
11 coordinators are given across the country in developing
12 emergency plans for both -- for the dual use concept of
13 being prepared for both nuclear attack and peacetime
14 emergencies, that the communities' emergency planning
15 foundation be built upon a cooperative effort of both
16 business, industry and government, working together to meet
17 the emergency planning requirements for survival of the
18 community.

19 And this is a recurring theme which is evident on
20 the basis of plans which we have seen come across the agency
21 in terms of local preparedness.

22 CHAIRMAN SMITH: That is very good. That is the
23 type of information I was seeking there. That is fine.

24 (Board conferring.)

25 DR. LITTLE: It has been my experience in plants

1 with high noise levels that management offices do not have
2 high noise levels, and the usual solution to the problem is
3 to have a flashing light system which can be activated by
4 someone in the management office. It is a simple problem to
5 take care of.

6 You can guarantee that in any major plant there is
7 going to be some mechanism for getting messages to the
8 workers on line in a rapid fashion, either by sound or
9 lights or some mechanism.

10 WITNESS BATH: On the previous question, as far as
11 involving the actual individual, I can at least say that the
12 planning that we are considering is developed not just from
13 the top down, but also from the bottom up. And we do
14 recognize the importance of the local government, that which
15 is closest and most available to the citizen for
16 complaints.

17 One of the main reasons for public information and
18 one of the requirements for the local emergency coordinator
19 to provide -- the county emergency coordinator, is to give
20 feedback. Also, in the FEMA proposed rule we have
21 provisions for a public meeting where it is expected that we
22 will get feedback as well through that basis, meaning we
23 FEMA, not necessarily the county emergency coordinator.

24 CHAIRMAN SMITH: Yes. I am sorry to interrupt.
25 But really, this question about the factories, it does not

1 really address reality as so many of us know it and have
2 experienced it, and just so much time is spent on it. I
3 have worked in factories. No factory can exist immune from
4 the outside, immune from -- isolated from communication.

5 We have a lot to litigate here and it really
6 should be litigated on a practical basis.

7 MS. GAIL BRADFORD: Sir --

8 CHAIRMAN SMITH: I am not telling you you should
9 not inquire. But as triers of the facts, we cannot divorce
10 ourselves from what we know to be the realities of living.
11 This is one of the reasons why we do have this method of
12 finding fact. We do expect to bring some experience into
13 it.

14 MS. GAIL BRADFORD: The basis for this particular
15 question -- and I do not think it is irrelevant at all --

16 CHAIRMAN SMITH: It is not irrelevant, no. I did
17 not say that it was.

18 MS. GAIL BRADFORD: -- came from a fire chief in
19 Manchester, which is just north of York, and he -- they had
20 a fire at a factory there and there was a problem that some
21 of the people working in there did not know about it because
22 they could not hear the fire alarm over the noise of the
23 factory. They could not hear their own fire alarm system.
24 And he was -- the fire chief was sort of upset about the
25 situation.

1 CHAIRMAN SMITH: All right, yes. I bet he should
2 be.

3 MS. GAIL BRADFORD: Yes. And his concern, as
4 expressed to one of the people working with the League when
5 they went around and asked people all these questions, was
6 he thought that people would not be able to hear a siren in
7 the event of an emergency at Three Mile Island.

8 I have not been to that factory, but I was
9 concerned about that based on the concern of the fire chief
10 for that area. And perhaps I should pursue it further
11 directly with the fire chief and find out where this factory
12 is, et cetera, et cetera. But --

13 CHAIRMAN SMITH: No. It is something that should
14 be litigated -- I mean, should be brought up and addressed.
15 But the amount of -- of course, I have taken more time
16 discussing it than you ever have in your question. So I
17 think we had just better move on.

18 MS. GAIL BRADFORD: But I --

19 CHAIRMAN SMITH: However, the point I did want the
20 record to establish was that there was some consideration
21 given to encouraging that very thing, that factory workers
22 who, for example, who feel that they are not included in
23 rational emergency planning speak out, identify that, and
24 make accommodations.

25 MS. GAIL BRADFORD: I could give you my direct

1 experience on that, which is we have been discouraged from
2 including our views by county coordinators, et cetera. I
3 mean, that is --

4 CHAIRMAN SMITH: Okay.

5 BY MS. GAIL BRADFORD: (Resuming)

6 Q Is there any requirement, then, for county
7 coordinators or PEMA or FEMA to hold public hearings for the
8 purpose of taking public input?

9 A (WITNESS ADLER) Yes, this is part of the normal
10 administrative process.

11 Q When do those hearings occur?

12 A (WITNESS ADLER) They occur after the formal
13 submittal by the state of its plans and its county plans to
14 FEMA, with a formal request for the review of those plans by
15 FEMA. The review is then done by FEMA in accordance with
16 the state's request. It is noticed in the Federal Register,
17 and I believe the Federal Register requires a 14-day period
18 for notification prior to the public meeting.

19 CHAIRMAN SMITH: If you recall, Ms. Bradford, we
20 footnoted that proposed FEMA rule in our memorandum and
21 order requiring and urging the parties in this case to meet
22 with the FEMA people who came here and the staff emergency
23 planning people. The trouble is, our case has run ahead. I
24 mean, we have run ahead of the times.

25 BY MS. GAIL BRADFORD: (Resuming)

1 Q Is that the only notification that is given to the
2 general public, though?

3 A (WITNESS ADLER) In the FEMA 44 CFR 350, I believe
4 that is the only formal notification to involve the public.
5 The reasoning is simple. At that point the plans are in a
6 high degree of completion, the highest, presumably, and
7 therefore it is the appropriate time for the public to make
8 comments.

9 DR. LITTLE: I think the question is, will the
10 public -- is the only way the public is going to know about
11 the hearing is by reading the Federal Register?

12 (Panel of witnesses conferring.)

13 DR. LITTLE: How would the public be notified
14 about the hearing?

15 MR COSGROVE: I can clarify that, because I have a
16 copy of the proposed regulation here, if you would like to
17 have me read the section that provides for notification.

18 CHAIRMAN SMITH: You know, I think that might be
19 appropriate. That proposed rule is important in our case.
20 I think it might be appropriate if we take official notice
21 of it in our proceeding itself.

22 And you say it is about to become effective, or
23 has it?

24 MR. COSGROVE: The final draft is available in the
25 Office of the General Counsel. It has been transferred to

1 OMB for review.

2 CHAIRMAN SMITH: As far as --

3 MR. COSGROVE: It should be out shortly.

4 CHAIRMAN SMITH: When you say "shortly," how
5 long?

6 MR. COSGROVE: Hoping within the next two weeks.

7 CHAIRMAN SMITH: All right. When that becomes a
8 final rule, I think it might be appropriate that if that
9 could be transmitted to us, and we can incorporate it into
10 our record by official notice. Since it is so close to
11 being the final rule, it would be much better, I think, to
12 wait until it becomes final. The agency itself has approved
13 it. It is up to OMB to give it its final approval, and that
14 would be with respect to not the substance of the rule.

15 MR. COSGROVE: No. OMB is going to approve it as
16 regards to its impact on the public.

17 CHAIRMAN SMITH: Yes.

18 MR. COSGROVE: And once it is cleared officially,
19 then it will be put in the Federal Register and effective
20 immediately.

21 CHAIRMAN SMITH: All right.

22 Ms. Straube?

23 MS. STRAUBE: I do not have any objection to that
24 procedure at all. I just wonder why the Board would have to
25 take official notice of something that I understand would

1 then be a regulation and would have the force of law.

2 CHAIRMAN SMITH: Yes, it would be a regulation,
3 but not one that we automatically -- official notice is just
4 simply, in this instance, is a convenience to have it
5 identified within our evidentiary record for ease of
6 citation. It probably will not end up in the Code of
7 Federal Regulations for a little while.

8 And you are right, it could be cited, as any
9 regulation or any law. And it also could be officially
10 noticed and so we do it as a convenience.

11 But you are entirely right.

12 And as Dr. Little points out, it indicates that we
13 have considered -- have considered it in our adjudication.

14 WITNESS ADLER: May I answer Ms. Bradford's
15 question directly, using this as a reference?

16 CHAIRMAN SMITH: Yes.

17 WITNESS ADLER: The regional director, in this
18 case my boss, should assure that representatives from
19 appropriate state government agencies, local and county
20 agencies, and the affected utility appear at such meetings
21 to make presentations and to answer questions from the
22 public. These meetings shall be noticed in the local
23 newspaper having the largest circulation in the area, on at
24 least two occasions, one of which is at least two weeks
25 before the meeting takes place and the other is within a few

1 days of the meeting date.

2 Local radio and television stations should be
3 notified of the scheduled meeting at least one week in
4 advance. And it goes on, but that is the crux of your
5 question.

6 MS. GAIL BRADFORD: Thank you.

7 BY MS. GAIL BRADFORD: (Resuming)

8 Q Do you know whether there are any plans to hold
9 public hearings or public meetings on any of the five county
10 plans in this area?

11 A (WITNESS ADLER) There are no specific plans.

12 Q Oh. Would you -- would you require that before
13 you did your findings?

14 A (WITNESS ADLER) No, because it is an integral
15 part of the proposed rule, and so it will be executed, must
16 be.

17 Q No, I just mean that you might want the input from
18 these public meetings for your findings.

19 A (WITNESS ADLER) I am sorry, I am being spoken to
20 by others. Can you restate your question?

21 Q I just meant that you might want the input from
22 these public meetings for your findings.

23 A (WITNESS ADLER) Yes.

24 CHAIRMAN SMITH: She is wondering if it is a road
25 show or are you really trying to get information from the

1 public.

2 I am sorry, I interrupted your consultation
3 there.

4 WITNESS ADLER: One of my colleagues can better
5 address it, maybe once and for all.

6 WITNESS PAWLOWSKI: Findings are made by the
7 associate director, the FEMA associate director. The
8 findings are based upon input from the regional director.
9 So before FEMA presents its findings and determinations, the
10 public meetings are conducted in advance of FEMA's approval
11 of the plans.

12 After the public meeting has been conducted, the
13 regional director will transmit the evaluation of the plans
14 to the associate director, plans and preparedness, at FEMA
15 national office, for final findings and determinations.

16 MS. GAIL BRADFORD: Thank you.

17 I am sorry I was talking to you while other people
18 are talking to you. I know it can be very disconcerting.

19 (Pause.)

20 BY MS. GAIL BRADFORD: (Resuming)

21 Q We talked about the content of the public
22 information program. Do you know when these -- when the
23 public information program will be implemented, when the
24 information will be distributed?

25 A (WITNESS ADLER) I do not know.

1 Q Is there any FEMA requirement in terms of restart
2 whether the information has to be distributed and available
3 to the public for restart?

4 A (WITNESS ADLER) The guidelines do not tie public
5 information dissemination to restart. They are generic
6 guidelines under 0654. If my memory serves correctly, they
7 require something like an annual distribution of pertinent
8 information.

9 Appendix J -- G, sorry.

10 Q So it would be your interpretation that the
11 information would not have to be distributed until,
12 presumably, a year after restart at the most?

13 A (WITNESS ADLER) I understand that information has
14 already been distributed, and that has been essential to my
15 thinking on the matter. There is redistribution that is
16 required on a periodic basis, and that is what I was
17 speaking of.

18 Q What information do you understand has been
19 distributed?

20 A (WITNESS ADLER) From state testimony here, I
21 understand that the state brochure was distributed.

22 Q But you do not understand that the county
23 brochures have been distributed?

24 A (WITNESS ADLER) The county brochures indeed have
25 been put at distribution points and distributed to people in

1 the counties by -- York County is the one that comes to
2 mind. I cannot speak for all of the counties at this
3 point. But those brochures are in the hands of the county
4 emergency coordinators.

5 Q Do you assume that the staff of an emergency --
6 emergency broadcasting system radio station will remain
7 during an evacuation?

8 A (WITNESS ADLER) Yes.

9 Q On what basis do you say that?

10 A (WITNESS ADLER) They are an integral part of our
11 emergency network. They have important duties, and I assume
12 they will discharge them.

13 Q Excuse me. Are there letters of agreement that
14 cover that kind of question?

15 A (WITNESS ADLER) None that I am aware of.

16 (Pause.)

17 Q On page -- on page 25 of your testimony, the
18 answer to question 29, which concerns the Governor's press
19 secretary's role during an emergency, it says the Governor's
20 press secretary does not alert the public or instruct them,
21 the public, on protective actions.

22 Who does prepare that information for the use of
23 the emergency broadcasting system?

24 A (WITNESS BATH) You said page 29?

25 Q Page 25, question 29.

1 A (WITNESS ADLER) I think you should restate the
2 question. We both read this. But I'm not sure what it is
3 you want me to answer.

4 Q As I understand the answer that you gave to
5 question 29, the Governor's press secretary will not play a
6 role in alerting the public or informing and instructing the
7 public on protective actions.

8 A (WITNESS ADLER) (Nods in the affirmative.)

9 Q Who does give information to the emergency
10 broadcasting system radios?

11 A (WITNESS BATH) It is delegated in the plan that
12 the county emergency management agency will implement the
13 protective actions, and not the Governor's press secretary.

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1 Q So the county calls its own EBS.

2 A (WITNESS BATH) That is correct. They have
3 priority in the system over the state.

4 (Pause.)

