

ORIGINAL

NUCLEAR REGULATORY COMMISSION

In the Matter of:

ORAL PRESENTATIONS ON TMI-1 RESTART

DATE: November 9, 1982

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

PUBLIC MEETING

Auditorium
William Penn Memorial
Museum
3rd and North Streets
Harrisburg, Pennsylvania

Tuesday, November 9, 1982

The Commission met, pursuant to notice, at

2:00 p.m.

BEFORE:

- NUNZIO PALLADINO, Chairman of the Commission
- JOHN AHEARNE, Commissioner
- THOMAS ROBERTS, Commissioner
- VICTOR GILINSKY, Commissioner
- JAMES ASSELSTINE, Commissioner

COMMISSION STAFF PRESENT:

- Mr. Beckwit
- Mr. Chilk

1 ALSO PRESENT:

2 For Licensee:

3 George F. Trowbridge

4 William G. Kuhns

5 Herman Dieckamp

6 Robert C. Arnold

7 Henry D. Hukill

8 Philip R. Clark

9 Ernest L. Blake

10 Thomas A. Baxter

11 Robert E. Zahler

12 Michael Ross

13 For USC:

14 Ellyn R. Weiss

15 Robert Pollard

16 For TMI Alert:

17 Louise Bradford

18 Joanne Doroshow

19 For Aamodts:

20 Norman O. Aamodt

21 Marjorie Aamodt

22 For Lewis:

23 Marvin I. Lewis

24 For Newberry Township:

25 Patricia Smith

1 ALSO PRESENT:

2 For Commonwealth of Pennsylvania:

3 Michele Straub

4 Adolph Belser

5 For NRC Staff:

6 Jack R. Goldberg

7 Joseph R. Gray

8 James M. Cutchin IV

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AFTERNOON SESSION

CHAIRMAN PALLADINO: Good afternoon, ladies and gentlemen.

The purpose of today's meeting is to hear all argument by the parties to the TMI restart proceeding, on whether to adopt the licensing board's second and third partial initial decisions which authorize the restart of Unit 1.

The board issued three decisions: in August, 1981, on management competence; in December, 1981, on hardware issues, separation of Units 1 and 2, and emergency planning; and in July, 1982, on the reopened cheating issues. We heard oral argument in September, 1981, on the issue of management competence.

This afternoon's presentations are to address, as I said before, the board's second and third decisions. Our order of October 27th, 1982, addressed three questions to the parties who are here today, and these questions are as follows.

One, whether the Commission should adopt the findings of the licensing board or the special master regarding the cheating incidents? Two, what light does the cheating shed on the management competence added to an integrity of GPU Nuclear? And three, what is the status of emergency planning efforts, particularly

1 public information efforts, emergency planning for
2 farmers, and staffing of the emergency operations
3 facility?

4 As our orders have announced, the Commission
5 intends to make its decision on lifting the suspension
6 for TMI 1 by December 10th, 1982. Those orders also
7 make clear that other matters, such as steam generator
8 tube repairs, remain to be solved before actual restart
9 of Unit 1.

10 The first presentation today will be made by
11 GPU Nuclear. It will be followed then by the Union of
12 Concerned Scientists, Three Mile Island Alert, the
13 Aamodts, the Commonwealth of Pennsylvania, and Marvin
14 Lewis. The staff, the NRC staff will then make a final
15 presentation.

16 With that, I will ask if any of the
17 Commissioners have opening remarks.

18 COMMISSIONER GILINSKY: I would like to add a
19 few words to what the Chairman has said. A little over
20 a year ago, the Commission heard oral arguments on GPU's
21 competence to manage and operate TMI Unit 1. The need
22 to resolve doubts about GPU's management was one of the
23 chief reasons that TMI 1 was treated differently than
24 other Babcock and Wilcox reactors after the TMI 2
25 accident.

1 Last year's hearing dealt in large measure
2 with the integrity of GPU's management, in particular
3 the issue of whether the company had withheld
4 information from the Commonwealth of Pennsylvania and
5 the NRC on the first day of the accident.

6 Today's hearing, insofar as it deals with
7 cheating on operator examinations, is also essentially
8 about the integrity of the company. In this connection,
9 two areas stand out in my mind, and I hope that GPU will
10 address them in its initial presentations, and these
11 are, first, the false certification to the NRC in 1979
12 that the superintendent of operations was qualified to
13 have his license renewed, and the second is GPU's own
14 investigation of operator cheating.

15 CHAIRMAN PALLADINO: Thank you.

16 Any other opening comments? Commissioner
17 Ahearne?

18 COMMISSIONER AHEARNE: The Chairman has
19 mentioned the three questions we asked in putting out
20 the order, and Commissioner Gilinsky has just covered
21 two additional points. This afternoon's session is
22 obviously a short period of time in a lengthy process in
23 which the board and the Commission and others will have
24 been considering the Three Mile Island Unit 1 plan.

25 So, I recognize that, and this afternoon we

7
1 are not going to cover every issue in great detail, much
2 less even covering some of the issues in great detail,
3 but I would like to ask any of the people who are coming
4 up in front of us to address what they believe are the
5 most critical points.

6 In other words, given that some on the
7 Commission have indicated there are some questions they
8 would particularly like focused on, I would also like to
9 hear from the participants on any issue they feel is
10 most critical, if there turns out to be one other than
11 the ones we have already asked about.

12 CHAIRMAN PALLADINO: Well, then, I suggest we
13 turn the meeting over to the licensees, and ask them to
14 make their presentation.

15 STATEMENT OF ERNEST L. BLAKE

16 MR. BLAKE: Good afternoon, Mr. Chairman and
17 Commissioners.

18 My name is Ernest Blake. I am an attorney
19 with the Washington, D.C., law firm of Shaw, Pittman,
20 Potts, and Trowbridge. We have represented GPU Nuclear
21 Corporation throughout the restart proceeding.

22 Up here with me this afternoon and available
23 to respond to questions are Mr. Herman Dieckamp,
24 president and chief operating officer of General Public
25 Utilities, and chairman of the board of GPU Nuclear

1 Corporation; Mr. Robert Arnold, president of GPU
2 Nuclear; Mr. Philip Clark, executive vice president of
3 GPU Nuclear; Mr. Henry Hukill, vice president, TMI 1;
4 Mr. Michael Ross, manager of plant operations, TMI 1;
5 and Mr. Thomas Baxter and Robert Zahler, my colleagues
6 who have represented GPU Nuclear on various aspects of
7 this lengthy proceeding.

8 Also present today and available as well to
9 respond to questions from the Commissioners are Mr.
10 William Kuhns, chairman of the board of General Public
11 Utilities; Dr. Robert Long, vice president, nuclear
12 insurance; Mr. Richard Wilson, vice president, technical
13 functions; Mr. Robert Keaton, director of systems
14 engineering; and Mr. Robert Rogan, manager, emergency
15 preparedness.

16 I would like to address the first two issues
17 identified by the Commission in its October 27th, 1982
18 order. Those issues are whether the Commission should
19 adopt the findings of the licensing board or the special
20 master regarding the cheating incidents, and what light
21 does the cheating shed on management competence,
22 attitude, and integrity of GPU Nuclear.

23 The third issue identified by the Commission
24 in its October 27th order concerning the status of
25 emergency planning efforts at TMI 1 will be addressed by

1 Mr. Arnold who, along with Mr. Hukill and Mr. Ross, will
2 be making short presentations now.

3 Licensee requests in addition that we be
4 granted a brief opportunity to respond to the
5 presentation of other parties who follow us here today.

6 With respect to the first issue identified by
7 the Commission, the Commission's regulations
8 unequivocally establish that the report of a special
9 master is advisory only. In the reopened TMI 1
10 proceeding, the board alone was authorized by statute,
11 by regulation, and in this case specifically by the
12 conditions on notice of hearing to render the initial
13 decision.

14 The board recognized its non-delegable
15 responsibility to assess and resolve the facts as the
16 initial decision-maker. The Commission should be
17 particularly confident in the findings of the licensing
18 board because of the availability to the board of not
19 only the extensive record developed in the reopened
20 proceeding, but in addition the detailed comments on the
21 report of the special master filed by the hearing
22 participants.

23 Furthermore, the licensing board already had
24 had the benefit of approximately eight solid months and
25 23,000 transcript pages of hearings, during which it had

1 the opportunity to scrutinize firsthand the
2 capabilities, attitudes, and integrity of senior and
3 junior members of licensee's attitude.

4 There is no substitute for the board's
5 extraordinary familiarity with the people who work for
6 GPU Nuclear.

7 Finally, licensee believes that the Commission
8 ought not to take independent account of the special
9 master's report because in important respects the
10 special master's conclusions are based on his
11 misunderstandings of the evidence. Probably the most
12 salient example of this fact is Judge Milholland's
13 evaluation of the conduct of Michael Ross, the TMI 1
14 manager, plant operations. Based largely on an
15 interpretation of questions and answers on the NRC
16 exams, the special master found Mr. Ross guilty of
17 serious misconduct, conduct of which Mr. Ross was wholly
18 exonerated, and properly so, by the licensing board
19 after its detailed analysis of the evidence in
20 question.

21 In summary, the long -- mandates the
22 Commission's licensing decision, not of the special
23 master. Therefore, the Commission has every reason to
24 have confidence in the findings made and the consequent
25 conclusions reached by the licensing board which

1 carefully and competently took into account the advice
2 of the special master.

3 With respect to Issue 2, the conduct of
4 licensee's management relative to the cheating incidents
5 was examined in great detail during the reopened
6 hearing, including whether management was involved in or
7 responsible for the cheating, whether management
8 adequately investigated and responded to the cheating,
9 and whether management fully cooperated with the NRC
10 staff's investigations.

11 The licensing board found "no evidence that
12 licensee's management encouraged or condoned cheating of
13 relevant or NRC managed investigations." Although the
14 board criticized some aspects of licensee's
15 investigations, it found that licensee sincerely tried
16 to uncover and report every instance of cheating.

17 In addition, it was the board's view that
18 licensee cooperated fully in the reopened proceeding,
19 including the related NRC investigations. This is not
20 to say that licensee is blameless for the cheating which
21 occurred. As the licensing board stated, licensee made
22 an unusually open and candid acknowledgement of its
23 responsibilities. Management simply did not think to
24 institute explicit procedures and other administrative
25 safeguards for guarding against cheating on exams.

1 After the TMI 2 accident, licensee's focus
2 instead was on revamping the substantive training
3 curriculum and the training organization at TMI, an
4 effort which has been successfully accomplished.
5 Clearly, management's oversight was naive. Licensee
6 also failed to instill in its operating staff the
7 requisite sense of respect for its training and testing
8 program.

9 However, these errors must be tempered by the
10 fact that management simply expected that its operators
11 understood the need for total honesty, trustworthiness,
12 and integrity on the job. In this regard, since the
13 discovery of cheating, management has made every effort
14 to ensure that licensed operators particularly but also
15 all of licensee's employees understand the licensee's
16 policies on this subject.

17 In addition, of course, licensee has
18 instituted explicit administrative procedures to
19 safeguard exams at TMI 1.

20 I would now like to introduce Mr. Robert
21 Arnold, the president of GPU Nuclear Corporation.

22 STATEMENT OF ROBERT C. ARNOLD

23 MR. ARNOLD: Thank you, Ernie.

24 Mr. Chairman, Commissioners, I would like to
25 spend just a couple of minutes making some comments

1 relative to the third question or some elements, at
2 least, of the third question in your October 27th
3 order.

4 We have in place now as a result of the
5 tremendous efforts on the part of state and local
6 officials in the company plans for the response to
7 emergency that fully comply with the NRC's requirements
8 and with the FEMA requirements. Those plans have been
9 to a great extent assisted in coming into place by
10 resources that the company has made available to the
11 emergency planning agencies from the state down through
12 the local levels.

13 We have over the past two years provided
14 expert consulting services and are continuing to do
15 that. These plans come into final detailed form at all
16 levels. This is going to be an ongoing effort as we
17 learn more from the drills and experience we gain from
18 that, but it is representative of the commitment we have
19 made to do our part to ensure the emergency readiness in
20 the vicinity of Three Mile Island.

21 Within the company and at the company level,
22 we have conducted two major drills observed and
23 evaluated by the Nuclear Regulatory Commission.
24 Performance on those drills was satisfactory. We have
25 in place the siren system -- it is operational -- that

1 provides the confidence of people around Three Mile
2 Island within a ten-mile radius can be notified timely
3 in the event of an emergency at Three Mile.