5 Q Page 28 of your testimony, question 34 relating to
6 support services, especially hospital beds, what studies
7 have you made to determine if enough hospital beds or
8 ambulances will be available if any of the hospitals within
9 the EPZ have to be evacuated?

10 A (WITNESS ADLER) FEMA has made no studies.

11 Q Have you reviewed any studies made by other
12 agencies?

13 A (WITNESS ADLER) No.

14 CHAIRMAN SMITH: Would you pick a logical time for
15 an afternoon break?

16 MS. GAIL BRADFORD: This would be fine, sir.

17 CHAIRMAN SMITH: All right. Let's take our
18 afternoon break of 15 minutes.

19 (Recess.)

20 DR. LITTLE: Ms. Straube, at the time we were
21 talking about the role of a health department it was
22 indicated that Dr. Mueller or Miller would be coming, and we
23 wonder if he is coming.

24 MS. STRAUBE: No. I talked to him the morning
25 that Mrs. Cox and he were to testify, and he had decided

1 that he did not wish to testify. He was not going to cover
2 any topics above and beyond what Mrs. Cox talked about.

3 DR. LITTLE: If we should go back and find
4 references in the transcript to what he might have been
5 answered that have not been answered on the record, we may
6 want to ask for answers to those matters.

7 MS. STRAUBE: Dr. Little, I would point out that I
8 think I was keeping a running list, and I think that
9 everything has been addressed but if somebody wants to
10 bring other things to my attention, I would be pleased to
11 get them answered for you.

12 DR. LITTLE: All right. We will try to take care
13 of any outstanding things on that in the next day or so.

14 CHAIRMAN SMITH: Okay.

15 MS. GAIL BRADFORD: It is my understanding that
16 the Commonwealth's producing witnesses or not producing
17 witnesses is entirely voluntary in this case.

18 CHAIRMAN SMITH: That is right.

19 MS. GAIL BRADFORD: And I just want to state for
20 the record that at the time that Ms. Cox was on the stand, I
21 was under the understanding that Dr. Mueller would also
22 testify, and I therefore did not ask Mrs. Cox questions
23 which I would have asked had I not known, et cetera. And
24 so, you know, I do not see anything I can request in this
25 since you cannot ask the Commonwealth to produce Dr. Mueller.

1 But I just wanted to make it clear on the record
2 that I did not feel I had asked Mrs. Cox everything.

3 CHAIRMAN SMITH: Well, you might have relief. If
4 you -- I do not recall you mentioning it, but if you
5 voluntarily did not ask Ms. Cox questions under the hope
6 that Dr. Mueller would appear, that is your problem.
7 However, if you deferred asking questions on the
8 representation that a better witness would come and then you
9 might have the relief of striking the portions of the
10 testimony you would have cross examined Ms. Cox on. You are
11 not asking that.

12 I just want the record to be clear that we are
13 telling you that you are not helpless. If you relied upon a
14 representation that the question that you had to ask Mrs.
15 Cox would be answered by somebody else, then you might have
16 the relief of having the direct testimony that you would
17 have cross examined stricken.

18 (Board conferring.)

19 CHAIRMAN SMITH: It was not Mrs. Cox. It was
20 Lamison.

21 Looking at transcript page 17,981, the question by
22 Ms. Bradford, I believe, at line 13 is: "In Section B.4,
23 which appears on page X-3, that talks about training for
24 doctors, it says, 'The estimated target audience in
25 Pennsylvania is four doctors.' Why only four?"

1 Answer: "Witness Lamison: I cannot answer that
2 question. I have no knowledge of it."

3 Question: "Can you tell us who would know?"

4 "Lamison: That would be the Health Department --
5 I would think the Health Department would be able to answer
6 that question."

7 So it goes on and then Ms. Straube says, "Well,
8 there will be now, okay, Julia Cox is the Health Department
9 witness that we were going to put on. Dr. Mueller, who is
10 the Secretary of Health, is also interested in testifying.
11 I will see that one of the two of them will have the answer
12 to that question."

13 Now, the "I don't know" answer, the answer to the
14 correct question on cross examination, so you did receive an
15 answer. An answer was not deferred pending upon a promise
16 that somebody else would come and give it to you. So that
17 one particular exchange does not afford any relief to you.
18 I am not referring to the other. But you understand the
19 point I am making.

20 MS. GAIL BRADFORD: Yes, sir. The correct answer
21 in that case was that he did not know.

22 CHAIRMAN SMITH: Right.

23 MS. GAIL BRADFORD: So --

24

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1 CHAIRMAN SMITH: So if that is the exchange that
2 you are talking about --

3 MS. GAIL BRADFORD: No, sir. The exchange I was
4 talking about was -- it did not seem to me that it was --
5 Ms. Cox was the correct witness to pursue on the subject of
6 why the Commonwealth made decisions not to distribute
7 potassium iodide.

8 CHAIRMAN SMITH: That is a problem over which I
9 cannot see any relief that you have at all in this
10 instance. But I was only speaking of the possibility, where
11 you declined to pursue an otherwise appropriate course of
12 cross-examination on the representation that somebody else
13 would appear later with that information, and that is not
14 involved here that I can see.

15 Okay.

16 WITNESS BATH: Mr. Chairman.

17 CHAIRMAN SMITH: Yes.

18 WITNESS BATH: Before we adjourned for the
19 afternoon break, I have been given an understanding that I
20 may have misspoken as far as conveying our understanding of
21 a study of hospitals in the area. I was under the
22 impression that the Intervenor was concerned as to whether
23 or not there had been any surveys or studies other than what
24 I had provided in my direct testimony or over and above.
25 And I would like to bring to the record that there is a

1 lengthy list of hospitals with the bed capacity in the state
2 Appendix E, annex -- or appendix -- it is Annex J.

3 (Panel of witnesses conferring.)

4 WITNESS BATH: It is the State Department of
5 Health Appendix, Appendix 9. And there is a rather lengthy
6 list for hospitals around TMI.

7 Also, the contention that gave rise to this issue
8 was based on Dauphin County and Dauphin County has an
9 extensive list of hospitals which it plans for use in
10 relocation of any hospital that it may require relocation.
11 So there is a rather adequate survey done both by the
12 Department of Health and by the county government of Dauphin
13 County which we have reviewed, and it appears fairly
14 adequate.

15 BY MS. GAIL BRADFORD: (Resuming)

16 Q Did you also review whether there will be
17 sufficient ambulances to evacuate hospitals, for example, in
18 Dauphin County?

19 A (WITNESS ADLER) Yes, we did. And in particular,
20 we reviewed the listing of ambulances numbers given in the
21 Dauphin County plan.

22 (Pause.)

23 Q I have certainly seen listings of package disaster
24 hospitals, but I have never found out what one is. Can you
25 tell us? Do you have that information?

1 A (WITNESS BATH) I can give you a general
2 knowledge. Ms. Dedi Ikeley, who is available, could provide
3 you -- she is on the state staff. She could provide you the
4 expertise as to how they are subdivided and so forth.

5 But a package disaster hospital is essentially the
6 equipment that you see with Hawkeye Pierce on the "MASH" TV
7 program. It is a mobile hospital which is folded up, with
8 equipment, and is being maintained by PEMA at Indiantown Gap
9 and other locations as are specified in the state plan.

10 These in fact can be erected. It requires medical
11 personnel to be assembled to the area, and it can be used to
12 extend hospital capacity if absolutely required.

13 Q Were you finished?

14 A (WITNESS BATH) That I think is sufficient to give
15 you a general knowledge of it. More specific knowledge
16 probably could be sought from the state, and there is also a
17 fairly complete description of it within the state plan.

18 (Pause.)

19 Q Would you turn to page 31 in your testimony, about
20 the middle of the page, in the answer to question 37. We
21 are talking about treatment for large -- for the general
22 population which might have been exposed to large doses of
23 radiation. "Therefore, it is not anticipated that large
24 numbers of people would be exposed to those levels of
25 radiation which would require specialized treatment and the

1 consumption of specialized supplies."

2 Can you tell us why you made that statement?

3 A (WITNESS ADLER) If indeed a mass evacuation
4 occurred, we presume it would be successful and the majority
5 of the people involved would be outside of the exposure
6 area.

7 Q Did you examine the consequences of an accident
8 which develops very rapidly, which has a short time until
9 onset and a long time of duration of release?

10 A (WITNESS ADLER) If you are asking if we have
11 planned using a worst case scenario as a guide, we did not.

12 Q Have you ever determined -- we use the terms
13 "short time until onset of release," et cetera, but it is
14 all relative to the time it takes for preparation. Have you
15 ever determined or quantified what "short time until onset
16 of release" means in terms of the time it takes to actually
17 prepare this area for an evacuation, if there is four hours
18 or if there is -- or whatever the period of time is. Is
19 that a short time or is that the time in which it is
20 inadequate for the state to prepare for an evacuation?

21 (Panel of witnesses conferring.)

22 A (WITNESS ADLER) The duration of times expressed
23 -- this is one frame of reference that is acceptable -- the
24 time durations that were utilized in the Parsons,
25 Brinckerhoff study are acceptable time periods, elapsed

1 times, time to onset of movement of different groups, et
2 cetera. That is one frame of reference that is
3 acceptable.

4 Q Their testimony --

5 A (WITNESS ADLER) I did --

6 Q I believe their testimony was their evacuation
7 time estimates did not include preparation time, but varied
8 by the amount of preparation time.

9 A (WITNESS ADLER) The use of a universal 20-minute
10 period was what I was referring to or thinking of.

11 Q All right. I was including that -- I am using the
12 wrong term. What am I supposed to be saying?

13 MR. ZAHLER: If you will remember, Mr. Rogan
14 distinguished between preparation time and mobilization
15 time, and I think you may have mixed those concepts in your
16 last question.

17 MS. GAIL BRADFORD: Yes, sir, I did.

18 BY MS. GAIL BRADFORD: (Resuming)

19 Q The mobilization time is the time that occurs
20 before zero time -- I cannot remember any more.

21 MR. ZAHLER: As I can -- as I recall the
22 testimony, mobilization time was that time necessary for
23 emergency workers at all levels to take their positions.
24 And given a particular scenario, there may be no
25 mobilization time available or there may be substantial

1 mobilization time available.

2 MS. GAIL BRADFORD: All right.

3 BY MS. GAIL BRADFORD: (Resuming)

4 Q So the question is whether you determined the
5 length of needed mobilization time?

6 A (WITNESS ADLER) We have not.

7 Q And it would be in relation to that length of time
8 that the concept of "short time until onset of release"
9 would be meaningful?

10 A (WITNESS ADLER) (Nods in the affirmative.)

11 Q So since you haven't determined the one, you have
12 not compared the two?

13 A (WITNESS ADLER) We have not compared the two.

14 But I tend to believe that the use or implementation of
15 protective actions is perhaps what you are thinking of, and
16 the implementation of protective action guides.

17 I am sorry. I am guessing at what is your
18 intent. It is not clear to me.

19 (Counsel for ANGRY conferring.)

20 Q Going back to page 31, that sentence I read, that
21 it is not anticipated that large numbers of people would be
22 exposed, and your answer was that you do not anticipate that
23 large numbers of people would be exposed because you think
24 the evacuation will succeed.

25 And the question about the success of the

1 evacuation relates to how much time do they have to prepare
2 before the onset of the release. So the question that I was
3 asking you in that context was, have you figured out what
4 the concept of, or have you quantified the length of time
5 that would be short or long, in quotations, for time to
6 onset? What would be sufficient? What is enough
7 mobilization time?

8 A (WITNESS PAWLOWSKI) Could I ask for a -- maybe
9 could I ask for a clarification of the question? What are
10 you specifically driving at? Are you talking about between
11 the time -- the amount of time that would be available to
12 start evacuation of the population before there was a plume
13 release? Is this what you are specifically talking about?

14 DR. LITTLE: I think the question goes to whether
15 or not there would be sufficient time to announce evacuation
16 or whether or not there would be such a small amount of time
17 that sheltering would be recommended and evacuation would
18 not be possible.

19 WITNESS ADLER: I will address it. It is a
20 judgment value, clearly. The time to onset to any major
21 release has to be, at least in my thinking, a matter of
22 hours to days, and the answer therefore would be yes.