4 We have supported the state and local
5 governments in the public's information programs by
6 mailing to the households and businesses within the
7 ten-mile radius two brochures, one of which contains
8 general information that they need to know in the event
9 of the incident at a nuclear station. The other
10 contains specific emergency response procedures,
11 detailed for the particular county where the person
12 lives.

13 There has been a great deal of review and
14 discussion with regard to manning the company's
15 emergency facilities and particularly the senior
16 management representation at the off-site emergency
17 operating facility. As we approach emergency management
18 at GPU, we have attempted to provide an appropriate
19 allocation and some flexibility of the allocation of the
20 very strong resources available here at the site to
21 respond to an emergency.

22 We have defined in our procedures ways for
23 doing that that we think fit our particular situation,
24 and while that matter is still under review, we will
25 continue to comply with the commitment that we have made

1 to the licensing board to have the staffing at the near
2 site operating facility staffed within one hour.

3 I would like to move on to the second sheet of
4 the handout that I have provided. This is a description
5 of the GPU Nuclear organization provided at the oral
6 argument in September of 1981 that Commissioner Gilinsky
7 discussed, and I would just like to identify that this
8 organization is now fully operating officially, and I
9 would like to give you a couple of statistics relative
10 to it.

11 GPU Nuclear has approximately 2,600 employees.
12 If we exclude those that are in administrative and
13 communications areas, as shown on the chart here, there
14 are about 2,000. Approximately 700 of those employees
15 are typically applied to TMI operational activities, and
16 Mr. Hukill will describe that in more detail. As you
17 can see from the organization chart, Mr. Hukill has
18 available to him to support and supervise certain
19 activities that do not need to come under his direct day
20 to day management, although they come under his control
21 for assignment of priorities, things like engineering
22 quality assurance, the radiological environmental
23 programs, et cetera.

24 So that we have provided experienced technical
25 managers in those areas to provide the support to Mr.

1 Hukill that he will be describing.

2 A little more detail is given on the third
3 sheet of the handout material, and we would be prepared
4 to answer questions on it. It is just provided
5 primarily for background.

6 With that, let me ask Mr. Hukill, who heads up
7 our TMI 1 activities, to continue our presentation.

8 STATEMENT OF HENRY D. HUKILL

9 MR. HUKILL: Good afternoon, Mr. Chairman,
10 Commissioners.

11 I will be presenting information that is on
12 Pages 4 and 5 of your handout.

13 In the next few minutes, I will explain to you
14 and describe to you the resources that are available to
15 me as the vice president of Unit 1 to fulfill my prime
16 responsibility for the safe operation and maintenance of
17 the plant. If you look at Page 4, this is a pictorial
18 presentation of the organizational management that has
19 been established by GPU Nuclear to provide these assets
20 and resources to me to safely operate the plant.

21 If you look at the righthand side of Page 4,
22 you will see reporting and a solid line to me. My own
23 staff or the plant staff, the individuals that fulfill
24 these key positions, represent years of experience in
25 the operation and maintenance of the plant. They are

1 totally dedicated to the daily operation and safe
2 operation and maintenance of the plant.

3 Of interest also, these people have not
4 changed at all in the two years that I have been there.
5 From two levels down from me, we have stability in the
6 organization, with the same people who were there when I
7 came, still there, and still reporting to me. These
8 people have assisted me in implementing my philosophy in
9 regards to integrity, competence, safe operation of the
10 plant, and procedural compliance.

11 Also during this period we together have
12 developed a sense of teamwork and cohesiveness in
13 carrying out our daily jobs for the safe operation of
14 the plant.

15 To the left of the chart you will see the
16 support organizations. As can be seen with the support
17 organizations, they perform a vital and essential
18 function in maintaining the safe operation and
19 maintenance of TMI Unit 1. You can see from the arrows
20 that the corresponding levels in the support
21 organization coordinate and interact with the various
22 levels within the plant staff.

23 In addition, the support managers on site
24 report and respond to me, to my requests and to the
25 requests of my plant staff. Additionally, the on-site

1 support members are an active participant and member of
2 the on-site team. They participate in my managers'
3 meetings. They participate in other prime meetings and
4 prime decisions.

5 I will now go on to Page 5. Page 5
6 demonstrates the considerable resources both in number,
7 quality, education, that are applied to the support and
8 the safe operation of TMI Unit 1. I think a special
9 note is that there are almost 260 graduate engineers
10 assigned on a daily basis to supporting Unit 1.

11 Although I am not able on an exact basis to
12 compare the Navy, because of its different structure,
13 and because of its different size, and because of the
14 different number of plants that the Navy has, I do
15 consider that the support that I receive as the director
16 of TMI 1 is certainly comparable to that I received in
17 the Navy, and in most cases exceeds that that I received
18 during my five years in command of a Navy ship.

19 I would now like to introduce Mike Ross,
20 manager of operations, who will speak specifically to
21 the qualification of our operating personnel.

22 STATEMENT OF MICHAEL ROSS

23 MR. ROSS: Mr. Chairman and Commissioners, my
24 presentation will address the TMI Unit 1 staff's
25 readiness to operate our units safely.

1 GPU management has reassessed its commitments
2 in the area of operator qualification and staffing.
3 Significant improvements in these areas have been
4 instituted. Increased staffing complements have enabled
5 us to maintain a shift rotation that allows the
6 assignment of all operations personnel to training on a
7 routine basis.

8 Typically, the operations group will maintain
9 a six-shift rotation. This rotation not only promotes
10 good morale and gives operators a break from in-plant
11 duty, but it also allows one week out of every six to be
12 set aside exclusively for training purposes. During a
13 plant startup phase, this rotation may be reduced to a
14 five-shift rotation. This is being done in order to
15 apply additional manpower and experience to plant
16 startup. These additional resources will assist in a
17 very controlled startup and training sequence.

18 NUREG-737 institutes new requirements for
19 shift manning. Our management firmly endorses these
20 requirements, and is committed to complying with these
21 manning levels. Our licensed operator staffing level is
22 shown on Sheet 6 of your handout. We presently meet the
23 NUREG manning requirements even using a six-shift
24 rotation.

25 In addition to meeting the NUREG requirements,

1 our staffing level has assured a pipeline of replacement
2 operators that will maintain our ability to meet these
3 requirements in the future. All of our operators at TMI
4 have been examined by the NRC using revised procedures,
5 or they will be examined by the NRC.

6 In addition, all operators have been trained
7 in the new change mods that are being installed at the
8 plant. One of our most important considerations is
9 maintaining a competent operating staff. We have in
10 place the necessary programs that provide competent
11 operators. These programs also allow us to monitor and
12 follow their level of competence to ensure that it is
13 maintained.

14 Some of the programs we have in place are
15 shown on your Sheet Number 7. In the area of training,
16 the addition of a well-organized professional training
17 staff has taken the details and burden of operator
18 training away from the operations staff, yet responds to
19 requirements deemed necessary by our staff. New
20 procedures, such as standardized training, incorporate
21 meaningful testing of our operators' knowledge level.
22 Testing will be used as a tool to measure and monitor
23 our operators' qualification level. Exams are now given
24 at the end of each training week, and results are
25 evaluated by management.

1 Senior management attend training on a
2 periodic basis. I myself attended, and I also take the
3 exams periodically.

4 In the area of operator certification,
5 procedures for initial licensing and requalification
6 certification of operators have now been instituted.
7 These procedures not only ensure academic performance
8 criteria is met, but also ensure a proper attitude is
9 maintained by licensed personnel.

10 In the area of simulator use, we are
11 increasingly requiring operator simulator time. Each
12 operator crew spends at least one week out of each year
13 at the simulator, and each licensee candidate spends at
14 least three weeks at the simulator prior to his
15 licensing examination.

16 Senior management personnel monitor and
17 administer exams to the operating crew for the licensing
18 candidate while they are at the simulator. The
19 examination tests the ability of the crew or the
20 individual to perform under emergency conditions. To
21 progress and obtain certification, the crew or
22 individual must pass these examinations. Various levels
23 of management participate in this program. I myself am
24 basically the chief examiner for these people at the
25 simulator.

1 In addition to the areas I have already
2 mentioned, probably the most important area is operator
3 attitude. Our management is aware and monitors operator
4 attitude. Attitude is an important operator performance
5 factor that affects to some extent how all of us do our
6 jobs, and that is especially true of operators.

7 At this time, our operator staff has a good
8 attitude and a surprisingly high morale level,
9 especially considering events that have taken place at
10 TMI Unit 1. I feel that high morale and good attitude
11 is brought about by the operators' feeling that they
12 have improved their knowledge level, that they have been
13 tested rigorously by both our staff and the NRC staff,
14 and their goal is now in sight. There is a higher level
15 of professionalism and some pride, in spite of what has
16 been a very difficult time for these people. Programs
17 are now in place for our licensing staff level to ensure
18 readiness to operate TMI 1 safely.

19 Thank you.

20 CHAIRMAN PALLADINO: Does that conclude your
21 opening remarks?

22 MR. ARNOLD: Mr. Chairman, that concludes our
23 prepared remarks. Because of the need to stay very
24 closely to our assigned time, we did stay tightly with
25 our initial preparation. I think that we attempted to

1 address Commissioner Gilinsky's second point that he had
2 hoped we would address with Mr. Blake's discussion.

3 With regard to the first one, given the
4 direction that the Commission gave to the appeals board
5 on the matter of the potential material false statement,
6 we did not attempt to address that in our prepared
7 remarks, but would be willing to respond to questions as
8 appropriate.

9 CHAIRMAN PALLADINO: All right. Thank you. I
10 know the Commissioners have a number of questions. I
11 will take the privilege of the chair to ask the first
12 one, and then I will turn it over to others.

13 I have some that relate to the three questions
14 we raised, and then I have a couple of technical points
15 that I will return to after we have given other
16 Commissioners a chance to address their primary
17 questions.

18 The first question I have, in your
19 presentation you indicated that you had made a number of
20 administrative changes to assure that cheating would not
21 take place on future examinations, and I was interested
22 in a few more of the details on that program, and
23 specifically what problem you thought your changes, what
24 problems you thought your changes were addressing.

25 MR. ARNOLD: Mr. Chairman, I will make the

1 initial response to that, at least, since I have been
2 heavily involved in the controls and the design of those
3 controls that we had put in place for the purpose of
4 protecting the integrity of the examinations.

5 We attempted to address with those controls
6 all the potential ways in which we saw that examinations
7 were susceptible to cheating. For example, we first of
8 all have made clear in the instructions generally to our
9 staff of the requirement that examinations be taken with
10 integrity and what that means.

11 Each individual examination contains on its
12 cover sheet specific rules for taking those
13 examinations, and the individual must sign at the
14 completion of the exam that he has complied with those
15 rules. The instructor is required to cover those rules
16 prior to the exam.

17 The rules include the procedures for the
18 individual taking the exam. In addition, the
19 instructors have new formal procedures that they must
20 follow in administering examinations that cover seating
21 arrangements, materials in the classroom, materials
22 available to the individual. In other words, controls
23 that prevent those things. And it spells out clearly
24 his responsibility for proctoring and reporting to
25 supervision and management any instances where there is

1 cheating suspected.

2 We are also instituting as a follow-up to the
3 ASLB's recommendations in their most recent decision
4 procedures for sampling the examination answers to look
5 for potential evidence of collusion.

6 CHAIRMAN PALLADINO: Well, looking at the
7 record, one of the impressions one gets is that perhaps
8 cheating in the examinations was in part due to the fact
9 that during the training, quizzes were given for which
10 the collusion appeared to be condoned, or it was not
11 clear to the participants whether or not they were
12 allowed to collude. It seemed to indicate an attitude
13 that may have carried over from the training into the
14 final exams. Do you feel that the steps that you have
15 taken -- or what steps have you taken that would cope
16 with that particular issue?

17 MR. ARNOLD: Well, in addition to the
18 administrative procedures that I have described, which I
19 might clarify are procedures that are applied to all
20 quizzes, examinations. They are not just like for the
21 annual requalification exam. Our weekly quizzes, which
22 is where the administration was inadequate in the past,
23 and where it was not clear from the way it was
24 administered that cooperation or cheating was forbidden,
25 all come under the procedures which I described.

1 But going beyond that, because I think your
2 question clearly does, we have had our senior management
3 people meet with the operators. Mr. Hukill, for
4 example, has under way a program which he has been
5 through one cycle already, where he meets with every
6 single licensed operator on his staff, and part of what
7 he covers in the course of the meetings with them is the
8 need for them to have the proper attitude toward ours
9 and the NRC's requirements to be supportive of the
10 training program and to ensure that their conduct
11 demonstrates their respect and support for the training
12 program.

13 We have under way a number of other efforts to
14 be sure -- we are using outside professionals -- to be
15 sure that we've got a good calibration, and what is the
16 attitude of our people toward their requirements. We
17 are ensuring that by these processes, that we are able
18 to not only keep in front of the people visibility as to
19 what the requirements are, but also an awareness on our
20 part of the degree of acceptance of those requirements.

21 CHAIRMAN PALLADINO: Shall we go on to
22 questions? Do you want to take the next question?

23 COMMISSIONER GILINSKY: Sure. Mr. Arnold,
24 could you tell us -- I would like to clear up some
25 points that don't seem to emerge clearly from the

1 record, at least as I read it. How did the 1979
2 incident involving persons code-named VV and O, how was
3 that brought to the attention of the NRC?

4 I gather from what the board said that was
5 through you.

6 MR. ARNOLD: Yes, sir. The first awareness
7 that I had that there was concern as to whether some of
8 our operators had cheated on NRC exams was late in the
9 afternoon of July 27, 1981. I met with NRC people at
10 the site for a description of what their investigation
11 was going to entail, what they were seeking to
12 investigate in the late afternoon, early evening.

13 Some time between then and when I came in the
14 following morning I recalled the incident of July, 1979,
15 involving Mr. VV and Mr. O, recognizing that it was
16 clearly a matter that the investigators should be aware
17 of in their current investigation, and ensured the
18 following morning that the investigators were told about
19 it, and that all our records concerning it were made
20 available to them.

21 COMMISSIONER GILINSKY: I wonder if I could
22 take you back two years to the time when you first
23 learned about it, and the thing I would like to
24 understand is what you knew of that incident at the
25 time. In other words, you certainly must have known

1 that the man sent in a take-home examination in someone
2 else's handwriting. Did you know that this had to do
3 with an NRC requalification?

4 MR. ARNOLD: Let me pick up on that latter
5 background point first, if I may. Let me say first of
6 all I have been involved with the design of our
7 requalification training program in 1973 and '74, when
8 we were initially setting it up, the retraining program
9 that would fulfill the recently issued NRC regulations
10 on ongoing maintenance training of licensed operators,
11 so I had awareness in that time frame and subsequently
12 to the details of how we fulfill that.

13 That program included the provisions for
14 classroom attendance of people, and if they didn't
15 attend classes on particular subjects that they would be
16 able to make those subjects up with packages that were
17 sent to them, which would include examinations or
18 homework assignments. The terminology could vary. But
19 where they would do work that would show that they had
20 matching material and would turn in to the training
21 department the evidence of that.

22 In July of 1979, I was aware that Mr. VV had
23 turned in, and I don't recall now whether I knew of two
24 or three of those types of assignments which, some of
25 the material that he turned in was in someone else's

1 handwriting, and I can either stop there, inasmuch as I
2 have answered your question, or I can give you
3 additional information that I presume is relevant that
4 you are interested in.

5 COMMISSIONER GILINSKY: Well, what I would
6 really like to know is whether you are aware that that
7 was part of a requalification for the man's license, the
8 renewal of the man's license, and furthermore, whether
9 you were aware that GPU had certified falsely that the
10 man had completed his requirements.

11 MR. ARNOLD: I was not aware that there was
12 any nexus between that particular completion of those
13 work assignments, those examinations and renewal,
14 certification for renewal of Mr. VV's license. In fact,
15 at this time I am not sure that was actually the case.
16 And I will explain that in a minute, but I was not aware
17 that there was any nexus between that and
18 recertification for any purpose, and I was not aware at
19 that time or subsequently until in the last few months
20 that a letter had gone in to the NRC which utilized
21 information that came out of that incident.

22 Now, going back to the other point I touched
23 on as far as what was the letter for, this is, of
24 course, part of an ongoing investigation, and I'm not
25 sure if there's any limit to what we can discuss here,

1 and hopefully my attorney will cut me off if we are
2 going too far, but my understanding at this point is
3 that the letter that was provided the NRC was provided
4 to document to the NRC in accordance with our
5 administrative procedures for our retraining program
6 that this individual had -- Mr. VV had been required to
7 go into an accelerated training program because he had
8 become deficient in maintaining his status in the
9 requalification program, that he had gone into that
10 accelerated training program, he had subsequently
11 demonstrated that he was no longer deficient in his
12 knowledge level in those areas through examination, and
13 that we were returning him to license assignments, the
14 person having been removed from license assignments
15 while he was in the accelerated training program.

16 And our procedures require us to tell the NRC
17 if an individual gets into that level of non-currentness
18 in demonstrating his qualification of retraining.

19 COMMISSIONER GILINSKY: And this information
20 was not known by anyone other than the person who signed
21 the letter? I suppose Mr. Herbine had either seen it or
22 approved it. Did anyone else on corporate staff know
23 about the letter?

24 MR. ARNOLD: I have taken care to permit the
25 independent investigator that the company has hired from

1 outside the company to investigate this incident not be
2 interfered with in any way with inquiries that I would
3 make in the interim, so I don't have any firsthand
4 knowledge as to what Mr. Herbine knew at the time or
5 have any knowledge from having discussed it with him.

6 My understanding is that Mr. Herbine knew the
7 letter had to be supplied to the NRC. I don't know what
8 purpose he understood it would be needed for. Certainly
9 the training department understood that a letter needed
10 to be provided to the NRC, as they were the ones, as I
11 understand it, that prepared the letter for Mr. Miller's
12 signature.

13 COMMISSIONER GILINSKY: I gather that the head
14 of that department is Mr. Zeckman?

15 MR. ARNOLD: Was at that time, sir.

16 COMMISSIONER GILINSKY: He is no longer head
17 of the department?

18 MR. ARNOLD: No, sir. He is still a member of
19 the training staff, but he was not a part of that.

20 I might add, just to try to make the story
21 complete, to my understanding at this point, Mr. VV's
22 accelerated training program and the examination he took
23 fully covered all of the areas in which he had been
24 deficient in his requalification status, and so that the
25 letter was incorrectly worded in the sense that it

1 implied that a portion of his training requirements were
2 fulfilled by material in which he had help, and that was
3 in fact not the case. He had done everything for all
4 areas that he needed to have been properly certified.

5 COMMISSIONER GILINSKY: You are cited as
6 saying, as describing the sense that it was not one that
7 involved cheating. Is that still your view?

8 MR. ARNOLD: I personally was one who
9 testified as to not believing it involved cheating,
10 based upon the description by Mr. VV as to why he did it
11 and what he understood the training department
12 requirements to be for completing those assignments, as
13 far as whether it was just material that he had to know
14 and it was necessary for him to identify that he knew
15 that, as opposed to whether he was required to in fact
16 answer all the questions personally.

17 And I disagreed with any basis for him having
18 made the judgment that he said he made as far as what
19 constituted acceptable fulfillment of the training
20 program, but under the circumstances I accepted that,
21 and I accepted that as he carried out the assignment, it
22 wouldn't fall within my definition of cheating.

23 Since then, I think, in testimony Mr. VV has
24 provided other information as far as what he understood
25 to be the requirements which would indicate that his

1 initial explanation to us perhaps was either
2 misunderstood or he was not as frank then, and I think
3 we are now to an extremely fine line as to whether one
4 would argue it was not cheating, given that he
5 understood that it was not an acceptable way to turn in
6 the assignment.

7 COMMISSIONER GILINSKY: Let me ask you about
8 your own investigation, GPU's investigation of the
9 cheating. Who selected Mr. Wilson to do the
10 investigation?

11 MR. ARNOLD: I did, sir.

12 COMMISSIONER GILINSKY: And on what basis did
13 you choose him?

14 MR. ARNOLD: The investigations carried out by
15 the company, and we do many inquiries into problem
16 areas, some of which involve misconduct, some of which
17 just involve problems with behavior of equipment as well
18 as people, and we typically get assistance from outside
19 when it appears that that is necessary either in terms
20 of getting sufficient expertise brought to bear or
21 sufficient objectivity.

22 As I looked at the background that Mr. Wilson
23 had as an attorney with many years' experience, his
24 knowledge of our organization, his familiarity with our
25 records, and what I thought was both the professional

1 competence he brought to it, the integrity he personally
2 brought to it, and the insight he had into our
3 organization and the way it worked, it was my judgment
4 that he could very effectively and very efficiently
5 carry out the investigation.

6 COMMISSIONER GILINSKY: Did he have any
7 background in related matters or investigations?

8 MR. ARNOLD: He did not have experience in
9 criminal investigation, and for the purpose of doing
10 evaluations of the examinations as the examinations
11 indicated there was cheating, we relied upon an outside
12 person who was a professional educator and had
13 experience in evaluating examinations.

14 COMMISSIONER GILINSKY: Could you characterize
15 the sort of work he had done for the company up to that
16 point?

17 MR. ARNOLD: He had been employed by the
18 company in a variety of capacities.

19 COMMISSIONER GILINSKY: He was one of your
20 lawyers?

21 MR. ARNOLD: He was until about 1980, when he
22 transferred to a firm that we use for legal services,
23 but he has remained since then dedicated to GPU
24 activities.

25 COMMISSIONER GILINSKY: Could you tell us what

1 instructions you gave him and in what form they were
2 given concerning the scope of the investigation and the
3 objectives of the investigation?

4 MR. ARNOLD: I don't recall that I gave him
5 any instructions in writing, although my sense is I did,
6 but I guess my record will have to stand on what is
7 available. However, I did talk with him extensively
8 orally as to what the objective of the investigation
9 was, and made it clear to him that we wanted to
10 understand whether there had been any cheating on other
11 NRC examinations, on examinations administered by the
12 company for the purpose of showing the qualification of
13 our operators to hold a license, and that involved a
14 substantial portion of all of the training and
15 examinations that we had given since the accident.

16 COMMISSIONER GILINSKY: And can you tell us
17 what was done with his report when it was completed?

18 MR. ARNOLD: All of the information that he
19 gave me in the way of reports or the documents that he
20 generated in the course of that were made available to
21 the NRC investigation to the best of my knowledge.

22 COMMISSIONER GILINSKY: I mean in terms of the
23 company's own evaluation.

24 MR. ARNOLD: In terms of the company's own
25 evaluation, we sent down, we being the point in time at

1 which decisions had to be made between Mr. Wilson and
2 myself and Mr. Lloyd, who assisted Mr. Wilson in his
3 investigation, reviewed those instances of examination
4 papers where there was concern about whether there had
5 been cheating. We reviewed the results of interviews
6 that Mr. Wilson had had with individuals who were
7 suspected of cheating, and reached a judgment as to
8 whether we felt the evidence supported the conclusion
9 that they had cheated on examinations, so I was
10 personally involved in those judgments.

11 COMMISSIONER GILINSKY: We being?

12 MR. ARNOLD: Mr. Wilson.

13 COMMISSIONER GILINSKY: No, when you said we,
14 do you mean you and Mr. Wilson?

15 MR. ARNOLD: Mr. Wilson, Mr. Lloyd, and
16 myself.

17 CHAIRMAN PALLADINO: Let me see if other
18 Commissioners have questions on cheating or management
19 competence. Commissioner Ahearne?

20 COMMISSIONER AHEARNE: I only have a couple of
21 questions. The first really is more a clarification to
22 Mr. Blake. Did I understand the gist of your initial
23 comments to be that your principal answer to our first
24 question was that the Commission's regulations make it
25 clear that the special master's report is advisory?

1 That seemed to be the gist of your argument.

2 MR. BLAKE: Commissioner, I actually had three
3 points that I intended to make, one of which was that
4 legal in nature.

5 COMMISSIONER AHEARNE: I am sure you would
6 recognize that the issue in front of us is not whether
7 it is advisory or not, because by the time it reaches us
8 the question is, which is correct. That is really what
9 we have to focus on.

10 MR. BLAKE: Correct, and that is the reason I
11 went on to the other two, to try to express the degree
12 of confidence that I feel you should have in this
13 licensing board, with its extraordinary background in
14 this proceeding, and second, the lack of confidence
15 which I believe you should have in the special master's
16 own work.

17 COMMISSIONER AHEARNE: But our judgment has to
18 turn on, with respect to that specific question on the
19 special master versus the licensing board, where we
20 conclude the correct decision lies, not whether the
21 special master is or is not advisory. That is almost
22 irrelevant.

23 A question of Mr. Arnold. You made mention at
24 the end of your formal presentation, you made a comment
25 about how you were not responding specifically to one of

1 the questions Commissioner Gilinski raised because you,
2 and then you referred to our directive that the
3 Commission gave to the appeal board. Could you say why
4 that prevented you from answering the question?