23 WITNESS PAWLOWSKI: Perhaps I could elaborate on
24 this a little bit. The best information is probably from
25 the Nuclear Safety Analysis Center of the Electric Power

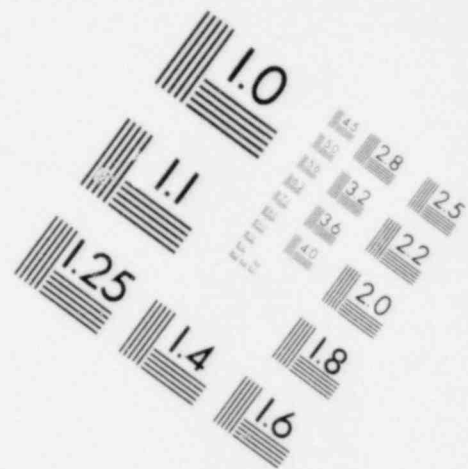
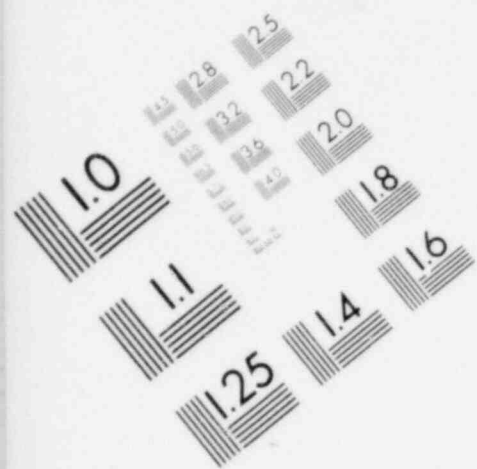
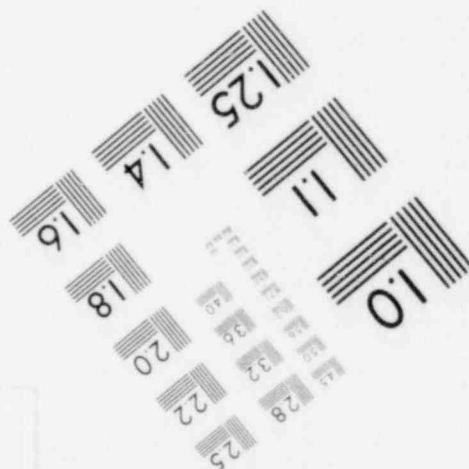
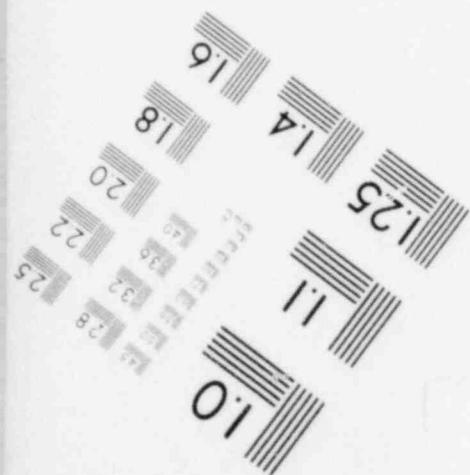
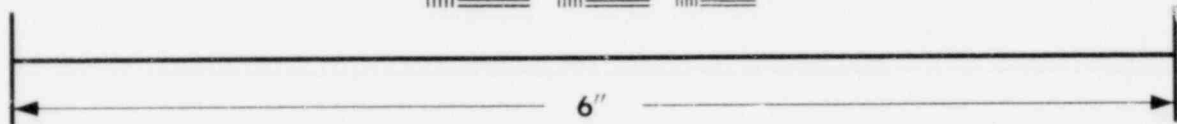
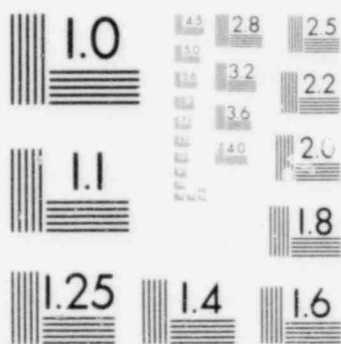
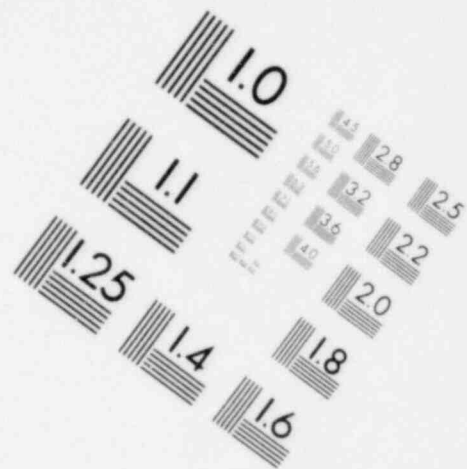
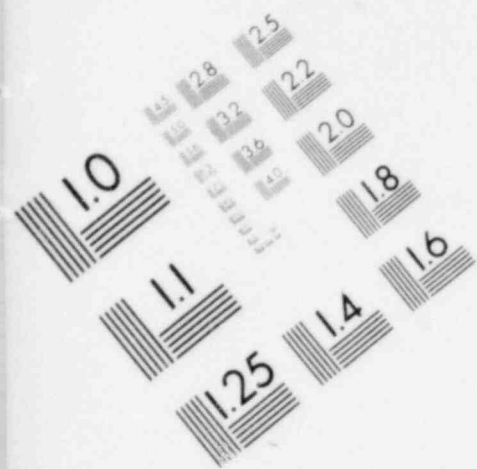
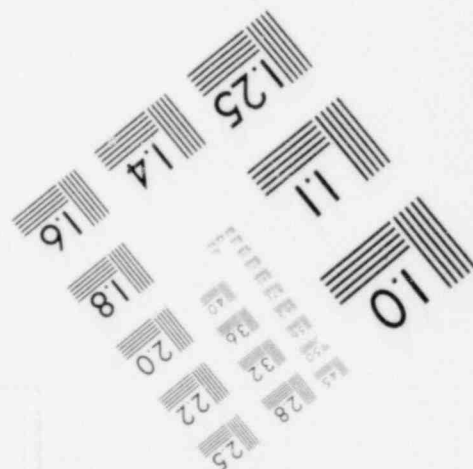
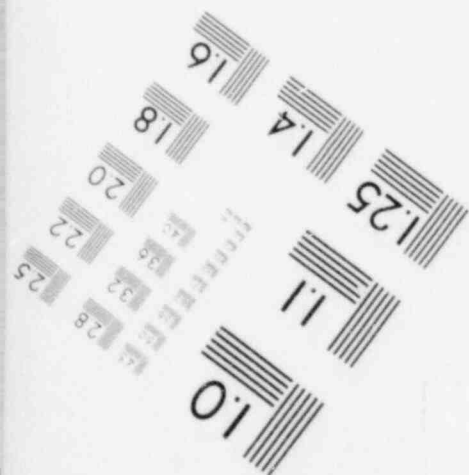
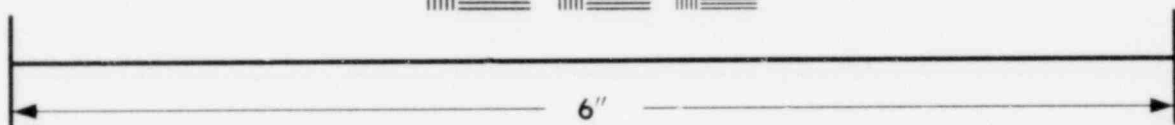
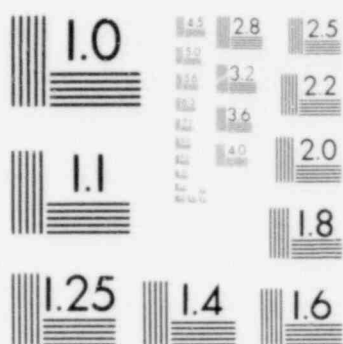


IMAGE EVALUATION
TEST TARGET (MT-3)





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



1 Research Institute, presented to the Nuclear Regulatory
2 Commission on October 1979. They have listed the release
3 categories of the Rasmussen report and the probabilities
4 attached --

5 MS. GAIL BRADFORD: I can just barely hear you. I
6 am sorry.

7 WITNESS PAWLOWSKI: Okay. The best information of
8 this is probably that from the Nuclear Safety Analysis
9 Center of the Electric Power Research Insetitute, presented
10 to the Nuclear Regulatory Commission in October 1979. They
11 listed the release categories of the Rasmussen report and
12 the probabilities attached to them, and also the amounts and
13 times of release.

14 The probabilities have been criticized, but the
15 amount and times of release have not. Of these categories,
16 only two, Rasmussen release categories 8 and 9, involve
17 release as early as 30 minutes after the accident. And
18 these involve only a small fraction of iodine and
19 particulates. For these categories the release is small
20 enough that a major evacuation would not be appropriate,
21 although one within a mile might help.

22 In all the other categories, at least two hours
23 warning of radioactivity release would be available. And
24 depending upon any wind conditions, more time, about two
25 hours, would be available before radioactivity arrived at

1 population centers.

2 Since radioactivity concentrations fall as the
3 reciprocal of wind speed, the worst calculated
4 concentrations will arise for slow speeds, approximately two
5 miles per hour, and a longer warning time is available,
6 let's say seven hours at ten miles -- at a two mile per hour
7 wind.

8 (Pause.)

9 BY MS. GAIL BRADFORD: (Resuming)

10 Q Could you give me the source of that information
11 again, please?

12 A (WITNESS PAWLOWSKI) The source of the information
13 is "Guest Editorial on Nuclear Accident Scenarios and
14 Implications for Emergency Planning," by Richard Wilson,
15 Energy and Environmental Policy Center, Harvard University,
16 Cambridge, Massachusetts 02138, as published in "Health
17 Physics," volume 40, March, pages 287 to 290, 1981.

18 DR. JORDAN: Did he say that the release
19 categories, for example, 1 and 2 would occur much more
20 slowly?

21 WITNESS PAWLOWSKI: Depending upon wind
22 conditions.

23 DR. JORDAN: Than say release categories 8 and 9?
24 Was that --

25 WITNESS PAWLOWSKI: He said in all the other

1 categories at least two hours' warning of that radioactivity
2 release would be available.

3 DR. JORDAN: Okay.

4 BY MS. GAIL BRADFORD: (Resuming)

5 Q Two hours from when?

6 A (WITNESS PAWLOWSKI) Two hours from the
7 identification prior -- two hours after identification of
8 the problem at the plant.

9 Q Is that what it says or is that what your judgment
10 of what it says is?

11 A (WITNESS PAWLOWSKI) That is my supposition.

12 MS. GAIL BRADFORD: I think I might have some
13 questions on this information, and I would like to read it
14 again before I ask questions, if that is possible.

15 CHAIRMAN SMITH: Read what again?

16 MS. GAIL BRADFORD: The information that he just
17 read. I do not mean to ask questions right now. I just
18 thought if I could borrow a copy of it overnight.

19 WITNESS ADLER: We would be delighted to give it
20 to you.

21 MS. GAIL BRADFORD: Thank you.

22 (Pause.)

23 MS. GAIL BRADFORD: I have a couple of questions
24 which you do not have copies of because they fall between
25 the sections I did and the part Mr. Cunningham did. I have

1 them written in my book and then we are going to Mr.
2 Cunningham's cross plan, which was just one that he did not
3 have time to get retyped, and it has a lot of typos in it.
4 It starts -- okay.

5 (Pause.)

6 BY MS. GAIL BRADFORD: (Resuming)

7 Q Page 33 of your testimony under thyroid blocking.
8 Do you know how many people the state intends to distribute
9 potassium iodide to? We know it is emergency workers and
10 institutionalized people -- persons, but do you know the
11 number of persons?

12 A (WITNESS ADLER) The actual number is still being
13 developed by the state, and so I do not know a specific
14 number.

15 Q Do you know if the state has any plans to pretest
16 those persons or to check any medical records for those
17 persons for sensitivity to potassium iodide?

18 A (WITNESS ADLER) No, we do not know.

19 (Pause.)

20 Q In question 41 it says, quote: "Is potassium
21 iodide distributed to the general public in the plume
22 exposure" -- "is distribution of potassium iodide to the
23 general public in the plume exposure EPZ required?"

24 My question is, do you know whether distribution
25 of potassium iodide to the general public is prohibited?

A (WITNESS ADLER) The guidelines in NUREG-0654

1 neither prohibit nor require that all of the general public
2 receives potassium iodide, nor any other thyroid blocking
3 agent.

4 CHAIRMAN SMITH: Is there any possibility that you
5 could use the record that has already been abundantly
6 established on this subject matter for your purposes, rather
7 than go through it again with these witnesses? Or are you
8 trying to establish their knowledge?

9 Are you testing their knowledge or are you trying
10 to develop a record? Because we have had an awful lot of
11 evidence on it and I just wonder how many times we have to
12 go through it. True, there have been different witnesses.

13 MS. GAIL BRADFORD: Yes, sir. Mr. Grimes'
14 testimony was that he did not know the answer to that
15 question. So -- I mean, the state could not say whether
16 FEMA prohibits it. I mean, that would not be within -- I
17 did not ask them. It was just -- I do not feel that there
18 was already a record on that question.

19 (Board conferring.)

20 MS. GAIL BRADFORD: Maybe I am overdeveloping
21 this. I do not know.

22 CHAIRMAN SMITH: It just never occurred to me.
23 What was the question? Does FEMA prohibit the distribution
24 of --

25 MS. GAIL BRADFORD: Whether there is any
regulation.

1 CHAIRMAN SMITH: It just never occurred to me that
2 anyone would think to ask if they have the authority to. I
3 cannot imagine where FEMA would get the authority to
4 prohibit somebody from taking potassium iodide.

5 MS. GAIL BRADFORD: Okay.

6 CHAIRMAN SMITH: I was speaking, however, of the
7 general subject matter of thyroid blocking, about the
8 numbers and that type of thing.

9 MS. GAIL BRADFORD: I really do not have very many
10 questions on this, if that reassures you as to that point.

11 (Pause.)

12 MR. COSGROVE: Chairman Smith, I can add that FEMA
13 has no legal authority to require or prohibit any particular
14 activity in regard to emergency planning, including the use
15 of KI.