5 MR. ARNOLD: A judgment on my part that with
6 the NRC investigation which had been directed to be
7 undertaken in taking that out of the appeal board's
8 domain, that this wasn't the right forum for addressing
9 it, not that we weren't unwilling to.

10 COMMISSIONER AHEARNE: But you don't have any
11 reluctance on coming down on one side or the other of
12 the issue?

13 MR. ARNOLD: No, sir, I don't have a
14 reluctance to come down on one side or the other.

15 COMMISSIONER AHEARNE: I realize you gave a
16 lot of chronology. Where do you come down on the end of
17 that issue?

18 MR. ARNOLD: I have had the report of our
19 internal investigation from our outside person available
20 about a week. I have only had time to read the basic
21 report once, because of conflicts for time with other
22 events. So we are still, and I personally am still
23 reviewing it. The conclusion of our investigation
24 frankly was that there was false information in the
25 letter, but that it was not material to the action that

1 the NRC needed to take to which the letter was
2 addressing itself, and you know, whether I agree with
3 that or not at this point, I frankly have not decided.
4 I do think we need some more time, and I had a couple of
5 questions. I asked people to go back and do some more
6 work on it.

7 I would also like to, if I could, ensure that
8 I haven't too narrowly interpreted the questions
9 Commissioner Gilinsky was asking as far as response to
10 the company's investigations. I was addressing what we
11 did as a result of Mr. Wilson's efforts, not, for
12 example, what we did with the NRC's investigations,
13 which of course involved O and W working on the ASLB
14 proceedings subsequently, those items.

15 COMMISSIONER GILINSKY: I was asking because I
16 read at least an implied criticism in one of the things
17 the board said suggesting that had GPU looked harder at
18 the results or had they taken it more seriously, things
19 would have been better.

20 MR. ARNOLD: I understood your questions in
21 the vein of that aspect of the ASLB's decision.

22 CHAIRMAN PALLADINO: I believe Commissioner
23 Asselstine has some questions on cheating.

24 COMMISSIONER ASSELSTINE: I have a couple of
25 questions on cheating and then two on training.

1 On the cheating incident, what bearing do you
2 believe does the cheating incident have on our ability
3 to rely on you and your personnel for accurate and
4 reliable information, particularly during an emergency?

5 MR. ARNOLD: I don't believe that the cheating
6 incident or any of the information that was developed in
7 any of the investigations that followed that should
8 indicate any lack of confidence in the willingness of
9 the company, the willingness of the company or the
10 reliability of the company to provide information to the
11 NRC, not only during emergency but during the course of
12 normal business as well, and if anything, I think the
13 NRC should be greatly reassured by the openness with
14 which the company has made available all information we
15 had on cheating, all of our records, and we have
16 attempted to support and cooperate in every way possible
17 with the NRC's investigation into it.

18 COMMISSIONER ASSELSTINE: You imposed
19 disciplinary action on two individuals that were
20 involved in cheating incidents on company quizzes. That
21 disciplinary action, as I understand it, involved a
22 two-week suspension without pay for each of those
23 individuals. Do you think that disciplinary action was
24 sufficient to send a message to your personnel that
25 cheating would not be tolerated within your

1 organization, and why did you elect not to impose
2 stronger disciplinary action?

3 MR. ARNOLD: Had we had just a case of people
4 cheating on company administered quizzes, I'm not sure
5 how I would answer your question, but I think the
6 penalty in this case has to be viewed in the context of
7 all of the effort that has gone into this whole area.
8 It has to be recognized that the two people that cheated
9 on NRC examinations were terminated from employment with
10 the company, and while I would not identify specifically
11 the penalty imposed on G and H to be sufficient to send
12 the right message, I think in the aggregate we have used
13 a rather large two by four, and we have rather gotten
14 our own attention and our people's attention.

15 COMMISSIONER ASSELSTINE: Our licensing board
16 seems to have relied very heavily on operator training
17 in deciding that the plant can operate safely, yet the
18 board also found that there were QA deficiencies for the
19 operator training program. In view of this lack of
20 quality assurance for the operator training program,
21 what confidence can we have that your operators are
22 trained to safely operate the plant?

23 MR. ARNOLD: I think the first thing one looks
24 at, Commissioner, is what independent check has been
25 made by the NRC and its staff for validating the

1 qualification level of those people, and all of the
2 people who will be licensed operators on TMI 1 upon its
3 restart have been re-examined or examined initially
4 under new NRC procedures with new approaches to
5 structuring examinations to maximize the assurance that
6 they in fact measure the capability level of the people,
7 and our people have passed those examinations.

8 So that I believe that is the first and
9 probably a major point that also has obviously quality
10 assurance aspects to it. As one looks at the
11 examinations that the company has administered to
12 support the licensing of the people and in some cases
13 that were commitments as part of restart to give them in
14 the way of training, those examinations have been
15 conducted using our new procedures, and I believe that
16 we can have adequate confidence in the training they
17 have received as being effective, and we have initiated
18 putting into place and have many of the actions already
19 completed that provides the kind of quality assurance
20 program application of the training department that I
21 believe the ASLB was looking for.

22 COMMISSIONER GILINSKY: I wonder if I can
23 return to this VV matter, Mr. Arnold. When did you find
24 out and from whom that a relicensing was in fact at
25 issue in this case?

1 MR. ARNOLD: My best recollection,
2 Commissioner, is that it was during the reopened
3 hearings into the cheating incident.

4 COMMISSIONER GILINSKY: From the NRC?

5 MR. ARNOLD: I don't have a clear
6 recollection.

7 COMMISSIONER GILINSKY: In any case, what did
8 you then do about that?

9 MR. ARNOLD: At the time that that initially
10 came up, we were into the ASLB proceedings on that
11 issue, and while we have attempted to ensure full and
12 thorough investigation of any questionable issues by the
13 company itself, we have tried to studiously avoid doing
14 that in ways that would interfere with or appeared to
15 interfere with investigations being conducted by the
16 NRC. So that I held in abeyance any pursuit of that
17 pending the outcome of the reopened hearings.

18 I might say that there was recognition by the
19 ASLB that while interference has got to be a
20 consideration, pursuit of the issues by the company has
21 to be done aggressively as well, and in some way or
22 another we've got to find a way of balancing our mutual
23 responsibilities.

24 COMMISSIONER GILINSKY: What I was driving at
25 is, did you take any personal actions that were

1 specifically related to that discovery?

2 MR. ARNOLD: Not at that time, because I think
3 as subsequent investigations have borne out some of the
4 initial impressions of what the circumstances were were,
5 I think, erroneous, and I did not feel it was necessary
6 inasmuch as Mr. VV had been removed from a supervisory
7 position in 1979 at the time the incident occurred, that
8 he was not performing license duties since that time, as
9 it turned out, and we did not renew application for his
10 license to the best of my knowledge. Our instructions
11 were to that effect when his current license expired.

12 COMMISSIONER GILINSKY: But did Mr. Zeckman
13 continue as training director?

14 MR. ARNOLD: He had already been assigned to
15 another position within the training section where he is
16 at this time, but I did not frankly obtain from the
17 hearings the level of information that is available
18 today. You might recall that the hearings were held
19 with a sequestration order. I felt that I was one that
20 was exempted to some extent from the sequestration
21 order, and frankly I was concerned that we not confuse
22 whether or not I was observing that.

23 COMMISSIONER GILINSKY: Let me just take you
24 back one more time to the previous occasion of '79. How
25 did Mr. Miller or Mr. Herbine or whoever informed you

1 explain why they were docking the man's pay if this did
2 not involve a license renewal? How did they explain the
3 seriousness of it?

4 MR. ARNOLD: I am not sure if we have a common
5 understanding of what was done in 1979. There was a
6 feeling, a judgment on the part of Mr. Miller and Mr.
7 Herbine that Mr. VV should be disciplined for failing to
8 recognize what constituted proper performance in the
9 fulfilling of the training program requirements, that he
10 was accountable for that despite the rationale he gave
11 for it. I agreed with that. I did not agree with the
12 company's appropriate response for that in conjunction
13 with other experience we had had with the individual
14 would be a one or two weeks' suspension without pay, and
15 insisted instead that he be removed from a supervisory
16 position which I think is clearly a much stronger
17 disciplinary action.

18 COMMISSIONER GILINSKY: Can you explain why
19 they would not tell you that a relicensing was at
20 issue? I mean, that is what makes it very much more
21 important than simply handing in a take-home assignment
22 in someone else's handwriting.

23 MR. ARNOLD: I think that clearly is an issue,
24 but I don't think we have the results of the
25 investigations sufficiently far enough to know whether

1 or not that was indeed the case. As I say, at this
2 point my understanding is that there was not a letter
3 being provided or required at that time for renewal of
4 his license.

5 CHAIRMAN PALLADINO: I am going to suggest
6 that we shift to another area. We do have the area of
7 emergency planning, and then we have additional areas
8 involving hardware. Who would like to begin on
9 emergency planning questions?

10 COMMISSIONER AHEARNE: This is an emergency
11 planning question, and I am asking it of Mr. Arnold, and
12 I recognize your answer might well be that I should ask
13 FEMA, but they are not here, so I will ask you.

14 In the latest FEMA status report on October 6,
15 they reference, and they are going down the list of
16 items that must be completed to fulfill several of the
17 licensing board conditions in emergency planning, the
18 emergency plan for Elizabethtown State College. They
19 mention they had no, as I believe the FEMA statement is,
20 they do not know its status and certainly do not know
21 when it is going to be ready. I wonder if anyone from
22 GPU knows.

23 MR. ARNOLD: I wanted to check my information,
24 Commissioner, before I responded. We have been working
25 extensively with Elizabethtown College and provided

1 whatever assistance we can, and our understanding now is
2 their plan has been submitted to the state. I believe
3 it is acceptable by the state, but it has not yet been
4 submitted to FEMA, and I am not aware of any reason that
5 that won't be able to be done very shortly.

6 COMMISSIONER AHEARNE: Okay. The next
7 question I had on emergency planning has to do with the
8 issue of where the licensing board and the appeal board
9 seem to differ, and that is how you are going to
10 actually handle an emergency, and so I wonder if you
11 could walk through perhaps using one of the charts you
12 provided who it is that would come to the site and who
13 would be in charge during the stages of emergency, and
14 let's talk about the general emergency and major
15 emergency. Who would be in charge both on-site and
16 off-site?

17 MR. ARNOLD: I am not sure if one of our
18 charts lends itself to assisting with this significantly
19 or not, Commissioner.

20 COMMISSIONER AHEARNE: I suggest Number 2
21 might.

22 MR. ARNOLD: All right. In a general
23 emergency where we man fully both on-site and off-site
24 facilities, there are two senior management positions to
25 be fulfilled. They are the emergency director who is on

1 site or the emergency support director who goes to the
2 off-site emergency operations facility. The people
3 that --

4 CHAIRMAN PALLADINO: Can you identify them by
5 name on this chart?

6 MR. ARNOLD: The people that we currently have
7 qualified as emergency operations or, excuse me, as
8 emergency support directors are myself, Mr. Clark, Mr.
9 Hukill, and Mr. Culitz, who is shown on Sheet Number 4,
10 plus Mr. Toole, who is shown on Sheet Number 4. The
11 people that we have qualified as emergency director are
12 Mr. Hukill, Mr. Toole, Mr. Ross, and Mr. Culitz.

13 We have duty assignments set up so that at the
14 current time 24 hours a day an emergency director is
15 available on one hour call, an emergency support
16 director is available on one hour call from that pool of
17 people.

18 COMMISSIONER AHEARNE: That last comment, you
19 say the emergency support director is available on one
20 hour call. What does that mean? Does that mean that
21 they have to be able to be reached in one hour, or they
22 can reach the site in one hour?

23 MR. ARNOLD: No, it means that they have to be
24 able to be to the emergency operating facility.

25 COMMISSIONER AHEARNE: In one hour.

1 MR. ARNOLD: In one hour.

2 COMMISSIONER AHEARNE: If I can go a little
3 further, when you say that you have a 24-hour duty
4 assignment, does that mean in each block of the day one
5 of these people is the person on call? Obviously, what
6 I'm trying to get to is, it is my understanding of the
7 licensing board that some of the people you have listed
8 as emergency support directors would not be able to get
9 there between something like four hours or perhaps
10 longer.

11 MR. ARNOLD: Well, Mr. Clark and myself have
12 our headquarters located in Parsipone, New Jersey, and
13 we felt and argued before the ASLB that we ought to be
14 able to supply the emergency support director within
15 four hours, and the issue was one of who would make
16 recommendation to state on emergency actions or
17 effective action, and we felt that that could reasonably
18 stay with the emergency director.

19 COMMISSIONER AHEARNE: I have read the
20 decisions. I know what the decisions say.

21 MR. ARNOLD: So where we are right now is, if
22 either Mr. Clark or myself are not available in the
23 area, and frequently I am, then one of the others would
24 be available within the one hour.

25 COMMISSIONER AHEARNE: So what you are saying

1 is, the company's position now is there will be an
2 emergency support director at the EOF in one hour.

3 MR. ARNOLD: That currently is our commitment,
4 although the ASLB has indicated hearing of arguments to
5 the contrary.

6 COMMISSIONER AHEARNE: The gentleman on your
7 left seems to be trying to give you some advice.

8 MR. BLAKE: Mr. Ahearne, I only wanted to make
9 clear that we are continuing to abide by the licensing
10 board's decision, even though our position was favored
11 before the appeal board, because quite frankly at this
12 point we don't know that the appeal board decision -- we
13 can rely on until the Commission itself has decided, so
14 we are taking the most conservative position in
15 continuing to abide by the one-hour commitment, and will
16 do so until this has been straightened out.

17 COMMISSIONER AHEARNE: Mr. Blake, does that
18 mean that if the appeal board position were to hold that
19 the one hour for the support director would pass away?

20 MR. BLAKE: Yes.

21 MR. ARNOLD: Yes, it would mean that.

22 COMMISSIONER AHEARNE: So you are not then
23 committed to staying with that.

24 MR. BLAKE: No, that is what I wanted to clear
25 up. We are continuing to abide by the most

1 conservative, but quite frankly, at the time we get
2 approval to start up, we would seek guidance from the
3 Commission on that very subject. Not hearing any, we
4 will continue to abide by the one hour.

5 COMMISSIONER AHEARNE: Are you uncomfortable
6 with some of the people you have now qualified for
7 emergency support director?

8 MR. ARNOLD: Before I answer that, I did hear
9 it -- we would like to go back to Elizabethtown College
10 with more up to date information.

11 COMMISSIONER AHEARNE: The latest returns.

12 MR. ARNOLD: We are not uncomfortable with the
13 people we currently have available for emergency support
14 director or emergency director. What it seems to us is
15 that obviously in non-working hours or outside of normal
16 working hours, let's say, a limited number of the total
17 pool of people would be available to respond in one
18 hour. Our suggestion or our request is that we be
19 permitted some flexibility in where we place the two
20 most senior people in the first few hours of dealing
21 with it rather than having to necessarily place one of
22 them in the EOF during those first few hours.

23 COMMISSIONER AHEARNE: I tell you one of the
24 things that is now puzzling me, based upon having read
25 the board orders, and having read some of the licensee

1 responses, and now looking at your charts and what you
2 just said, it occurs to me you have qualified four
3 people for emergency director, you have qualified five
4 people for emergency support director.

5 Now, put aside Mr. Arnold and Mr. Clark, who
6 are the four hour people, although, as you say,
7 sometimes one of you is actually in the area. In the
8 discussions I thought that underlay some of the
9 disagreement on the board, the argument that the
10 licensee was making was that they would rather have the
11 most senior person make those decisions. That most
12 senior person might be the person on site, the emergency
13 director.

14 If I look through your list, I find that in
15 addition to Arnold and Clark, the other people who are
16 off-site are Hukill, Culitz, and Toole, but Hukill,
17 Culitz, and Toole are three of the four people who are
18 qualified for emergency director, so clearly it is not
19 that you would want somebody in the plant to be the more
20 senior person, because they really are the more senior
21 person, the same people, and Mr. Ross, if your chart is
22 correct, and perhaps organizational charts don't really
23 imply something, but it looks like he is less senior
24 than Hukill, Culitz, or Toole, so I don't understand the
25 argument.

1 MR. ARNOLD: If I could just take perhaps 30
2 seconds to try to clarify, if we take the example of,
3 let's say, Mr. Culitz and Mr. Hukill, the two that were
4 available, if we have those two, I would prefer to have
5 Mr. Hukill on the site as emergency director, and have
6 authority to make recommendations for protective action
7 in that position rather than being mandated that they be
8 made from the emergency support director, given the
9 situation where in order to do that and have the most
10 senior person with the authority and responsibility for
11 doing it having to put Mr. Hukill over at the EOF, not
12 because I don't have confidence in Mr. Toole, but if I
13 have Mr. Hukill available during that first hour or so,
14 I would like him in the control room.

15 COMMISSIONER AHEARNE: I gather then the
16 argument would be, if you happen to be in the area, you
17 would prefer to be in the control room.

18 MR. ARNOLD: No, sir, because I don't have
19 that level of detailed knowledge of the plant, and I
20 would think that it was more appropriate for me to serve
21 as the emergency support director and let the people who
22 are with the plant day to day be the emergency
23 director.

24 COMMISSIONER AHEARNE: Isn't the issue,
25 though, as to the emergency support director as I think

1 either you or Mr. Blake alluded to, makes
2 recommendations for protective action with respect to
3 giving recommendations to the state. I am not sure that
4 necessarily requires the most detailed knowledge of the
5 plant.

6 MR. ARNOLD: I am sorry, Commissioner. I
7 don't think I followed your question.

8 COMMISSIONER AHEARNE: Well, the issue that is
9 under debate, I think, is who makes the decision to
10 recommend protective action. Who makes the
11 recommendations, for example, for the state.

12 MR. ARNOLD: Yes.

13 COMMISSIONER AHEARNE: And that is the
14 individual who so far seems to be the emergency support
15 director, and I thought the licensee's issue was, you
16 wanted the most senior person to be making that, the
17 most senior person therefore, if he is in the control
18 room, and it would appear to me that as long as you have
19 the ability of this most senior person in the area, it
20 doesn't really make that much difference whether he is
21 off-site or on-site, is your argument. Is that
22 correct?

23 MR. ARNOLD: I don't think so. I think our
24 argument is that it is important to let the most senior
25 person go to the site, and not --

1 COMMISSIONER AHEARNE: Yes, your point is, you
2 want the most senior person to make the recommendation.
3 You also want the most senior person as long as he is
4 knowledgeable on the plant to be on site. Is that
5 correct?

6 MR. ARNOLD: That is correct.

7 COMMISSIONER AHEARNE: And your argument is
8 that neither you or Mr. Clark are that knowledgeable of
9 the plant.

10 MR. ARNOLD: Right.

11 COMMISSIONER AHEARNE: So even when you arrive
12 there, you are the most senior person, it is appropriate
13 for you to be off-site.

14 MR. ARNOLD: Yes.

15 COMMISSIONER AHEARNE: But of the rest of the
16 set of people, it is most appropriate for them to be
17 on-site.

18 MR. ARNOLD: In many combinations, yes, sir.

19 CHAIRMAN PALLADINO: Is that all?

20 COMMISSIONER AHEARNE: Let me just have one
21 other, now that I think I understand the structure you
22 are proposing. I guess you must be still not at the
23 point where you feel it would lead to a serious safety
24 problem if you follow the licensing board's condition,
25 because the arguments that I have read that you have

1 made to the appeal board on the licensing board didn't
2 really seem to focus or turn that much on a serious
3 safety issue. Is that correct?

4 MR. ARNOLD: I think it is correct that it is
5 not a serious safety issue. We would certainly do
6 whatever is necessary to avoid it being a serious safety
7 issue.

8 COMMISSIONER AHEARNE: The last question, as I
9 recall, the last time we discussed management
10 competence, one of the questions that came up was, after
11 you were identifying the people that would be in this
12 type of a role making the major address of these issues,
13 there was a question as to whether they had training in
14 commercial nuclear power. I think the issue came up
15 since you had mentioned at the time that one of the
16 strengths of your organization were these people who had
17 a substantial amount of Navy nuclear background, and the
18 question was raised, in the operating of the commercial
19 nuclear power plant, particularly the details of these
20 specific plants, there might be subtleties, nuances,
21 details that would be useful for them to get more
22 experience.

23 At the time, a year ago, I thought there was
24 some commitment to assure that that was done. Has that
25 been done?

1 MR. ARNOLD: Yes, we have conducted training
2 for the senior managers who are new to the organization
3 and would be assigned to the position of emergency
4 director or emergency support director. The training
5 also included those of us that were not formerly
6 required to complete it under the commitment, but I also
7 attended the training, and the only outstanding item we
8 have at this point on that is that Mr. Clark and myself
9 had to sit for one of our examinations on that
10 material.

11 I might also mention that I think much of that
12 concern about the background in the commercial water
13 reactors has, I think, been mitigated by the involvement
14 Mr. Hukill and Mr. Clark have had over the past two
15 years.

16 COMMISSIONER AHEARNE: And you were going to
17 tell me something about Elizabethtown.

18 MR. ARNOLD: It is one step behind where I
19 described it. It has been approved by the college. It
20 has not been approved by FEMA yet.

21 COMMISSIONER AHEARNE: But has it been
22 approved by the state?

23 MR. ARNOLD: It has not gone in to the state.

24 CHAIRMAN PALLADINO: We have already used the
25 better part of an hour and a half. We still have some

1 technical questions. I have one I would like to
2 address. In the recent appeal board preliminary
3 decision, they have indicated that in order for natural
4 circulation to be effective in the plant, that they feel
5 there is going to be a need for high point vents in hot
6 legs, and a dedicated individual to operate the flow
7 control valves manually in the event that the valve
8 control system failed following the onset of an
9 accident.

10 I wonder if you could give your views on these
11 comments by the appeal board.

12 MR. ARNOLD: Mr. Clark is the one who is most
13 current on that effort, and I would like him to take
14 that, Mr. Chairman.

15 MR. CLARK: We of course will file a formal
16 response to the appeal board, but the issue of assuring
17 cooling of the core and removal of the heat was
18 extensively discussed during the hearing process. The
19 first line of reliance is on the emergency feedwater
20 system. We and the staff, considering all the evidence,
21 were satisfied that the emergency feedwater system can
22 be relied upon. It is equal to that of many other
23 plants which are in operation when the emergency
24 feedwater system is being relied upon, and we think
25 properly so.

1 Over and above that, we have at TMI what some
2 other plants do not have, the ability to use the feed
3 and bleed mode of cooling. We believe that the adequacy
4 of that mode of cooling has been demonstrated by codes
5 which are benchmarked to LOFT and other prior tests.
6 The recent tests to which the appeals board refers did
7 not undercut in our view, in the view of the people who
8 ran the test at EG&G, or in the view of the NRC staff,
9 those test results do not undercut the validity of the
10 codes which have been used to demonstrate that feed and
11 bleed cooling is an adequate way and a backup over and
12 above the emergency feedwater system itself.

13 CHAIRMAN PALLADINO: The appeal board
14 recognizes that the emergency feedwater system would
15 probably be satisfactory after we got safety grade
16 integrated control system, which I believe you are going
17 to do some time in the future, but they found it
18 inadequate for the present, and they also did have some
19 doubt about the efficacy of the feed and bleed because
20 there has been no test, I believe, of the feed and bleed
21 as you propose it, and the semi-scale test did cast some
22 doubt on it.

23 So the appeal board feels, at least for the
24 interim, until you get the emergency feedwater system so
25 that it is safety grade, that the high point vents in

1 the hot legs and the manual controls of the valves is
2 necessary.

3 MR. CLARK: The appeal board initial decision
4 clearly says they have questions on the matter, and
5 those are going to have to be addressed. What I was
6 reflecting is that the questions are not new and not
7 unique to TMI 1, that they were addressed in the hearing
8 process itself, that with regard to the recent test, the
9 staff that ran the tests and reported them said that
10 they should not be used to draw conclusions with regard
11 to the adequacy of feed and bleed, that the reliance in
12 this and many other areas is on calculations made by
13 codes, which codes are compared or benchmarked against
14 test data, that such a code exists, is qualified and
15 approved for TMI 1 and has been used to calculate that
16 the feed and bleed would operate properly.

17 Now, we are going to have to address that
18 further with the appeals board. They stated that they
19 had not yet fully reviewed the record which had been
20 developed during the basic licensing board hearing. I
21 guess it is our hope and belief that full review of that
22 record will resolve the doubts that the appeals board
23 has raised.

24 COMMISSIONER GILINSKY: How difficult would it
25 be for you to install such vents?

1 MR. CLARK: We, of course, are preparing to
2 install such vents. We have a design. We have a plan
3 similar to what many other plants are doing to them in
4 our next refueling outage. I guess at this point we
5 feel it would be limiting to restart, that there is a
6 substantial amount of work in installing the vents,
7 running the piping, the foundations, the supports on the
8 entire system that goes with the high point vents.