16 WITNESS PAWLOWSKI: Excuse me. I thought that
17 question was referencing relation to PEMA, P-E-M-A. Were
18 you referring to PEMA or FEMA?

19 MS. GAIL BRADFORD: Federal Emergency Management
20 Agency.

21 WITNESS ADLER: That is the way I understood you.

22 (Pause.)

23 BY MS. GAIL BRADFORD: (Resuming)

24 Q Is it FEMA's position that with regard to
25 contention EP-5(a), which relates to potassium iodide

1 distribution to the public, that in view that the state is
2 not going to be able to stockpile this year at distribution
3 points --

4 MR. CUNNINGHAM: Maybe I had better take my own
5 cross-examination plan. I do apologize to the Board. This
6 was one part that we put together yesterday in anticipation
7 we would reach it first thing this morning, so we did not go
8 back and retype.

9 CHAIRMAN SMITH: Sure.

10 MR. CUNNINGHAM: It is a bit distorted.

11 CHAIRMAN SMITH: I see no point in having Ms.
12 Bradford inquire on your questions. That does not
13 contribute anything at all. You should feel free. I mean,
14 there is no need for her to inquire on your questions.

15 MR. CUNNINGHAM: Oh, all right.

16 BY MR. CUNNINGHAM:

17 Q Okay. Is it -- on page 35 of your direct
18 testimony, is it FEMA's position that with regard to
19 contention EP-5(a) that, in view of the fact that the state
20 has stated in testimony that they are not able to stockpile
21 this year at distribution points potassium iodide, that
22 until such stockpiling occurs for emergency workers the
23 plans by the county level and the state level are deficient
24 from FEMA's viewpoint?

25 MR. DAHLER: Mr. Smith, I have got an objection to

1 the question. Is the question meant to imply that the
2 state's testimony was that they would not be able to obtain
3 any supply of potassium iodide this year? Because of that
4 is the case, that is contrary to the state's testimony.

5 MR. CUNNINGHAM: That was the direction of the
6 testimony.

7 MR. ZAHLER: As I understood the state's
8 testimony, it was that potassium iodide in the form of
9 Thyroblock was no longer available, but they were attempting
10 to secure a liquid solution to administer potassium iodide.

11 MS. STRAUBE: And in fact, they hope to have the
12 liquid solution available by June of '81, I believe was the
13 testimony.

14 MR. CUNNINGHAM: Okay. Then I will just fashion
15 the question that way.

16 BY MR. CUNNINGHAM: (Resuming)

17 Q Is it FEMA's position that some type of thyroid
18 blocking has to be stockpiled for emergency workers in order
19 for the plan to be adequate, both state and local plans,
20 from FEMA's position?

21 A (WITNESS BATH) This is something I have a little
22 problem in. I read the contention to be that it is going
23 towards the considerable problems of distributing KI to the
24 general public, and that is what my answer was in
25 relationship to that. Since the state did not plan to

1 distribute to the general public, I did not envision the
2 same kinds of problems that the contention is relating to,
3 and I think that is the thrust of the answer.

4 Q But assuming now -- I realize you answered the
5 question that way. But since the time that that contention
6 was filed, the state has changed their position with regard
7 to this matter.

8 My question is then, is it FEMA's position that
9 some type of stockpiling of a thyroid blocking agent must be
10 undertaken before the plan is adequate either at the state
11 or risk county level?

12 A (WITNESS BATH) It is my opinion that -- that what
13 must be covered is in fact, if KI is elected as a protective
14 action option, i.e., it is going to -- it is planned to be
15 administered to emergency workers, and therefore certain
16 decisions on the use of those emergency workers will take
17 place, then KI should be available. If KI is not available,
18 as expressed in the plan, we would not find a deficiency
19 because we would expect other protective action measures to
20 be taken.

21 (Counsel for Newberry Township conferring.)

22 Q Such as what for emergency workers?

23 A (WITNESS BATH) Most important to the answer is,
24 we are going to attempt to ensure that the resources to
25 carry out the plans are adequate, and that is what we are

1 speaking of in the form of KI.

2 Q Okay. But that does not really truly answer the
3 question.?

4 A (WITNESS ADLER) Access control is one means.
5 Prophylaxis is another.

6 Q Such as?

7 A (WITNESS ADLER) Simple moistened gauze as a
8 respiratory protection.

9 Q Okay.

10 (Counsel for Newberry Township conferring.)

11 Q Okay. I want to move, because I think we have
12 been over the thyroid blocking question quite a bit. I
13 wanted to move -- there is one part of the contention that
14 appears on page 39 in question 49. As I read the direct
15 testimony, it is FEMA's position that the contentions set
16 forth in EP-6(e) are valid.

17 And my question to FEMA is, have the York County,
18 Dauphin, Lancaster, Lebanon, and Cumberland County emergency
19 plans been redrafted in accordance with the State Department
20 of Health's decision regarding potassium iodide
21 distribution?

22 A (WITNESS ADLER) We do not know. We have not as
23 yet received the county revised plans.

24 Q Turning to page 42, question 56. This contention
25 is concerning cars passing through decontamination points.

1 Is it FEMA's position concerning this contention that the
2 directing of cars to decontamination points will not impede
3 egress vehicles from the ten-mile EPZ?

4 A (WITNESS ADLER) It is.

5 Q Okay. What studies have been done by FEMA to
6 indicate whether the parking lots located at the mass care
7 centers will be sufficient to provide parking for all cars
8 involved in such an evacuation?

9 (Panel of witnesses conferring.)

10 A (WITNESS ADLER) I verified that the locations are
11 all outside the plume exposure pathway EPZ.

12 Q And therefore FEMA does not expect that by
13 directing these cars into these areas that there will be a
14 traffic jam sufficiently large enough in order to stop or
15 impede egress from the ten-mile EPZ; is that correct?

16 A (WITNESS ADLER) That is correct.

17 Q Is it FEMA's position that the decontamination of
18 vehicles at these centers is not necessary at this point?

19 (Panel of witnesses conferring.)

20 A (WITNESS ADLER) It is not a requirement.

21 Q That was not the question. Is it not necessary,
22 though?

23 A (WITNESS ADLER) It is not necessary.

24 Q Page 44 of the testimony, regarding contention
25 EP-16(a) and EP-16(s). Could you tell me whether FEMA, with

1 regard to those contentions, has done any investigation or
2 informal study or formal studies to determine whether the
3 lead time referred to in the contentions has been factored
4 into the time estimate studies conducted for both the state
5 and, I believe you referred to O.K. Henderson's comments,
6 NRC, which would be Wilbur Smith Associates' study, and the
7 Licensee's study?

8 (Panel of witnesses conferring.)

9 A (WITNESS ADLER) I am sorry, Mr. Cunningham.
10 Would you please rephrase the question?

11 Q Yes. In regard to those contentions, EP-16(a) and
12 16(s), has FEMA conducted any studies, either formal or
13 informal, to determine whether the lead time referred to in
14 the contentions has been factored into the time evacuation
15 estimation -- estimate studies conducted for, I believe
16 Licensee, which would be the most recent study? I believe
17 you also indicated in your testimony that you have seen
18 Wilbur Smith Associates' figures, and also Colonel O.K.
19 Henderson had provided certain figures.

20 In any of those studies, was this lead time
21 factored into the determinations?

22 A (WITNESS ADLER) No. However, these times will be
23 evaluated as a part of the exercise.

24 Q Which exercise are you referring to?

25 A (WITNESS ADLER) The June 2 exercise.

1 Q And from that exercise FEMA will then take a
2 position as to the adequacy of the time estimation, the
3 evacuation time estimates that have been made available to
4 FEMA for review?

5 (Panel of witnesses conferring.)

6 A (WITNESS BATH) As I understand or as we reviewed
7 the Parsons, Brinckerhoff study, the mobilization or the
8 lead time, as I understand it, is basically the difference
9 between the upper and the lower time estimates, and that the
10 mobilization time would affect the decision process. My --
11 I believe it is correct that those factors are not known
12 quantitatively.

13 That will have to be envisioned, as we hope to
14 find in some demonstration during the exercise as to the
15 capability of the counties and the state to mobilize its
16 chain of command capability to implement the plan.

17 Q My question then would be, when you determine what
18 that unknown may be, will that then be taken into
19 consideration with a final review of the time estimation
20 studies made by the various sources that have been referred
21 to in this hearing? And I am indicating -- and in your
22 testimony -- the Wilbur Smith Associates plan and the plan
23 introduced by Licensee.

24 A (WITNESS ADLER) It will be taken into account.

25 (Pause.)

1 Q Move to page 47, question 63. The question is
2 regarding the agricultural plans and FEMA's testimony to --
3 in response to that contention is that farmers only have two
4 choices with regard to livestock, in the event that an
5 evacuation is ordered, and that is to abandon the animals or
6 expose themselves to potential danger from a radiological
7 accident.

8 You go on in your direct testimony to state that,
9 quote: "The farmers' investment should be covered by
10 insurance," with regard to the livestock.

11 My first question is, is FEMA aware of any
12 insurance policy which the farmer could purchase in order to
13 protect his livestock investment from radiological
14 emergencies such as this?

15 A (WITNESS ADLER) No.

16 DR. LITTLE: Are you aware of whether there is any
17 or whether there is not any available for them one way or
18 the other?

19 WITNESS PAWLOWSKI: My understanding is, and I may
20 be incorrect, but that livestock may come under the coverage
21 of the Price-Anderson Act in the event that livestock are
22 permanently disabled or destroyed. I do not have an
23 understanding, a direct understanding from any insurance
24 officials, but I think livestock in that situation would be
25 covered by the Price-Anderson Act. That is my personal

1 opinion.

2 BY MR. CUNNINGHAM: (Resuming)

3 Q You know of no private insurance company or
4 cooperative group that writes the type of insurance that was
5 referred to in the direct testimony, do you?

6 A (WITNESS ADLER) The type of insurance that was
7 referred to in this direct testimony was not specifically
8 tied to loss by radiological incident. It was conventional
9 insurance to cover, in this case, a farmer's property. And
10 we did not, in truth, examine specific insurance options for
11 farmers.

12 Q You are aware that in those types of insurance
13 policies there is a nuclear exclusion area clause that
14 appears, limiting any liability on the part of the insurance
15 company for damages that result as -- that are resulted as
16 part of an accident that involves nuclear energy, are you
17 not?

18 A (WITNESS ADLER) I certainly am aware of exclusion
19 clauses of that kind in a variety of types of insurance
20 policies. It was not a presumption that that was universal
21 when we wrote that testimony.

22 Q And my understanding is that you would not -- that
23 you do not have any information that would -- that you could
24 testify to, that all insurance policies are written with
25 that exclusion within covering general comprehensive

1 coverage on a farm?

2 A (WITNESS ADLER) It is true that I could not speak
3 for universal exclusion from insurance policies of that type
4 coverage which is referred to in this testimony.

5 Q Are you aware that that is basically a universal
6 exclusion within comprehensive liability policies written in
7 the United States?

8 A (WITNESS ADLER) I am not.

9 Q Has FEMA ever made any study at all to determine
10 whether that type of exclusion appears in comprehensive
11 policies throughout the United States?

12 (Panel of witnesses conferring.)

13 A (WITNESS ADLER) I do not know.

14 (Pause.)

15 Q Turn to page 48 of your direct testimony, question
16 6b. The contention basically deals with the mass evacuation
17 centers and their capacities, and the fact that the
18 evacuation plans for Cumberland, York and Lebanon Counties
19 contain assumptions that evacuees will stay with friends or
20 relatives.

21 My point is, FEMA is, with regard to that
22 contention -- agrees with the contention that the plan does
23 -- does make that type of assumption, that mass care centers
24 are based on 100 percent of the population staying within
25 the mass care centers; is that correct?

1 A (WITNESS ADLER) I think the answer is yes. I
2 wonder if you could paraphrase your question so I can be
3 certain?

4 Q Okay. With regard to mass care centers FEMA's
5 position is, and after reviewing the risk county plans, that
6 mass care centers are not intended or designed within the
7 plans to care for 100 percent of the population?

8 A (WITNESS ADLER) I would -- that is correct, yes.

9 Q And it is your best estimate, based on past
10 experience, that about 20 percent of the population would
11 take advantage of a mass care center?

12 A (WITNESS ADLER) Yes. That is actually a
13 conservative number.

14 (Counsel for Newberry Township conferring.)

15 Q I want to move page 52, question 71. That regards
16 contention EP-14(c), regarding testing of the emergency
17 response system. And I believe you may have covered this in
18 part of your testimony earlier.

19 Is it FEMA's position that prior to restart a full
20 and successful testing of all the response agencies and
21 organizations will have to be effected?

22 (Panel of witnesses conferring.)

23 A (WITNESS ADLER) FEMA has no specific legal
24 position on restart of the plant at all.

25 Q Well, in order to meet the criteria of NUREG-0654,

1 is it required that this testing be performed?

2 A (WITNESS ADLER) This is one of the guidelines in
3 0654.

4 Q With regard to that guideline, has FEMA set any
5 standards in order to, if you will, grade the mock
6 evacuation test that is going to take place? I guess the
7 question is, is there any degree of success that has to be
8 met in order to receive your approval?

9 A (WITNESS ADLER) The exercise is graded. It is
10 critiqued and graded, and there is -- well, there is a lot
11 of paperwork on it. But there are 19 points that are
12 specifically rated in what is called an observer exercise
13 critique worksheet. These will be employed at the TMI-2
14 test exercise.

15 Q And as a result of that test exercise, then based
16 upon those 19 points FEMA will -- will do what? Will they
17 say that the plans are adequate, not adequate,
18 insufficient? What exactly will FEMA report?

19 A (WITNESS ADLER) Interim determinations and
20 findings will be submitted. A report of the findings,
21 deficiencies, strengths will be documented.

22 (Panel of witnesses conferring.)

23 A (WITNESS ADLER) That report is submitted to the
24 Nuclear Regulatory Commission.

25 DR. LITTLE: Is this an all or nothing type

1 thing? Does the plan have to be found acceptable on all 19
2 points or two-thirds of the points, or just what constitutes
3 a passing grade?

4 WITNESS ADLER: Excuse me a moment.

5 (Panel of witnesses conferring.)

6 WITNESS ADLER: There is no specific grade, pass
7 or fail. But FEMA will state a requirement that key
8 deficiencies be corrected over time.

9 MR. ZAHLE: Mr. Chairman, I am concerned about an
10 ambiguity in the record, given the nature of some of Mr.
11 Cunningham's questions. There was a question a while back
12 that went to, does FEMA require the testing of every single
13 response agency. I do not think there was a direct answer
14 to that.

15 " And then there was a later question that said, is
16 FEMA going to require this testing, and the answer to that
17 question was yes. It is not clear to me, when the second
18 question said "this testing," whether the witnesses
19 understood that to be a testing in compliance with 0654 or a
20 testing of every single emergency response agency. And I
21 would like the record clarified on that point.

22 CHAIRMAN SMITH: Would you please clarify your
23 answer?

24 WITNESS ADLER: Yes, sir. The testing is of
25 representative elements, not every element.

1 BY MR. CUNNINGHAM: (Resuming)

2 Q And what is it you are referring to when you say
3 "representative elements"?

4 A (WITNESS ADLER) EOC's, for example,
5 communications system network, the warning system in the
6 simulation, representative counties and emergency workers
7 within those counties, not necessarily all groups of
8 emergency workers.

9 (Panel of witnesses conferring.)

10 A (WITNESS ADLER) Just drawing again from the
11 proposed rule, one sentence as an illustration, quote:
12 "Approval may be withheld for a specific site until plans
13 for all jurisdictions within the emergency planning zones of
14 that site have been reviewed and found adequate." That is a
15 prerogative.

16 Q Throughout your study of the local risk county
17 plans, has FEMA been made aware of any letters of agreement
18 at all or understandings at all between employers and the
19 state to allow those individuals which are members of or
20 participate in the emergency response organizations to do so
21 in the event that emergency situations arise regarding --
22 which require their services?

23 A (WITNESS ADLER) Did you say that the agreements
24 you are asking about be those with industry only? Was that
25 what you said?

1 Q Well, I said employers.

2 A (WITNESS ADLER) Employers. I have not seen any
3 such agreements. I do not believe they are part of any of
4 the plans I have read.

5 MR. ZAHLER: Mr. Chairman, with respect to
6 cross-examination, so far I do not know that anyone has ever
7 objected to it on the basis that it is beyond the cope of
8 any contention. I point out that there was some very
9 specific contentions on letters of agreement. Particular
10 letters of agreement were identified as defective or not
11 present for one reason or another.

12 I have not had, in the short time available to
13 check the contentions -- but it is my recollection that
14 there is no contention that alleges a need for letters of
15 agreement between employers and their employees who may be
16 emergency workers.

17 MR. GRAY: Mr. Chairman, there is, however, a
18 contention to the effect that participation by volunteers in
19 exercises may well be impaired by the fact that volunteers
20 cannot get leave from work to participate. And it would
21 appear that this question relates to that sort -- that
22 contention.

23 MR. ZAHLER: Mr. Gray, I am aware of that. The
24 question, however, did not go to exercises and drills. I
25 understood the question to go, during an actual emergency

1 situation, would these workers be available.

2 MR. CUNNINGHAM: Well, I believe that that really
3 -- if we do not have agreements -- I really cannot see a
4 difference. If you do not have an agreement to participate
5 in a test and that is a contention, and Mr. Zahler wants to
6 draw the fine line between that and an actual emergency
7 situation, I really -- I guess I do not see the -- I do not
8 see where the objection is.

9 I can understand that Mr. Zahler would say it is
10 outside of the scope. But obviously it is an important
11 question, I believe. If you are going to allow the question
12 at all, I do not see where it would make much of a
13 difference if it was training exercises versus an emergency
14 situation.

15 CHAIRMAN SMITH: It is a logical next step from
16 the contention. I understand you are not objecting either.

17 MR. ZAHLER: I am not objecting to the question.
18 But I want to make clear that I am not looking for findings
19 in the area that talked about a lack of letters of agreement
20 between employees and employers during an actual emergency
21 situation that would allow those emergency workers to
22 respond.

23 And there is an enormous degree of difference
24 between the contention that Mr. Cunningham has, which is
25 that these workers might not participate in drills, versus

1 saying that these emergency workers would not be available
2 to respond in an emergency because their employer would not
3 let them go. And there is no contention in that area.

4 CHAIRMAN SMITH: I think that is a good point.

5 MR. ZAHLER: Yes, I think I may have missed a part
6 of the question where he said "emergency response" as
7 opposed to "exercise."

8 CHAIRMAN SMITH: I think Mr. Zahler made a good
9 point. It would not --

10 MR. CUNNINGHAM: I understand the ruling from the
11 Board.

12 BY MR. CUNNINGHAM: (Resuming)

13 Q When Dr. Dynes testified some week and a half ago,
14 he indicated that he was of the professional opinion that
15 emergency plans should not set forth in detail, exacting
16 detail, each and every step to be taken by emergency
17 personnel in an emergency condition -- be found in an
18 emergency plan, because there would be a reliance upon the
19 plan instead of taking action that would be needed. I think
20 that was the thrust of his testimony.

21 Does FEMA have a position with regard to Dr.
22 Dynes' testimony in that area?

23 A (WITNESS ADLER) We endorse it.

24 Q I believe one question to -- I believe it is Mr.
25 Adler.

1 CHAIRMAN SMITH: Excuse me. When you say "FEMA"
2 and you say "we," the question was, does FEMA have a
3 position. And you say, "We endorse it." Are you now
4 speaking for the agency? Do you have the authority to
5 speak for the agency?

6 WITNESS ADLER: I do not know. I'm an agency
7 witness and my remarks are in keeping with agency policy as
8 I understand it.

9 CHAIRMAN SMITH: Okay. Well --

10 WITNESS ADLER: I cannot say that we would endorse
11 any specific testimony, we being FEMA. It is the concept.

12 CHAIRMAN SMITH: That was not quite my point. My
13 point is, much of the testimony that we have here, or at
14 least a substantial part of it, boils down to almost policy
15 and not -- you know, policy judgments. And deference I
16 think has to be given to FEMA's policy judgments.

17 MR. COSGROVE: Basically these witnesses, Mr.
18 Chairman, are from the region which has responsibility to
19 assist the planning and do the primary evaluation of the
20 planning in this particular case. And where they are giving
21 their opinion as to matters of this nature, they are giving
22 the region's position.

23 And Mr. Pawlowski is from the headquarters, and if
24 he knows of some contrary policy, I am sure he will cut in.
25 And if I know of a contrary policy, I will cut in.

1 WITNESS PAWLOWSKI: I would like to establish for
2 the record that there is no specific FEMA -- there is no
3 position of FEMA in regard to Dr. Dynes' policy.

4 CHAIRMAN SMITH: Not Dr. Dynes' policy, but the
5 concepts expressed in Dr. Dynes testimony.

6 WITNESS PAWLOWSKI: I am not aware of a specific
7 document which FEMA uses -- FEMA incorporates many concepts
8 in evaluating emergency management. FEMA uses the expert
9 testimony in research of a variety of sources, upon which to
10 determine the best credible basis for providing information
11 and guidance to all people, all government officials
12 involved in emergency planning.

13 FEMA's position is that -- it is my understanding
14 that FEMA fosters the position that FEMA is interested in
15 developing the concept that at the lowest level of
16 government emergency planning is developed in detailed
17 depth, so that responsible officials can carry out their
18 mission.

19 Let me rebacktrack a second. From my own specific
20 professional point of view in terms of emergency planning, I
21 would like to say that I am not specifically in accordance
22 with Doctor -- the concepts brought up by Dr. Dynes as
23 brought out in the question here. I believe that planning
24 does have to be detailed and brought out and plans have to
25 be developed in detail, so that in an emergency people are

1 aware of what their responsibilities are.

2 The more knowledge of the mission and assigned
3 responsibility that a person or individual has in advance of
4 an emergency, the more appropriately they will respond and
5 be able to carry out their assigned mission.

6 CHAIRMAN SMITH: Well, what was the question?

7 MR. CUNNINGHAM: I believe, Mr. Chairman, the
8 question was, does FEMA endorse the position set forth by
9 Dr. Dynes regarding detailed planning.

10 CHAIRMAN SMITH: But did it go to what planning
11 that you were talking about? State, local, federal?

12 MR. CUNNINGHAM: Well, I think that the witness
13 has sufficiently answered the question, be it either state,
14 local or --

15 CHAIRMAN SMITH: Well, I do not think he has. I
16 think it is not necessarily inconsistent with Dr. Dynes, but
17 as I understand his testimony is, or inference that could be
18 made, is that state plans have to be sufficiently
19 nonspecific to accommodate the specifics of county plans,
20 and county plans have to be sufficiently nonspecific to
21 accommodate the specifics of local plans.

22 And each level as you go down requires the
23 latitude for specificity. But at the lowest level you had
24 better be very specific.

25 WITNESS PAWLOWSKI: That is correct.

1 CHAIRMAN SMITH: You really did not say all of
2 that.

3 WITNESS PAWLOWSKI: No. I got sidetracked because
4 I, to tell you the truth, I forgot what the context of the
5 question was in trying to interrelate this. But you have
6 brought out the essence of my understanding.

7 CHAIRMAN SMITH: I would infer from Dynes that he
8 wants to keep everything general all the way down to the
9 lowest level, and you disagree with him on that basis.

10 WITNESS PAWLOWSKI: Correct.

11 MR. ZAHLER: Mr. Smith, I would just point out
12 that in Dr. Dynes' written testimony it is that, while
13 planning should be general, it cannot totally ignore
14 details, particularly at the organizational level. I think
15 Dr. Dynes used the words "organizational level." That may
16 in fact be consistent with Mr. Pawlowski's reference to the
17 local level.

18 CHAIRMAN SMITH: That is a good observation.
19 Whatever Dr. Dynes testified to, we now understand what your
20 position is, however.

21 MR. CUNNINGHAM: I have one last question in this
22 set of cross-examination plan for February 23rd.

23 BY MR. CUNNINGHAM: (Resuming)

24 Q And that is, the question that was answered by Mr.
25 Adler, I believe, concerning local emergency management

1 coordinators had the responsibilities, as he understood it,
2 to contact the EBS stations; is that correct? Is my
3 recollection correct? Either it was Mr. Adler or Mr. Bath.

4 A (WITNESS ADLER) The county emergency management
5 coordinators.

6 Q Okay. Now, earlier in this area of the hearing,
7 Mr. Comey indicated in his testimony that the singular
8 spokesman for the Commonwealth was the Governor or his
9 designee. And then he went on to explain the outline of how
10 information would filter down from the Governor's office to
11 the local level.

12 Is it your understanding -- is it still your
13 understanding that based upon that testimony, which you may
14 or may not have heard, that it is still within the province
15 of each local emergency management director to activate the
16 EBS system?

17 MS. STRAUBE: I am going to object to the question
18 as being slightly misleading. I think the distinction was
19 made in Mr. Comey's testimony between information and
20 instruction, and I think the two are being confused here.

21 BY MR. CUNNINGHAM: (Resuming)

22 Q Well, Mr. Bath, I will just --

23 A (WITNESS BATH) I recognize -- I recognize that,
24 and that is what I was going to answer back, that there

25

1 appears to be some confusion in that. And I do not think
2 that the state government having a spokesman precludes the
3 county elected government from also having a spokesman for
4 -- for both public information as well as protective action
5 response from the EBS.

6 Q Then my final question on this line is, it is
7 possible that within the ten-mile EPZ, which would basically
8 be York and Dauphin County and a small portion possibly of
9 Cumberland County, that York County could activate its EBS
10 station and Dauphin County would not activate its EBS
11 station? Is that possible?

12 A (WITNESS BATH) Yes. The government, i.e., PEMA,
13 is in the role of coordinating their responses. But right
14 now, if York County wanted to activate the EBS, it has
15 agreements to do that for any natural disaster function and
16 so forth. They could make an announcement to the public
17 right now. There is nothing to preclude it.

18 However, the state has projected in the state
19 plans that it expects to cause a coordinated response to a
20 fixed nuclear facility incident.

21 CHAIRMAN SMITH: Was your last reference to PEMA,
22 Pennsylvania Emergency Management?

23 WITNESS BATH: Yes, sir.

24 (Counsel for Newberry Township conferring.)