9 CHAIRMAN PALLADINO: Could this not be done in
10 the same time frame when you are repairing steam
11 generator tubes?

12 MR. CLARK: Our view at this point is that it
13 could not. Our planning had not called for it to be
14 done in that time frame. We think there are a great
15 many design changes that came out of the TMI 2 accident
16 and Lessons Learned. The Commission, we, and many
17 others wrestled with those, and put a priority on them
18 with regard to which ones contributed most to safety and
19 should be done first.

20 There were schedules set for all of those
21 modifications. We made about 70 modifications to the
22 plant. There are additional ones, of which this is one,
23 that are to be made, but where the Commission and we had
24 recognized a lower priority and the acceptability for us
25 and others of doing it at a later date.

1 COMMISSIONER GILINSKY: It sounds to me like
2 you are not changing your schedule, but are required to
3 argue before the appeal board.

4 MR. CLARK: We have been and will continue to
5 attempt to get ready to put the high point vents and all
6 of the modifications in on schedule, you know, the best
7 schedule we can support. I don't think we feel that the
8 high point vents per se from a priority standpoint stand
9 out that much. We do believe that the record should
10 convince the appeals board, and we are going to attempt
11 that, but we will continue to work on being able to put
12 in the high point vents as soon as we can.

13 My counsel has said to note that the high
14 point vent schedule is in fact based on a Commission
15 order. The schedule we are working to arises from a
16 Commission order reflecting the priority.

17 CHAIRMAN PALLADINO: Commissioner Ahearne has
18 a hardware question.

19 COMMISSIONER AHEARNE: Close followers of this
20 long hearing process know that each of the Commissioners
21 has a particular area that they are particularly
22 interested in, and we always take the opportunity to ask
23 about, and therefore water level indicators would
24 clearly be something that I would clearly have to ask
25 about, and I would like to. It is probably going to be

1 either Mr. Clark or Mr. Arnold, but since the lawyer are
2 the ones who signed the statements I am going to quote,
3 I guess I will start officially with asking Mr. Blake.

4 Back on February 1st, in a filing, the
5 licensee said at the time, licensee's position before
6 the licensing board was that additional instrumentation
7 to detect inadequate core cooling in the form of water
8 level indication is not necessary at TMI 1. In a
9 November 1st filing -- I guess it's probably the latest
10 -- it says, licensees filed an exception challenging the
11 licensing board's finding that additional
12 instrumentation in the form of reactor vessel level
13 instrumentation is necessary for the long-term operation
14 of TMI 1.

15 I gather you were quite pleased that the
16 licensing board found you were making progress, but you
17 still, as I understand it, take exception that such
18 additional instrumentation is needed.

19 MR. BLAKE: Commissioner Ahearne, I would ask
20 Mr. Baxter, who actually tried this portion of the case
21 in the design phase and is involved with the letters to
22 which you refer, to respond to your question.

23 MR. BAXTER: I think, Commissioner Ahearne, a
24 major part of the case we put on before the licensing
25 board, and I attempt to inject the word now every time I

1 express our position, we did not feel that the state of
2 study of potential additional instrumentation to detect
3 inadequate core cooling was at a point where we could
4 now say that a given piece or design was required or
5 necessary and should proceed with installation.

6 It was our position that the matter should be
7 studied in a more deliberate way, that we should develop
8 our purposes more clearly, and then decide what we are
9 going to do with it if we put it in.

10 COMMISSIONER AHEARNE: Mr. Baxter, I am
11 confused between whether you are saying that you don't
12 think that instrumentation could be made available or
13 whether if it could be made available it would be
14 necessary, and I thought as I read the filings that the
15 argument was that even if it could be made available, it
16 would not be necessary, and then in addition you didn't
17 think it could be made available. Is that incorrect?

18 MR. BAXTER: We feel that the short-term
19 requirements that we have in place now to detect
20 inadequate core cooling are adequate. Beyond that, we
21 don't disagree with the lessons learned.

22 COMMISSIONER AHEARNE: Mr. Baxter, the quote
23 that I read said that even in the long term there is a
24 disagreement. Licensee filed an exception challenging
25 the licensing board's finding that additional

1 instrumentation in the form of reactor vessel
2 instrumentation is necessary for the long term. So is
3 it your position that even in the long term it is not
4 necessary?

5 MR. CLARK: I think we believed then and
6 believe now that there is adequate instrumentation to
7 operate the plant safely and protect the public, and
8 that we have instrumentation and procedures which
9 unequivocally tell the operator what to do. I think we
10 also believe that it may be possible to provide
11 additional instrumentation which would enhance safety by
12 giving the operator better, more timely, diverse, or
13 additional information on which to base his actions.

14 Water level, which was the initial term for
15 that, which has, you know, now come around to be
16 inventory trending or something different, may well fall
17 in that category. We are proceeding with the design of
18 an instrument to measure delta P in the hot leg of the
19 plant. We are prepared to install that. We are looking
20 at whether additional instrumentation over and above
21 that would be helpful.

22 We also recognize that even in those plants
23 where they are proceeding to install a "water level
24 indicator" with Commission approval of the design, that
25 they and the Commission are as yet unwilling to let the

1 operators use that instrumentation until they have
2 completely gone through how to use it, how to avoid
3 having the additional instrumentation be confusing to
4 the operators.

5 COMMISSIONER AHEARNE: I am sure you would
6 endorse that, though.

7 MR. CLARK: Absolutely. However, I think that
8 concern about that instrument and exactly how we will
9 use it underlies our concern of going too quickly to put
10 in something which would turn out to be harmful and not
11 helpful. So we have adequate instrumentation as to
12 other plants. We are proceeding with the design of
13 additional instrumentation and attempting to find how to
14 use it to help the operator and to also assure that it
15 will not interfere with them.

16 COMMISSIONER AHEARNE: The company then, its
17 current position is that -- I don't want to put words
18 in your mouth on it, but it sounds like you are saying
19 that you will develop and put in the instrumentation
20 because we are requiring it, but had you your druthers,
21 you would not do it.

22 MR. CLARK: No. I think our earlier position
23 before we agreed to put in anything was our firmly held
24 technical belief that we did not see that it would be
25 helpful, and we were concerned that it would be harmful

1 for the delta P measurement in the hot leg for which we
2 have said we will proceed with the design. Further
3 study, discussion of the information coming available as
4 we all work on this problem has satisfied us that in net
5 it would be helpful to have that instrument, and we are
6 planning to put it in, but it is now scheduled after
7 restart.

8 COMMISSIONER AHEARNE: I wasn't talking about
9 the scheduling so much as the position.

10 MR. THOMAS: It is fair to say that there are
11 members of RACRS who share that view.

12 CHAIRMAN PALLADINO: I think I am going to
13 have to turn to others on the agenda, but I think
14 Commissioner Asselstine had one question, and I think
15 Commissioner Gilinsky had one more, and you have two
16 more. Can we make them brief? We would like to hear
17 from the other parties.

18 COMMISSIONER ASSELSTINE: I will try to make
19 mine fairly brief.

20 Mr. Clark, you mentioned your reliance on
21 codes. The NRC staff submitted testimony to the board
22 in this proceeding to the effect that the existing codes
23 used to predict the thermal hydraulic behavior of
24 Babcock and Wilcox design facilities were satisfactory
25 for now pending receipt of additional research

1 information over the next few years.

2 As I understand it, the Babcock and Wilcox
3 owners' group have proposed to use two industry
4 facilities, Gerta and SRI 2 facilities for that
5 purpose. However, our Advisory Committee on Reactor
6 Safeguards has advised us that they don't believe that
7 those facilities may be adequate for that purpose.

8 I guess what concerns me is that we may not be
9 moving to get the information we need on the
10 non-experimental research results, and I am interested
11 in what you all as a member of that owners' group are
12 doing to assure that we get that information that was
13 presented as necessary to the board in this proceeding.

14 MR. CLARK: There has been an ongoing
15 discussion as to exactly what information is needed to
16 adequately qualify the codes for all the possible
17 conditions. The owners' group of which we are a member
18 and feel we have taken a leadership role in has proposed
19 and is proceeding at this time with tests in the Gerta
20 and SR 2 facilities which we believe adequately address
21 all of the identified concerns by the staff.

22 In addition, recognizing the judgment that is
23 involved and the fairly recent ACRS statement of their
24 view, we had embarked and will continue discussions with
25 the staff as to whether and what additional test data

1 would be qualified or would be needed in their judgment
2 to qualify, and look to come to a resolution, but
3 meanwhile, in the areas where we agree additional data
4 is needed, we in fact are proceeding with the tests
5 right now.

6 CHAIRMAN PALLADINO: A quick one?

7 COMMISSIONER GILINSKY: Yes. I want to return
8 to what I was asking Mr. Arnold about. You may have
9 answered this before. If you did, perhaps you could
10 repeat your answer. But I want to make sure that I am
11 very clear on what the answer is.

12 Who was it that informed you back in 1979
13 about the VV matter? And I must say I am surprised -- I
14 think I expressed that before -- that they would not at
15 the same time tell you that a requalification for
16 license renewal was involved, and I wonder if you have
17 any explanation for that.

18 MR. ROSS: Mr. Herbine is the one that
19 informed me of the incident involving Mr. VV. He did
20 not inform me as to any license renewal or any submittal
21 required to the NRC, to the best of my recollection, and
22 as to why he didn't or what he knew about it, I am
23 not --

24 COMMISSIONER GILINSKY: I am not speaking now
25 about the submittal. The fact that the examinations

1 were in fulfillment for a requirement for
2 requalification.

3 MR. ARNOLD: I understood them to be part of
4 our ongoing retraining program, and the fact that he had
5 to complete those as part of our program design, and
6 that is what they were. I don't know if you are
7 identifying a different sense with these or not.

8 COMMISSIONER GILINSKY: Well, it was
9 specifically part of an examination to requalify for
10 license renewal, and it was something that needed to be
11 reported on to the NRC, and I guess what you are saying
12 is, you were not informed of the last part.

13 MR. ARNOLD: I don't think I would agree with
14 the first part either. Had he passed on an appropriate
15 basis with his own work, what he turned in, he would
16 have been back in good standing in the retraining
17 program, but had he done all of the work himself and
18 failed that, he would not have been disqualified or have
19 lost his license at that point. He would have been
20 required to do just exactly what happened when the work
21 wasn't his own, that is, being assigned to an
22 accelerated retraining program, the completion of which
23 was required satisfactorily, was necessary to be able to
24 maintain his license.

25 COMMISSIONER GILINSKY: In retrospect, do you

1 think this is something that should have been reported
2 to the NRC?

3 MR. ARNOLD: Yes, sir.

4 CHAIRMAN PALLADINO: Commissioner Ahearne had
5 two yes or no questions.

6 COMMISSIONER AHEARNE: Okay. The first is Mr.
7 Arnold. I think I have finally gotten straight those
8 two different organizations, and it appears to me that
9 given the confidence you have in the relative
10 individuals, that there really is no need for either you
11 or Mr. Clark to come to one of those accidents. Is that
12 correct?

13 MR. ARNOLD: I think that if we have an
14 accident, we certainly learned from TMI 2 we want all
15 the resources there that we can muster on station, so I
16 don't think I quite agree with that characterization.
17 What I would say is that for the period of time in the
18 first few hours it is necessary to mobilize and deal
19 with the initial events in the course of an accident,
20 that the people we would have available absent Mr. Clark
21 and myself are sufficient to effectively deal with the
22 situation.

23 COMMISSIONER AHEARNE: The other question was
24 to Mr. Dieckamp. We have been, at least some of us have
25 been following with some interest the statements that

1 other lawyers representing you in another court, namely,
2 where I think your adversary is B&W, and I wonder
3 whether you were putting on any kind of a quality
4 control comparison just to make sure that licensee
5 positions that have been taken in front of our boards
6 are the same as positions that are being taken there.

7 MR. DIECKAMP: Certainly, all the information
8 that is part of this record for the ASLB and the appeal
9 board is available to the attorneys that are handling
10 the B&W litigation. On the other hand, I am sure you
11 recognize that there are matters of style that various
12 trial lawyers use, and I think that is what we are
13 seeing in the various newspapers.

14 COMMISSIONER AHEARNE: We will be reading the
15 transcripts with some interest, and I was just wondering
16 whether you were also.

17 MR. ARNOLD: Commissioner Ahearne, if I could
18 just address the quality assurance aspects of it, all of
19 the information that we are using in these proceedings
20 and related ones are certainly available and being
21 utilized by B&W's attorneys, so I think there is a great
22 deal of QC check.

23 COMMISSIONER AHEARNE: Yes, but Mr. Arnold, I
24 think an underlying issue over the years has been not
25 just what information you have, but how do you use it.

1 MR. ARNOLD: Yes, sir.

2 CHAIRMAN PALLADINO: Thank you, gentlemen.

3 At this time, we will excuse the GPU Nuclear
4 personnel, and ask the Union of Concerned Scientists to
5 come up to the table, and while they are doing that, I
6 am going to suggest the Commission take a five-minute
7 recess.

8 (Whereupon, a brief recess was taken.)

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1 CHAIRMAN PALLADINO: Ladies and gentlemen,
2 would you please take your seats so we can reconvene?

3 The next presentation will be made by the
4 Union of Concerned Scientists, a presentation of ten
5 minutes.

6 MS. WEISS: You are missing a Commissioner.
7 Shall we go ahead?

8 CHAIRMAN PALLADINO: We are trying to get him
9 in here. There he is.

10 STATEMENT OF ELLYN R. WEISS ON BEHALF OF
11 THE UNION OF CONCERNED SCIENTISTS

12 MS. WEISS: Gentlemen, my name is Ellyn Weiss
13 with the law firm of Harmon and Weiss in Washington. I
14 represent the Union of Concerned Scientists. With me is
15 Robert Pollard, of the Union of Concerned Scientists,
16 and the way you can tell us apart is that I have the
17 name tag and he does not.

18 The Commission today considers whether or not
19 to make the decisions of the Atomic Safety and Licensing
20 Board immediately effective. If you do so, you will
21 allow this plant to go into operation without further
22 substantive review by the Commission or the Appeal Board
23 of the many grave issues that have been raised about the
24 safety of the plant and the competence and integrity of
25 its management and GPU.

1 In the time allotted, I can do little more
2 than allude to a very few of these issues. In that fact
3 alone, the complexity of some of these issues and the
4 length of the record, which I am told now is over 26,000
5 pages, argues, in my view, forcefully the Commission
6 should let the Appeal Board complete its review of this
7 record.

8 We urge you not to circumvent this process by
9 authorizing restart. I will begin by addressing what
10 seems to me the most clear reason at this point why you
11 should not make the Licensing Board's decision
12 immediately effective, and that is because the Appeal
13 Board has already said that with respect to, at least one
14 central safety issue raised and pursued by the Union of
15 Concerned Scientists the Licensing Board was wrong and
16 we were right.

17 The issue is the adequacy of decay heat
18 removal for TMI-1. Surely one of the most significant
19 lessons learned from the TMI-2 accident was the
20 importance of decay heat removal. The Licensing Board
21 relied heavily and frequently on the use of the
22 so-called feed and bleed cooling mode to remove decay
23 heat.

24 Feed and bleed, as you are aware, involves use
25 of the high pressure injection pumps to feed water into

1 the primary system and use of the PORV or the
2 pressurizer safety valves to bleed it. The Licensing
3 Board relied on this mode because neither main feedwater
4 nor emergency feedwater for TMI are safety grade, and if
5 feedwater is lost, as one must therefore postulate, feed
6 and bleed is the only way to remove decay heat or keep
7 the core from overheating.

8 Moreover, even if feedwater is available, there
9 is a range of break sizes where steam voiding will
10 occur, interrupting natural circulation and in fact that
11 range constitutes the majority of small break LOCAs. In
12 such situations, the operators are taught to turn on
13 high pressure injection to totally refill the primary
14 system.

15 For some of these break sizes, HPI flow will
16 exceed the flow through the break. The pressure in the
17 primary system will continue to rise until it reaches
18 the set point of the PORV or the safety valves and the
19 plant is then into feed and bleed.

20 I stress that none of the above involves
21 postulating anything beyond the purported design basis
22 for this plant. The problem is, of course, that the B&W
23 computer model used during licensing was inaccurate. It
24 did not predict the formation of steam voids.

25 Although the Commission ordered as one of the

1 lessons learned that all of the plants should install
2 high point vents, such steam and non-condensable gases
3 could be removed in the event of interruption of natural
4 circulation, the deadlines for implementation have been
5 continually extended and extended, so that now, 3-1/2
6 years after the accident, TMI-1 has no high point
7 vents.

8 The Licensing Board relied in finding that
9 TMI-1 was safe enough to operate, on a postulated
10 cooling mode and an improvised cooling mode that had
11 never been tested, which relies on repeated opening and
12 closing under water, steam and two-phase low conditions
13 of either the PORV, which is, remarkably, not safety
14 grade, or the pressurizer safety valves which, although
15 they are safety grade, are not qualified to perform this
16 function and have never been tested and proven to do
17 so.

18 UCS objected to the Appeal Board, and our case
19 was strengthened considerably when just a few weeks ago
20 the results of the first tests of feed and bleed at the
21 SEMISCALE facility were belatedly released -- two tests,
22 one simulating high head HPI pump configuration, like
23 TMI-2. In each case, stable feed and bleed was not
24 established and in each case the test had to be
25 terminated to prevent destroying the core of the test

1 facility.

2 Last Friday, November 5, the Appeal Board
3 issued an order addressing only this issue and stating
4 its preliminary views and concerns that feed and bleed
5 has not been demonstrated to be viable, and that the
6 SEMISCALE tests further undermine the state of the
7 record. In addition, they found that the so-called
8 boiler condensor mode has not been shown to be viable.

9 In short, there is no reliable means at TMI-1
10 to remove decay heat and keep the core cooled after an
11 accident. On the basis of the current record, one
12 cannot conclude that TMI-1 is safe enough to operate.

13 Mr. Clark from GPU asks you, in the face of
14 these test results where the core was essentially
15 proceeding toward meltdown, to rely on computer models,
16 the B&W computer model that cannot even predict with any
17 certainty the occurrence or behavior of the steam void
18 of the primary system. It cannot predict many other
19 aspects of plant behavior.

20 There are many questions about whether
21 installation of high point vents and dedication of
22 operator to control emergency feedwater, as the Appeal
23 Board has suggested, will fully resolve this issue. We
24 need to look at the design of the high point vents, the
25 procedures for the operators, the amounts of

1 non-condensable gas or steam that can be vented, and a
2 number of other issues, to be able to determine even
3 whether installation of the high point vents will cure
4 this problem.

5 The Commission may not allow operation of
6 TMI-1 by making the Licensing Board decision immediately
7 effective when the Appeal Board has already indicated
8 that it is wrong on a central safety issue, and we are
9 confident that this is only the first of a series of
10 issues for which that will be the case.

11 I would now like to briefly address the
12 question raised about the integrity and competence of
13 GPU, particularly the second question in which the
14 Commission has expressed particular interest, and that
15 is what light does cheating shed on the management
16 competence, attitude and integrity of GPU Nuclear.

17 As the Commission may be aware, UCS was not
18 directly involved in the cheating hearings, but the
19 questions of GPU's competence and integrity are strongly
20 related to the safety issues which we did pursue
21 throughout this case.

22 In a number of instances, UCS urged changes to
23 the design of TMI-1 to make the safety systems and their
24 instrumentation more reliable. A common thread runs
25 through the Licensing Board's decision. Design changes

1 are not necessary, says the Licensing Board, because we
2 can rely on operators who will now, in the wake of the
3 TMI accident, be properly trained and highly competent
4 and they will be able to diagnose and mitigate
5 accidents, even unforeseen accidents, and even in the
6 absence of highly reliable instrumentation and
7 equipment.

8 In many cases, the Board made this explicit.
9 Even if one looks only to the Licensing Board's
10 characterization of the evidence and not to the Special
11 Master, whose characterization I nonetheless believe is
12 on its face much more persuasive, but simply looking at
13 what the Licensing Board found, this is the picture.

14 O and W, a shift supervisor characterized by
15 GPU as the cream of the crop, they cheated repeatedly
16 and extensively. G and H control room operators cheated
17 on company administered weekly quizzes required as a
18 result of the TMI accident. GPU continues to maintain,
19 despite clear evidence to the contrary, that G and H did
20 not cheat. GG, a control shift foreman, cheated on a
21 weekly quiz. MM, a shift technical advisor, did not
22 himself cooperate, in the words of the Licensing Board,
23 but failed to provide a convincing explanation for the
24 similarity in answers provided by him, GG and W.

25 Mr. Shipman, TMI-1 operating engineer and

1 principal assistant to Mr. Ross, whom you saw today, was
2 approached during the NRC exams in April '81 and asked a
3 question related to the exam. He spontaneously provided
4 the answer. After the cheating investigation began,
5 when he was questioned by Mr. Hukill, he reported the
6 incident but refuses until today to name the person who
7 asked him the question, to either his employer, NRC
8 investigators or Judge Milholland. The Licensing Board
9 concludes that Mr. Shipman is probably lying when he
10 says he cannot remember his questioner.

11 Mr. Husted is a licensed instructor for the
12 TMI operators. He refused to cooperate with the NRC
13 investigators and his testimony before Judge Milholland
14 was incredible, in other words, untruthful. His ability
15 and even his willingness to impart a sense of
16 seriousness and responsibility to the TMI operators is
17 highly questionable.

18 Quoting from the Licensing Board, You were a
19 control room shift foreman. You lied to Judge
20 Milholland. VV was supervisor of operations at TMI-2.
21 Then he was assigned to the investigation of the TMI-2
22 accident and he is now liaison with outside
23 organizations in research and development. In July '79,
24 VV submitted work written by a subordinate in
25 fulfillment of VV's requirements for an operator's

1 license. VV does not regard this as cheating.

2 Mr. Arnold, the President of GPU Nuclear, also
3 does not regard this as cheating, nor does Gary Miller.
4 Gary Miller was TMI station manager and is now GPU
5 Nuclear Startup and Test Director, or was as of the time
6 the record was closed. He knowingly, deliberately and
7 falsely certified in the NRC that VV had fulfilled the
8 requirements for renewal of his operating license.

9 John Herbine, at the time Vice President and
10 subsequently Vice President for Nuclear Assurance and
11 still within the management of the company, knew of and
12 assented to Miller's false certification of VV to the
13 NRC.

14 The Licensee took the position during the
15 reopened proceeding that it cannot be faulted for the
16 cheating episodes because it never tried to establish
17 procedures to prevent cheating. During the reopened
18 proceeding, Licensee presented Mr. John Wilson as an
19 impartial investigator. Mr. Wilson presented a great
20 deal of information which tended to show the absence of
21 cheating. He presented no information to show the
22 presence of cheating. He simply accepted the oral
23 denials of the suspected operators and the operators
24 were later found, even by the ASLB, to have cheated.

25 The Licensee was "uncritical in its acceptance

1 of Mr. Wilson's work when there were so many indications
2 of its inadequacy." I think we need harbor few
3 illusions that if this so-called investigation had shown
4 cheating, Licensee would have been less uncritical in
5 its acceptance.

6 The Licensee was culpably negligent in failing
7 to instill in its operations staff a sense of respect
8 for the training and testing program, the qualification
9 of their reactor operators. In the wake of TMI-2 and
10 the intense focus on the importance of operator
11 training, this culpable negligence is inexcusable. If
12 the accident and its aftermath has not significantly
13 attracted the attention of GPU to the training of its
14 staff, it is inconceivable to imagine what could.

15 Seen in the aggregate, this record portrays an
16 operation staff and management which is deeply
17 compromised, which is in fact riddled through with
18 people of dubious integrity. These people formed GPU.
19 The organization is, after all, only a composite of its
20 employees and GPU allowed many of them to assume
21 positions where they are responsible for the health and
22 safety of a great many members of the public. This is a
23 reflection on upper level management's competence and on
24 its integrity.

25 This Licensee lacks the technical and

1 character competence to safely operate TMI. You cannot
2 judge GPU by what it says to you today, by the soothing
3 assurances of corporate or individual
4 non-responsibility. You must judge this company by its
5 actions.

6 As you will have noted, the cheating, lying
7 and evasion was not limited to lower level employees.
8 Many were supervisors, management and their training
9 instructors. Yet the only persons disciplined in any
10 serious way were the two operators who admitted to
11 cheating. Those who obviously cheated and continued to
12 deny it, G and H, VV, those who lied to Judge Milholland
13 and/or to NRC, Mr. Shipman, Mr. Husted, and those who
14 knowingly and deliberately submitted false information
15 to the NRC -- Mr. Miller, Mr. Herbine -- are all still a
16 part of GPU.