25 BY MR. CUNNINGHAM: (Resuming)

1 Q And it is your testimony that Governor Thornburg
2 or his designee would have no authority to contact the EBS
3 stations; is that correct?

4 A (WITNESS BATH) That is correct. I do not
5 envision the Governor's press secretary getting on the EBS
6 unless in fact the state has some general information which
7 it wishes to provide through the EBS.

8 Q Then as I understand the plans, all that would
9 happen at this time would be the predesignated, prewritten
10 copy that all EBS stations have at this point, just to make
11 a general announcement. And I am assuming a radiological
12 emergency.

13 A (WITNESS BATH) That is as modified by the
14 incident, as they are intended to do so.

15 Q That is set forth in each one of the plans, that
16 type of information to be used by the EBS stations?

17 A (WITNESS ADLER) It is in the plans.

18 MR. CUNNINGHAM: Okay. I have no further
19 questions with regard to February 23. I do not know how you
20 are going to handle the other cross-examination on that set
21 of testimony or whether you are going to move into the March
22 16 testimony.

23 (Board conferring.)

24

25

1 SMITH: It seems to me, unless it can be pointed out
2 differently by the parties, that the testimony should be
3 regarded as one piece of testimony. It was submitted in two
4 parts for convenience, not because of a logical division of
5 subject matter. So if we are incorrect on that, point it
6 out; but it seems to me that is the most logical thing, for
7 you to complete your cross examination.

8 MR. GRAY: That is correct, Mr. Chairman. That
9 was the intent. It was simply a matter of ability to
10 produce the testimony at specific times. That is why it
11 worked out with two pieces rather than one.

12 CHAIRMAN SMITH: We will whip through this in the
13 next few minutes and we will proceed.

14 (Laughter.)

15 MR. CUNNINGHAM: I believe the Board has a copy of
16 the cross examination plan. At the top it has 3/16/81.
17 This is a bit better organized. This was the information I
18 lost the other day, too.

19 BY MR. CUNNINGHAM:

20 Q I will direct the witnesses to page 5 of their
21 direct testimony, and this set of questions that I have will
22 refer to questions 4 through 8. FEMA in answering
23 Contentions EP-14(H, KK and MM) seems to state by
24 implication that most of the workforce population groups are
25 highly mobile in that they commute to and from work each

1 day, and that would be within the ten-mile EPZ.

2 Has FEMA investigated or are they aware of any
3 studies that show how much of the population within that
4 ten-mile EPZ actually did commute outside of the EPZ?

5 A (WITNESS ADLER) We have not as an agency done
6 this, but we are very sensitive to the studies that have
7 been done which include the analysis, most recently the
8 Parsons, Brinckerhoff time, motion, motion, time, whatever
9 you call it.

10 Q So you are aware of other agencies who might have
11 taken that into consideration, other not only agencies but
12 independent study groups.

13 A (WITNESS ADLER) Yes.

14 Q Now, I believe in your testimony in this area you
15 make reference to the time estimates that were performed by
16 -- studies that were performed by Wilbur Smith Associates
17 and some information that was provided to you by Col. O.K.
18 Henderson concerning population within the ten-mile EPZ area.
19 Did either of these two studies, if you know, take into
20 consideration the transient -- not transient, the population
21 that lives outside of the area in a commuting sense?

22 A (WITNESS BATH) The last part of that question?
23 The population?

24 Q The population which commutes outside of the
25 ten-mile EPZ area. Did those studies take that factor into

1 consideration?

2 A (WITNESS BATH) In that there is a difference
3 between day and night evacuation, I would say that that is
4 taken into account.

5 Q Okay. Since we are on that particular point, has
6 FEMA compared the Wilbur Smith Associates study to that
7 provided by Licensee in order to make a determination as to
8 the relative -- as to how each of the studies relate to one
9 another and whether the assumptions made in each plan are in
10 compliance with NUREG-0654?

11 A (WITNESS ADLER) No, we have not attempted to
12 cross-compare or cross-index these studies. Rather, we have
13 looked to the completeness of each study on its own merits,
14 and at this time have the opinion that the Parsons,
15 Brinckerhoff study is the most comprehensive available study.

16 (Pause.)

17 Q I will move to questions 10 through 14, and this
18 is with regard to Contentions EP-16(N) and (T). I believe
19 that they refer to the various atmospheric conditions to be
20 taken into consideration in evacuation time studies. FEMA
21 in responding to these two contentions has taken the
22 position that NUREG-0654, Planning Standard J10M requires
23 that the time estimates for evacuation be made under various
24 atmospheric conditions.

25 FEMA in further responding to the contention

1 states it is assumed that responsible officials during
2 periods of meteorological or other impediments to evacuation
3 will implement the best protective action under the
4 circumstances.

5 To which officials is FEMA referring to in this
6 particular testimony? Are they state officials, local
7 officials, or all those officials as a class?

8 A (WITNESS ADLER) We are directly referring here to
9 FEMA's communications with the Bureau of Radiation
10 Protection.

11 Q Now, as I understand your answer, also in that
12 question it is FEMA's position that at the present time the
13 siren warning system in place is deficient and not adequate;
14 is that a fair statement?

15 (Panel of witnesses conferring.)

16 A (WITNESS ADLER) The system as it exists at this
17 time is not adequate.

18 Q Okay. Now, if the siren system which is
19 anticipated to be installed by Licensee to meet the
20 requirements of NUREG-0654, Standard E in Appendix III is
21 met, is it FEMA's position, Federal Emergency Management
22 Management's position that the coverage will have to be 100
23 percent of the area within the ten-mile EPZ or something
24 less?

25 A (WITNESS ADLER) I would have to read the language

1 of the guideline, but my memory suggests that it says
2 essentially complete coverage. I would have to read it.
3 Essentially complete.

4 Q Now, the topography out in my area, which is
5 Newberry Township, is hilly, valley and rolling hills. Now,
6 the warning systems cannot be heard in all the areas in my
7 township. Is it FEMA's position, Federal Emergency
8 Management Agency's position that some type of secondary
9 warning system will have to be in place in order to meet the
10 requirements of NUREG-0654?

11 A (WITNESS BATH) We have not seen a division or a
12 layout of the sirens which have been proposed by the
13 Licensee, so we do not know that there are gaps or various
14 inadequacies that a secondary system would have to be
15 involved.

16 Q Is this going to be part of your testing procedure
17 that you are going to undergo some time this summer after
18 the system is installed in your review of the warning siren
19 system?

20 A (WITNESS ADLER) Please restate your question.

21 Q Okay. I believe that Mr. Bath answered my
22 question that they have not had a chance to review
23 Licensee's positioning of the various warning -- of siren
24 systems. My question was then: If that is not true, is part
25 of your testing this summer -- and I believe somewhere in

1 your testimony you state that you will test the warning
2 system to determine adequacy -- is that going to be one, is
3 topography, or are you actually going to do field tests to
4 determine whether it can be heard in the area?

5 A (WITNESS ADLER) Yes.

6 Q Okay. Then my question is that because of some --
7 the topography of the area, there are some dead spots --
8 will consideration be given to secondary warning?

9 A (WITNESS ADLER) Yes.

10 Q Okay. Will that be required by FEMA in order to
11 meet the requirements in NUREG-0654?

12 A (WITNESS ADLER) Yes. The criteria for
13 acceptance, B.1.C. on page 3-3, includes special
14 arrangements to be made to assure 100 percent coverage
15 within 45 minutes of the population who may not have
16 received the official notification within the entire plume
17 exposure EPZ.

18 Q And then at that point is it my understanding,
19 because throughout your testimony in all the questions
20 referring to the warning system, protective actions and
21 warning of protective actions, you state that Licensee is
22 developing a warning system in order to meet the
23 requirements of NUREG-0654, and then you really do not
24 address the testimony as to the plans, various conditions
25 where local police and fire forces go out and orally,

1 individually warn people of the situation.

2 Are you saying now that if in fact you make the
3 study and there are dead areas within the ten-mile EPZ, that
4 you will again then have to review the local plans in order
5 to determine whether notification is possible?

6 A (WITNESS ADLER) Not necessarily. Recommendations
7 from FEMA based on findings of that test made to FEMA may be
8 sufficient.

9 Q Will FEMA have any type of overview to determine
10 whether anything happens at the Pennsylvania Emergency
11 Management Agency level in order to ensure that the local
12 and municipal plans provide for that type of notification?

13 A (WITNESS ADLER) Yes, it is a requirement.

14 Q Okay. I will move to questions 15 and 17. That
15 is regarding Contention EP-14(C), which involves the posting
16 of evacuation maps and semi-annual distribution of
17 evacuation routes.

18 It is my understanding after reading your direct
19 testimony that FEMA's position with regard to this
20 contention is that the contention sets forth deficiencies
21 within the York County plan. Is that correct?

22 A (WITNESS ADLER) Yes.

23 Q Is it FEMA's position that the York County
24 planners must state within the plan that it does have a
25 posting of radiological emergency protection information,

1 including evacuation routes, must be delineated at some time
2 and a person responsible for doing so must be indicated
3 within the plans and within the plan itself, how the
4 materials are to be distributed?

5 (Panel of witnesses conferring.)

6 A (WITNESS BATH) I had trouble following your
7 question.

8 Q I am sorry, it is a three-part question. I will
9 break it up.

10 Is it FEMA's position that the York County Plan
11 must state within it that posting of radiological emergency
12 protection information, including evacuation routes, must be
13 delineated as to when it will be done?

14 A (WITNESS BATH) Posting is a suggested method of
15 providing information to transient groups. What FEMA's
16 position would be is how, in fact, such transient groups are
17 to be reached. At this point we are not satisfied with the
18 York County plan that it has provided a methodology to reach
19 such transient groups, but we will presume that they would
20 have to have posting. There may in fact be alternate
21 methodologies.

22 Q So at least for that aspect of the plan you are
23 not satisfied at this point and something will have to be
24 developed.

25 A (WITNESS BATH) That is my -- yes.

1 Q Further in that testimony you indicate that FEMA,
2 the Federal Emergency Management Agency, will monitor state
3 and local programs to ensure that the programs with regard
4 to handing out of materials in radiological emergency
5 conditions will be accomplished. I believe that appears on
6 page 14 of your direct testimony.

7 How will FEMA monitor this? And if they find that
8 it is not being completed by the local governments, what
9 action will they take?

10 A (WITNESS ADLER) We are in continuous dialogue
11 with the state. We will be on all inadequacies in the
12 plan. And to the extent that we bird-dog the problem, it
13 will be corrected through the cooperative channels that we
14 have established.

15 Q And if the deficiency is not taken care of, then
16 it is your indication that that will be reported to the NRC:
17 is that correct?

18 A (WITNESS ADLER) That is correct.

19 Q I believe in that same testimony there is some
20 mention of public school curriculum, providing for
21 distribution of emergency information.

22 A (WITNESS ADLER) I did not catch the word, school
23 something?

24 Q Yes. In the school curriculum itself. There is a
25 provision in your direct testimony for the distribution of

1 emergency information. My question is how will FEMA
2 determine whether the public school curriculum provides for
3 the distribution to the student population information
4 regarding radiological emergency protection, information
5 including evacuation routes?

6 A (WITNESS BATH) If my memory serves me right that
7 is public education, is it not, not public information.

8 Q Public school curriculum. You state that within
9 the curriculum itself there will be distribution of
10 emergency information. At the top of page 14.

11 A (WITNESS ADLER) Yes. I am going to paraphrase
12 your question to make sure I understand it. You are asking
13 by what methods we monitor.

14 Q That is basically the thrust of the question.

15 A (WITNESS ADLER) In much the same way as I
16 outlined in answer to your previous question, and with
17 respect to deficiencies and responses by FEMA to continuing
18 deficiencies, I refer you to the proposed Rule 44 CFR 50.

19 Q Okay. I guess the bottom line to all of this
20 questioning is if the Federal Emergency Management Agency
21 does determine that the state and local programs are not
22 being carried out to provide the public with general
23 radiological emergency information, what actions would FEMA
24 take and expect to be taken if such deficiencies are found?

25 A (WITNESS ADLER) In the rule it talks about a

1 four-month countdown -- maybe I had better read it to be
2 absolutely sure what I am talking about.

3 (Panel of witnesses conferring.)

4 Section 350.13 of Volume 45, number 123, that
5 Federal Register notice. 44 CFR Part 350. If at any time
6 after granting approval of the state plan, the associate
7 director determines on his or her own initiative, motion or
8 on the basis of information another person supplied that the
9 state or local plan is no longer adequate, et cetera, or is
10 no longer capable of being implemented, he or she shall
11 immediately advise the governor of the affected state and
12 NRC of that initial determination in writing. It goes from
13 there.

14 Q Okay.

15 A (WITNESS ADLER) The time frame which I mentioned
16 -- oh. FEMA shall spell out in detail the reasons for its
17 initial determination and shall describe the deficiencies in
18 the plan or the preparedness of the state.

19 If after four months from the date of such an
20 initial determination the state in question has not either
21 corrected the deficiencies noted or submitted an acceptable
22 plan for correcting those deficiencies, the associate
23 director shall withdraw approval and shall immediately
24 inform NRC and the governor of the affected state of the
25 determination to withdraw approval and shall cause to be

1 published in the Federal Register and the newspaper having
2 the largest daily circulation in the affected state notice
3 of its withdrawal of approval.

4 Q Okay. I will move on to question 18, go on to
5 question 18 next.

6 Most of your prior responses have answered
7 questions I have had in the cross examination plan except
8 one, and maybe again this is a policy, a statement which
9 you, Mr. Adler, cannot really answer for the agency.

10 Is it FEMA's position -- and the contention is
11 regarding the siren warning system and its adequacy of
12 cover, and within the direct testimony you or Mr. Bath in
13 your testimony state that the system has to be sufficient or
14 adequate.

15 My question is has anybody determined what is
16 sufficient, what is adequate, and whether these two criteria
17 will have to be met prior to restart?

18 A (WITNESS ADLER) I can refer you to the Appendix 3
19 from which I read some minutes ago under item B, criteria
20 for acceptance. I am not certain what part of that is most
21 directly applicable to your question. Perhaps if you
22 restate your question I can pick a portion and read it.

23 Q Okay. Have FEMA determined, using your direct
24 testimony, that the system has to be either sufficient or
25 adequate? Is there a definition within your agency as to

1 what those two terms mean or what did you mean by the use of
2 those two terms?

3 (Panel of witnesses conferring.)

4 A (WITNESS ADLER) I would say sufficient refers to
5 the minimum acceptable design objectives as stated in item
6 2, the 15 minutes and 45 minutes. As to distinguishing
7 between the words "sufficient" and "adequate," at this time
8 I do not see a distinction.

9 Q Okay.

10 A (WITNESS ADLER) I would use them interchangeably.

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1 Q Then the second part of the question is, will FEMA
2 have to make the determination that the system is sufficient
3 or adequate prior to restart of Unit No. 1?

4 A (WITNESS ADLER) Excuse me a moment.

5 (Panel of witnesses conferring.)

6 A (WITNESS ADLER) No.

7 Q Okay. Move to questions 19 through 21. It is
8 with regard to the contention EP-14(t). In response to that
9 contention, the Federal Emergency Management Agency
10 indicates that it will provide to the Nuclear Regulatory
11 Commission an evaluation of the new warning system's
12 capabilities and will advise all parties with a need for
13 corrective action.

14 By "parties," to which parties are you referring?
15 Licensee and state or to all parties within this action?

16 A (WITNESS ADLER) Would you guide me to where the
17 word is used?

18 (Pause.)

19 A (WITNESS PAWLOWSKI) "Upon installation" --

20 Q It is on page 16, just before question 21, quote:
21 "FEMA will provide the NRC with an evaluation of the
22 system's capabilities and advise parties of the need for
23 protective action."

24 A (WITNESS ADLER) The parties are really FEMA and
25 NRC. I apologize for not being more specific in our

1 testimony.

2 Q Move to question 22 to 23. The question regards
3 EP-14(y). In response to this contention, the Federal
4 Emergency Management Agency indicates that it recommends
5 that the York County emergency plan delineate the term "York
6 County director" and the "York County emergency management
7 coordinator" and merge the two into one uniform name in
8 order to avoid confusion, since the two persons -- two
9 individual titles are to be held by the same person.

10 Has York County indicated that it is willing to
11 take that action at this time?

12 A (WITNESS BATH) In discussion with the York County
13 coordinator, he indicated that in fact this was caused by
14 the constant changing of the plan, and that in fact he
15 planned to clear this up in another version of the plan. So
16 I would expect the new plan to have cleared that all up.

17 Q And furthermore, in that same testimony, to
18 questions 22 and 23 FEMA indicates that within each of the
19 risk counties the public information officer, as the
20 designated spokesman for the county, is to provide official
21 information, advice and instruction to the public. My
22 question is, does FEMA take any position with regard to the
23 type of information which the public relations officer
24 should release to the public without prior approval having
25 been received from some other agency?

1 A (WITNESS ADLER) We do not take a specific
2 position.

3 Q I will move to questions 24 and 25. My only
4 question in that area is that you indicate in your direct
5 testimony with regard to that contention that 70 percent of
6 the Dauphin County population is served by the present
7 warning system.

8 My question is, how did FEMA determine that that
9 was the correct percentage of the population being served by
10 that present warning system?

11 (Panel of witnesses conferring.)

12 A (WITNESS BATH) DCPA, the Defense Civil
13 Preparedness Agency, had a program status report which
14 discussed -- and this was an estimate provided by Dauphin
15 County as to the adequacy of the population coverage of the
16 civil defense siren system, and that is where the figure was
17 taken from.

18 MR. CUNNINGHAM: Mr. Chairman, that is right
19 before the testimony regarding implementation of protective
20 actions. Ms. Bradford indicated to me that there may be
21 some things left pending, and maybe a point to break off
22 with this cross-examination in light of the time. I do not
23 know whether the Board was going to sit past 5:00 tonight or
24 not.

25 CHAIRMAN SMITH: We want a few minutes this

1 evening to go over the request to Mr. Basdekas. Unless you
2 have a particular reason, I think we should continue. I
3 think we should try to adjourn by 5:30, unless you have a
4 particular reason for -- so if you continue the
5 cross-examination to 20 after 5:00, then give us a few
6 minutes' recess, we will meet the 5:30 deadline. So if you
7 do not mind, just continue.

8 MR. CUNNINGHAM: Okay.

9 BY MR. CUNNINGHAM: (Resuming)

10 Q The next set of questions in the plan refer to
11 questions 27 through 30, regarding contention EP-14(d).
12 This contention basically deals with the assembly and
13 consultation of appropriate members of the county staff and
14 elected officials in the event of an emergency situation.

15 FEMA, in responding to this particular contention,
16 states that officials will be contacted by the county
17 director by means of telephone communication. And moreover,
18 it is FEMA's position that telephone communication is
19 adequate, since these individuals will be contacted
20 immediately after the onset of an emergency situation, prior
21 to the public learning of the incident, and thus you would
22 not have a situation with the jammed telephone grids.

23 My question is, did FEMA, in preparing its direct
24 testimony, take into consideration that in the local
25 community in and about Three Mile Island that there may be

1 active monitoring of frequencies used by Metropolitan
2 Edison, its employees, and thus the general public would be
3 aware -- could be aware of an onsite emergency condition?

4 A (WITNESS ADLER) We did not take that into
5 account. We did not.

6 Q And there -- well, that answers the question.

7 Now, did FEMA, in preparing this testimony or in
8 reviewing the local county plans, have any information or
9 seek any information regarding the time that it took during
10 the TMI-2 incident for each of the risk counties to notify
11 its county commissioners of the pending radiological
12 emergency at that time?

13 (Panel of witnesses conferring.)

14 A (WITNESS ADLER) That was not taken into account.

15 Q Is it my understanding that the Federal Emergency
16 Management Agency -- based upon your prior testimony, this
17 is one of those undetermined time elements that we do not
18 know how long it is going to take until this test that is
19 going to take place in June is effected?

20 A (WITNESS ADLER) Could you restate the question?

21 Q Yes. Is this, the time that it is actually going
22 to take from notification being received through the
23 channels to the appropriate person in each of the risk
24 counties -- how long will it take that person then to
25 contact each one of the commissioners or whatever -- in York

1 County, it is the three commissioners who are involved; in
2 other counties it is a little bit different.

3 But has anybody within FEMA done any type of
4 studies upon past instances that may not be radiological,
5 but may have required the communication or contacting of
6 these individuals in an emergency situation?

7 A (WITNESS ADLER) Not to my knowledge, and I would
8 expect this to be an important element in our exercise.

9 (Counsel for Newberry Township conferring.)

10 Q Would FEMA take into consideration that that
11 exercise would be one which would be announced and parties
12 involved in the test itself would know that their
13 participation is going to be required, and therefore there
14 may be people who are awaiting the test to take place and
15 you would not actually have a fair and adequate graph on how
16 long this type of communication would take?

17 A (WITNESS ADLER) An exercise certainly falls short
18 of the real situation in that, among other respects. So the
19 answer would be, yes, it is a simulation. To the extent
20 that a simulation can be extrapolated and its findings
21 useful, it will be.

22 We all recognize that it is not a real accident
23 and that the people playing in the exercise are by and large
24 alerted to the roles beforehand.

25 Q Is there any reason why, in order to -- is there

1 any reason why, in order to make a determination as to this
2 critical aspect which you have identified, just testing that
3 aspect of the plan unannounced? In other words, in order to
4 get an accurate evaluation of the time lapse to conduct the
5 test unannounced in order to get to these critical key
6 personnel within each one of the risk counties?

7 A (WITNESS ADLER) The element of surprise is very
8 important in making this exercise work well. During the
9 coming weeks, my staff, working with General Smith's staff
10 in the development of a scenario for the June 2 exercise,
11 will be particularly sensitive to those areas where surprise
12 can be introduced in the exercise.

13 CHAIRMAN SMITH: If you have testimony -- I mean,
14 if you have -- I can see we may be causing some difficulty,
15 and -- if it is important that you pursue it, we can pursue
16 it in a private session. What if he has a surprise
17 planned?

18 MR. CUNNINGHAM: I understand. Okay. Could we
19 just defer this line of questioning until we can talk about
20 it?

21 CHAIRMAN SMITH: Think about it, because there are
22 provisions where we can have a session -- but I would think
23 there would be a very strong public interest in not going
24 into it any more than you have to.

25 MR. CUNNINGHAM: Understood.

1 I will move, then, to questions 34 and 35, with
2 the proviso that I would have a chance to discuss with the
3 Board in a closed session that part that I was leading to in
4 the cross-examination plan.

5 WITNESS ADLER: Mr. Chairman, I can add that FEMA
6 has the right to require drills. And if you will recall
7 from earlier testimony, a drill tests a portion of an
8 exercise. And if this area is especially important to us
9 with respect to an element of surprise, we can dictate that
10 drills be in fact held before and after the full-scale
11 exercise that we have been discussing.

12 CHAIRMAN SMITH: And you would.

13 WITNESS ADLER: And we would.

14 CHAIRMAN SMITH: All right.

15 BY MR. CUNNINGHAM: (Resuming)

16 Q Okay. I turn your attention, then, to questions
17 31 through 35, which appear beginning on page 20. And it is
18 a long contention, involving communication and the Amateur
19 Radio Association's involvement in the local plans and the
20 911 telephone system.

21 A (WITNESS ADLER) I am really sorry. I am having
22 trouble hearing your statement.

23 Q This area of cross-examination a contention that
24 revolves about the Amateur Radio Clubs involved in the local
25 plans and the 911 operations system. And as I read your

1 testimony, it is your position, is it not, that with regard
2 to at least the letters of agreement that are specified in
3 NUREG-0654, standard A, criterion A -- criterion A, that
4 letters between the counties and RACES must be obtained in
5 order for the plan to be adequate pursuant to your review?

6 A (WITNESS ADLER) That is true.

7 Q Okay. Do you know whether, in York County, that
8 has been provided by the RACES organization?

9 (Panel of witnesses conferring.)

10 A (WITNESS BATH) At this time, no. In discussion
11 with Mr. Curry, he was pursuing all such letters of
12 agreement as were discussed in this testimony.

13 Q As I understand it, that would be true of all the
14 other five risk counties that rely upon a RACES type group
15 for communications, that they would also have to have
16 letters of agreement?

17 (Panel of witnesses conferring.)

18 A (WITNESS ADLER) We do not know at the moment. We
19 can research it and try and get you an answer.

20 Q Okay.

21 A (WITNESS ADLER) It is certainly a function to the
22 extent of which RACES is used in each county.

23 Q In your review of the plan, have you determined
24 that RACES members will augment the communications staff
25 within the EOC centers themselves?

1 A (WITNESS ADLER) I do not remember whether it is
2 within the EOC, but I know that they will augment.

3 Q Okay.

4 I believe in your direct testimony the Federal
5 Emergency Management Agency takes the position that the
6 alternate county EOC located in Hanover is not required to
7 be maintained in a ready condition. Could you indicate what
8 means of communication are -- would be acceptable for FEMA
9 at this alternative site? This would apply equally to any
10 alternative EOC site.

11 A (WITNESS ADLER) I would like to discuss it a
12 moment.

13 (Panel of witnesses conferring.)

14 A (WITNESS ADLER) The fact that there is in fact --
15 since there is no requirement for an alternate EOC, there is
16 in turn no requirement for communications means.

17 (Pause.)

18 Q Within the York County plan as drafted at present,
19 the plan indicates that amateur radio operators will be
20 assigned to each school district in order to coordinate the
21 utilization of school buses. Has your review of the plan
22 determined whether any of the local school districts have
23 had an operator assigned to them?

24 A (WITNESS ADLER) No.

25 Q Okay. Has your review of the plan determined that

1 even in the event that an operator is assigned to the school
2 district, do the local school bus drivers have any
3 communication equipment within the buses themselves or at
4 home in order -- with which to communicate with the radio
5 operators assigned to the schools?

6 A (WITNESS ADLER) We do not have that information
7 in the plans that we have reviewed for the -- as a basis for
8 this testimony.

9 Q Now, in view of the fact that the York County plan
10 indicates that the York County vo-tech school will be used
11 as a facility in order to direct mass transportation during
12 a general evacuation, have you determined whether -- since
13 the operators being assigned to these schools are to
14 coordinate that type of activity, do you feel that that
15 creates an inadequacy within the plan itself, that there are
16 no visible means of communications within individual buses
17 that may be en route?

18 A (WITNESS ADLER) I ask your indulgence. I would
19 like you to rephrase that question for me, please.

20 Q I guess my real question is, is there any FEMA
21 requirement within your regulations and after reviewing
22 NUREG-0654, that there be such a system of
23 radiocommunication between individual school districts and
24 their buses?

25 A (WITNESS ADLER) No.

1 Q Okay. For the record, I will spell vo-tech. For
2 the record, it is v-o, dash, t-e-c-h.

3 So in other words, even if the plan does not have
4 a system of communications outlined and whether or not that
5 system even is in place, as far as your review is concerned
6 and as far as the Federal Emergency Management Agency is
7 concerned, that is not a criterion of 0654 or any of the
8 other planning standards, correct?

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1 (Panel of witnesses conferring.)

2 A (WITNESS ADLER) We need to know their system of
3 communications in order to make a judgment about the
4 adequacy of their plans.

5 Q So what you are saying is it would be critical to
6 know whether these buses have radiocommunication
7 capabilities.

8 A (WITNESS ADLER) It would be critical to know by
9 what communications means the necessary information is
10 passed to bus drivers, for example.

11 Q Furthermore, in your direct testimony -- I believe
12 you have alluded to it before -- the York County plan
13 indicates 79 trunk lines are fed into the EOC center, 49
14 which service the 911 system and 6 which are used for
15 standby rumor control.

16 First of all, is it my understanding that even
17 though there may be 49 lines into the 911 system, there
18 would be no more than two operators at any one time to
19 service those two lines?

20 A (WITNESS BATH) Yes. It was my understanding that
21 there is a two-position console which the 49 lines go to.

22 Q But as far as reporting information, if all the 49
23 lines lighted up at once there would only be two operators
24 to service those 49 calls.

25 A (WITNESS BATH) No, that is not so in the sense

1 that the 911 operator has the capability of transferring
2 those calls to other persons in the EOC or dispatch
3 operators or whoever might be available off her switch.

4 Q Okay. Has FEMA verified whether there are 79
5 trunk lines to the York County EOC?

6 A (WITNESS ADLER) We have not counted them.

7 Q And I assume the same applies to the Dauphin
8 County ECC.

9 A (WITNESS ADLER) Yes, Mr. Cunningham. The
10 presumption is that the information given to us is accurate.

11 Q Okay. And the same then would be true with
12 regard to the dedicated circuits between the EOC and the EBS
13 stations in each of the five risk counties. You assume that
14 that is a correct statement.

15 A (WITNESS ADLER) We assume that however it will be
16 a part of the communications test within the exercise to be
17 conducted.

18 Q Okay, I will move to questions 36 through 40.
19 This regards contentions that involve the again notification
20 of certain personnel within the Dauphin County plan, and
21 with regard to this particular contention FEMA states that
22 the county dispatcher will maintain net control on all radio
23 frequencies assigned to the Dauphin County plan.

24 I believe there was within the contention argument
25 that there are only, I believe, two frequencies being used

1 by possibly three or four support agencies, and the
2 contention was there would be so many people using the
3 frequency that transmissions would be impossible because of
4 the lines being used by numerous individuals -- the airways
5 being used -- frequencies being used by numerous individuals.

6 Now, as I understand your testimony you state that
7 the dispatcher can control communications on these radio
8 frequencies, but that does not mean that he can control the
9 number of transmissions being made by various groups, does
10 it?

11 (Panel of witnesses conferring.)

12 A (WITNESS BATH) That is what net control is. The
13 dispatcher is to have the authority to tell an operator get
14 off this frequency or restrict your communication, that this
15 frequency is now being utilized, and he provides net control.

16 Q Okay. That still leaves the chance that the
17 frequencies could be jammed because of communications being
18 made that disregard what the dispatcher is ordering; is that
19 not correct?

20 A (WITNESS BATH) Yes. If you have a situation in
21 which persons using the radio were not caring about getting
22 good communications and served to use it for its
23 unauthorized purpose, there is a possibility that a person
24 could jam up a system, but I do not think that is what we
25 are talking about. We are talking about an emergency

1 services group using a communications tool in which there is
2 a net control operator.

3 Q Well, what I am also trying to point out is isn't
4 it true that there could be so many people that need those
5 two frequencies that there might be just an overburdening of
6 the frequency itself?

7 A (WITNESS BATH) I believe the contention goes on
8 further and discusses other frequencies that are available.
9 I believe there are more frequencies -- I cannot off the top
10 of my mind talk about them, but there is more frequencies
11 available to the police so there is a means of moving some
12 police transmission onto their other available frequencies,
13 the same with the fire.

14 It appears that they have a reasonable number of
15 frequencies to shift around on.

16 Q Okay. So you are satisfied with the number of
17 frequencies mentioned within the Dauphin County plan, that
18 those are an adequate number in order to assure that all
19 emergency services can be provided for -- communications for
20 emergency services can be provided for.

21 A (WITNESS BATH) To the extent that I am not a
22 communications specialist, I will answer yes. This gives
23 the appearance that there is adequate communications
24 existing in the Dauphin County.

25 Q Okay. I will move to questions 41 and 42.

1 Unfortunately, some of these contentions in the way that
2 they are phrased are sometimes repetitive, so I am trying to
3 delete what has been gone over by Ms. Bradford earlier in
4 some of the questions that were brought up earlier.

5 This contention again refers to the 911 system and
6 rumor control, and I guess the only question left that has
7 not been asked in this particular area is that in your
8 direct testimony the Federal Emergency Management Agency
9 states that counties have been directed to set up rumor
10 control centers to relieve some of the burdens from 911
11 operators.

12 Within the York and Dauphin County plans, has FEMA
13 determined whether rumor control operators have been
14 established?

15 A (WITNESS ADLER) We would expect to see that in
16 the plans, yes.

17 Q And so therefore at this time you do not know how
18 many operators may have been assigned to rumor control; is
19 that correct?

20 (Panel of witnesses conferring.)

21 A (WITNESS ADLER) Until we see the revised county
22 plans, that is true.

23 Q Now, within your direct testimony is it not true
24 that FEMA indicates that call volume exceeding 911 operator
25 capacity will be transferred to rumor control centers or

1 appropriate resources? And my only question is what would
2 be the other resources at this point? Who besides rumor
3 control would receive those types of communications?

4 A (WITNESS BATH) I do not want to cause a
5 misunderstanding, so what specific county are we talking
6 about in respect to that capability? Some 911 systems do
7 not have the capacity to transfer over, and therefore the
8 counties have published information numbers for information
9 and they do not really feel that you can be adequately
10 addressed on a 911 system, and the counties do not publish
11 the 911 system as the means to get information during an
12 emergency at a fixed nuclear facility. It is not published
13 within the public information brochure.

14 Q Well, the contentions are directly related to the
15 Dauphin County plan, so it would be Dauphin County that I
16 would be referring to.

17 (Panel of witnesses conferring.)

18 MR. CUNNINGHAM: I think we are getting close to
19 our time. Do you want to save that question until tomorrow?

20 CHAIRMAN SMITH: All right. We will start
21 tomorrow.

22 (Board conferring.)

23 Okay. Your cross examination, this is a logical
24 place to break it off.

25 MR. CUNNINGHAM: Logical as anyplace else.

1 CHAIRMAN SMITH: We will take it up tomorrow.

2 DR. LITTLE: Are we supposed to have two versions
3 of the emergency information for Lancaster County brochures?

4 MS. STRAUBE: I do not think so.

5 DR. LITTLE: I have two copies I was looking at
6 with different phone numbers and somewhat different
7 information on them.

8 MS. STRAUBE: Could you hold them up, please?

9 CHAIRMAN SMITH: Maybe we could address that
10 tomorrow after you find out what the confusion is.

11 Now we will take just a few minutes break while
12 the Board addresses the -- until we find out what we want on
13 Basdekas, and then we will come back and announce it. We
14 will have nothing more on emergency planning, if that helps
15 you any.

16 MS. GAIL BRADFORD: I have another concern which I
17 would like to discuss, and I can discuss it when you get
18 back if that is all right.

19 CHAIRMAN SMITH: Okay. The panel can step down.

20 (The witnesses were excused.)

21 (Recess.)

22 CHAIRMAN SMITH: All right, let's address the
23 Basdekas business.

24 The Board directs the staff to provide to Mr.
25 Basdekas copies of the following transcripts and written

1 testimony, which we will list. Number 1, the NRC staff
2 testimony of Dale F. Thatcher relative to the integrated
3 control system failure mode and effects analysis following
4 transcript 7,122 -- that was on December 2, 1980 -- and
5 transcript 7,123 to 7,321, which extended over to December
6 3rd where the oral examination can be found.

7 The next item is the NRC staff testimony of James
8 H. Conran relative to the classification of systems and
9 components as important to safety, in the record following
10 transcript 8,372, December 16, 1980. The oral examination
11 of Mr. Conran was at transcript 8,372 to 8,656 on December
12 16 and 17, and transcript 8,669 to 8,710 on the 17th.

13 The next item is the NRC staff testimony of
14 Denwood F. Ross, Jr. relative to the integrated control
15 system failure modes and effects analysis, following
16 transcript 15,855 on March 19. The oral examination was the
17 same date, from 15,856 to 15,913.

18 The next item is the Licensee's testimony of T.
19 Gary Broughton, Gerald A. Sadauskas and Luther L. Joyner in
20 response to Sholly Contention 6(A) on the integrated control
21 system, which follows transcript 6,949 on December 2. The
22 oral examination by the Board and the parties was from 6,950
23 to 7,118 on December 2, 1980.

24 The Licensee particularly requests that he look at
25 Mr. Broughton describing the GPU review of the B&W ICS

1 failure modes and effects analysis and the termination of
2 that analysis and its applicability to TMI-1, and that is
3 covered at transcript 7,011 to 12, and particularly the GPU
4 study of TMI-1 ICS integrated control system non-nuclear
5 instrumentation power supplies as described at transcript
6 6,971 to 75 and 6,991 to 96.

7 Mr. Basdekas is requested to read this. It
8 consists of about at the most 650 pages, but within those
9 pages will be much material that will be of relevance to
10 him, and we understand he has already read some of this. One
11 of the witnesses indicated, Conran, I think, had indicated
12 he had already given his testimony to Mr. Basdekas.

13 There was an error. The cross examination during
14 the oral examination on James H. Conran as I indicated
15 earlier was on December 18, 1980, not December 17.

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1 (Panel of witnesses conferring.)

2 CHAIRMAN SMITH: All right. The correct dates for
3 the oral examination of Mr. Conrath is 16, 17 and 18, which
4 is exactly what I said before. Well, the transcript pages
5 take care of it.

6 All right. Mr. Basdekas is requested to read this
7 testimony and to inform the Board specifically by April 23,
8 1981, whether, and if so which, specific matters have not
9 been brought out which he believes are relevant to this
10 proceeding and which he can testify to.

11 We request the management of NRC staff to provide
12 Mr. Basdekas the opportunity to read this testimony as a
13 part of his work, and to facilitate his reporting to the
14 Board.

15 Are there any further comments on this? Oh, we
16 ask that it be delivered to the hands of appropriate staff
17 counsel, so that staff counsel can produce the response to
18 the Board on the 23rd, preferably at the beginning of
19 business on the 23rd, the beginning of the hearing on the
20 23rd.

21 All right. If there is nothing further, we will
22 adjourn until 9:00 a.m. tomorrow -- oh, I am sorry. Ms.
23 Bradford.

24 MS. GAIL BRADFORD: Sir, you wanted a response on
25 the motion Mr. Zahler made to include --

1 CHAIRMAN SMITH: Yes, official notice of the
2 Commission's actions on thyroid blocking.

3 MS. GAIL BRADFORD: I do not recall having seen
4 the other document, which is SECY-80-257/257A, apparently,
5 which the staff will provide a clear copy of tomorrow.

6 CHAIRMAN SMITH: Yes.

7 MS. GAIL BRADFORD: So I cannot comment on that
8 part of it. But we do not have any objection to the Board
9 taking official notice of the portion here that we have
10 seen.

11 CHAIRMAN SMITH: All right. The staff
12 communication to the Commission will be officially noticed
13 only as it helps to describe the action the Commission
14 took.

15 The Board might take an action based upon, or fail
16 to take an action or decide the issue based in whole or in
17 part on what the Commission has done, but not what the staff
18 did. Do you understand the difference?

19 MS. GAIL BRADFORD: Yes.

20 CHAIRMAN SMITH: All right. Any comments on that
21 ruling or that prediction of ruling?

22 (No response.)

23 CHAIRMAN SMITH: All right. If there is nothing
24 further, we will adjourn until 9:00 a.m.

25 (Whereupon, at 5:32 p.m., the hearing was

1 adjourned, to reconvene at 9:00 a.m. on Thursday, April 16,
2 1981.)

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NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the

in the matter of: METROPOLITAN EDISON COMPANY (TMI UNIT 1)

Date of Proceeding: April 15, 1981

Docket Number: 50-289 (Restart)

Place of Proceeding: Harrisburg, Pa.

were held as herein appears, and that this is the original transcript thereof for the file of the Commission.

David S. Parker

Official Reporter (Typed)



(SIGNATURE OF REPORTER)