17 The Licensing Board evaded the remarkable
18 scope of this evidence by drawing a spurious distinction
19 between competence and integrity. It said, in effect,
20 they may have cheated and lied on occasion, but they are
21 not incompetent. There are at least two problems with
22 this. First, the Commission cannot afford to make that
23 distinction.

24 Safety of the public depends too greatly on
25 self-policing by licensees who must tell the Commission

1 honestly and timely about potential safety problems, who
2 must characterize them accurately, who must shut the
3 plant down when safety demands it, who must respond to
4 the many NRC bulletins and circulars, who must train
5 operators and certify them for NRC tests, who must do
6 the myriad of things required to protect health and
7 safety for which the NRC is able to audit only a tiny
8 fraction.

9 This demands the highest level of integrity.
10 This Commission must be able to believe implicitly in
11 the word of its licensees. GPU has not demonstrated
12 that it is worthy of this trust.

13 Second, and an extremely disturbing aspect of
14 this case, is that it came out that both the Licensee's
15 exams and the NRC exams tested overwhelming rote
16 memorization. The Licensee's training program, which
17 was required, after all, by the Commission's TMI order,
18 involved cramming the operators with rote material,
19 asking them the same questions week after week in makeup
20 exams. If they failed, they got crammed some more and
21 asked the same question again.

22 The NRC examinations also stressed the ability
23 to spew back memorized material, did not test the
24 operator's ability to solve a structure problem, much
25 less an unforeseen accident. As Judge Milholland

1 stated, and I believe that the record supports him on
2 this conclusion, the examination may not in fact measure
3 their ability to operate the plant safely.

4 Even as to the memorized material, when asked
5 on the stand to describe the necessary conditions of
6 terminating ECCS, the TMI operator could not give them.
7 On this record, GPU has neither the competence nor the
8 integrity to safely operate this reactor.

9 Before leaving this issue, I want to touch on
10 the law suit which is now being tried in the Federal
11 District Court in New York City alluded to by
12 Commissioner Ahearne.

13 CHAIRMAN PALLADINO: Ms. Weiss, how much more
14 do you have?

15 MS. WEISS: I would say I have about five more
16 minutes, Mr. Chairman.

17 CHAIRMAN PALLADINO: You are about six minutes
18 over. Could you try to summarize it?

19 MS. WEISS: I would ask your indulgence if I
20 go over, considering the eight weeks that we spent in
21 hearing and the many, many months of full-time work.

22 CHAIRMAN PALLADINO: All I am asking you is
23 would you try to summarize it as promptly as you can.

24 MS. WEISS: Yes, Mr. Chairman.

25 GPU is suing Babcock and Wilcox for several

1 million dollars -- billion, excuse me, billion and
2 change -- accusing B&W of responsibility for the TMI
3 accident. They are telling the court a far different
4 story than they told NRC. Apparently, where money is
5 involved, the picture of solidarity presented to the NRC
6 quickly shatters.

7 The New York Times of November 2 reports that
8 B&W, in its defense, accuses GPU of a pervasive pattern
9 of appalling indifference toward safety, of falsifying
10 reports about steam leakage from valves because it
11 feared losing money if the plant were shut down. This
12 was never hinted to the NRC.

13 The safety and security of the neighbors of
14 TMI was surely at least as important as the money
15 dispute between GPU and B&W. I ask that you, the
16 Commissioners, direct B&W to appear before you with
17 public participants to present all of the evidence they
18 have to support the claims which they are making in the
19 Federal District Court. I think it would be a breach of
20 public trust to do less.

21 I wish to close by touching on several
22 technical issues. The Chairman reminds me that my time
23 is up. To go to my last thought, it is now 3-1/2 years
24 since that accident, three years since NRC spelled out
25 just the short-term changes needed for TMI. Those were

1 the safety improvements that were supposed to be
2 completed no later than January 1981.

3 Many of the most important are still not
4 done. The deadlines have simply been extended and
5 extended in an exercise of infinite flexibility.
6 Emergency feedwater is not safety grade. There are no
7 high point vents. There are no anticipated transient
8 operator guidelines. These were supposed to be required
9 to train the operators to understand and cope with
10 future events like TMI.

11 There is no core water level instrumentation.
12 There are no safety grade in-core thermocouples. In
13 addition to these, the program has not even been
14 initiated to identify and address adverse systems
15 interactions. You simply added another to the list of
16 unresolved safety problems.

17 Hydrogen control, which was non-existent, has
18 been upgrade to merely inadequate, and TMI-1 now has
19 essentially the same system that was grossly inadequate
20 during the TMI-2 accident.

21 Vital safety equipment needed to cool this
22 plant down to mitigate an accident is not
23 environmentally qualified, so we should not pretend to
24 the public that even the safety issues directly related
25 to the accident have all been resolved. They have not

1 been.

2 There is not reasonable assurance that TMI can
3 be operated without undue risk to its neighbors. We ask
4 you not to make the Licensing Board decision immediately
5 effective.

6 CHAIRMAN PALLADINO: Thank you, Miss Weiss.

7 (Applause.)

8 CHAIRMAN PALLADINO: I wonder if I could ask
9 you one question. I am not sure I understood your view
10 with regard to high point vents in the hot legs plus the
11 dedicated manual operating of the valves, whether or not
12 you thought that was a workable scheme.

13 MS. WEISS: I think our answer to that is we
14 do not know yet. We got the Appeal Board order on
15 Friday. We think there are lots of things we need to go
16 back and look at the record for, and some information
17 that is not on the record with respect to the proposed
18 design for the vents. And, if they could, it
19 accomplishes the function. But we have not made a
20 decision yet.

21 CHAIRMAN PALLADINO: Are there other
22 questions?

23 COMMISSIONER AHEARNE: I have two questions,
24 one to follow up on the Chairman's question.

25 I gather that when you said you thought you

1 were glad the Appeal Board agreed with you on the feed
2 and bleed issue, that was speaking strictly to the
3 question of whether the Licensing Board was correct and
4 there was an adequate system.

5 MS. WEISS: Yes.

6 COMMISSIONER AHEARNE: So at some point -- I
7 think the Appeal Board said November 15 was the time
8 that one had to respond to their proposal.

9 MS. WEISS: Yes. We asked them for an
10 extension. We told them we had to be here with you
11 today and that took up the two days since the order. We
12 aske them to give us till the 22nd of November, but we
13 intend to address that question on that.

14 COMMISSIONER AHEARNE: In your opening
15 remarks, Miss Weiss, you talked about the request of the
16 Commission to wait until the Appeal Board addressed the
17 issues. The Appeal Board has addressed at least one set
18 of issues, namely the emergency planning. Shall I then
19 conclude that you believe that that addressal was
20 inadequate?

21 MS. WEISS: We have not been involved in the
22 emergency planning question at all and I really cannot
23 express any opinion on the way in which the Appeal Board
24 resolved those.

25 COMMISSIONER AHEARNE: All right.

1 The final question I had, and I was trying to
2 take notes so it may well be inaccurate, I thought that
3 you said -- I thought you characterized the Licensing
4 Board position that the operating personnel at TMI may
5 have cheated occasionally but they are competent.

6 MS. WEISS: Nothing shows that they are
7 incompetent, yes. I characterized the Licensing Board's
8 decision that way.

9 COMMISSIONER AHEARNE: Well, I question
10 whether that is a really completely accurate
11 characterization. In fact, I thought the Licensing
12 Board had gone out of its way to point out that they
13 felt that the large bulk of operators were honest, that
14 they were at this stage -- had been forced to go through
15 several sets of reexaminations, and their honest
16 challenged without any evidence of any kind, or even any
17 indication that the bulk of them had done anything
18 dishonest.

19 MS. WEISS: I do not know what the numbers
20 are, whether it is 25 that did not cheat and ten that
21 cheated, or 35 that did not cheat and 12 that cheated.

22 COMMISSIONER AHEARNE: Well, Miss Weiss, I was
23 asking about the characterization of the Licensing Board
24 position.

25 MS. WEISS: There are two paragraphs in the

1 Licensing Board decision responding to UCS' position
2 that in view of these findings with respect not only to
3 the cheating but the content of both the licensing exams
4 and the NRC exams that those meant that the Licensing
5 Board ought to go back and reexamine some specific
6 safety issues which it resolved by relying very heavily
7 on new operator training and highly competent
8 operators.

9 Its response to us was almost as short, as I
10 have characterized it, but they may have cheated, they
11 may have lied, but they are not necessarily
12 incompetent.

13 COMMISSIONER AHEARNE: Then you did not find
14 the same points that I found in the Licensing Board,
15 saying that in bulk they thought the operators were
16 honest.

17 MS. WEISS: What I was trying to say before is
18 that I do not understand what one makes of the statement
19 that ten people cheated and 25 people did not. The
20 question is (a) can you have confidence in an
21 organization and (b) are there sufficient operators to
22 operate the plant, and those numbers do not mean
23 anything to me except may more people did not cheat than
24 did. I would certainly hope so.

25 CHAIRMAN PALLADINO: Do you feel that the

1 training programs that have been instituted and the
2 changes made by the Licensee are such as to assure you
3 of a future characterization of the operators as
4 competent?

5 MS. WEISS: Are you talking about the
6 so-called quality assurance? I do not think, Mr.
7 Chairman, that the problems that GPU has are problems of
8 quality assurance. I do not think they are problems of
9 procedure, primarily, and I do not think they can be
10 cured by procedure primarily. I think they are far
11 deeper problems.

12 You can create a procedure to have one person
13 check on whether another person has cheated on an exam.
14 I do not know how you can create a set of procedures to
15 check that all of the many things which the Licensees
16 must say in their interactions with you and the public
17 are absolutely truthful and that they are absolutely
18 forthcoming. You cannot design procedures to accomplish
19 that.

20 You must have implicit faith in the integrity
21 of the people you are dealing with.

22 CHAIRMAN PALLADINO: Do you feel the training
23 program will, to an extent, improve the integrity of the
24 operation?

25 MS. WEISS: I have not seen any evidence of

1 any change in the content of the training program since
2 the Special Master and the Licensing Board's decision.
3 The only evidence that I have seen is that there will be
4 procedures to protect the examination against cheating,
5 and that I am suggesting to you that that is necessary,
6 but a far-from-sufficient condition for finding that
7 this Licensee is suitable to operate a nuclear plant.

8 CHAIRMAN PALLADINO: So I gather you do not
9 find much comfort from the efforts to improve the
10 training.

11 MS. WEISS: I do not see -- no, I do not see
12 that there have been any efforts to improve the state of
13 affairs as described by the Special Master that they are
14 dealing with the situation. But the NRC exams, which
15 are, after all, represented to be the independent check,
16 and the licensing exams, test for and encourage rote
17 memorization.

18 Now you can have some confidence as a result
19 of that kind of program that somebody will for a short
20 period of time retain his knowledge of the material
21 memorized. You can have no confidence that when the
22 plant starts to become involved in an accident situation
23 he will be able to diagnose or to bring you out of it
24 safely.

25 CHAIRMAN PALLADINO: Are there questions by

1 other Commissioners?

2 COMMISSIONER GILINSKY: Yes. I wonder if you
3 can tell us what you think are the several most
4 important changes, hardware changes, that would need to
5 be made before the plant would operate.

6 MS. WEISS: Well, in answer to that I guess it
7 is easiest for me to give you the obvious ones, the ones
8 for which we know both the problem and the solution --
9 not just know the problem but we know the solution as
10 well.

11 The PORV ought to be safety grade. The
12 pressurizer heaters ought to be safety grade. It ought
13 not to be possible to connect non-safety grade
14 pressurizer heaters, emergency power supplies, and
15 thereby jeopardize all of the plant safety equipment.
16 There ought to be a demonstration that the equipment
17 important to safety is environmentally qualified, can
18 survive the accident in which it must operate.

19 We also believe that there should be a
20 reliable means of forcing cooling through the primary
21 system for decay heat removal. We believe that the
22 reactor cooling pump should be safety grade.

23 You can hear from Mr. Pollard on this if you
24 want. He reminds me to mention to you the many very
25 serious questions about the B&W computer code and it is

1 our belief that you must have evidence that allow you to
2 conclude that that code accurately predicts plant
3 behavior during and after an accident before you can
4 allow it to restart, because otherwise you have no
5 assurance, among other things, that Appendix K is met
6 and that loss of coolant accidents can be mitigated.

7 And you demonstrated the fact that you are
8 aware of some of the issues that have been raised about
9 the B&W model. They are fundamental, far-reaching and
10 it seems to me in the face of those concerns it is
11 really not possible, other than operating on blind
12 faith, to conclude that Appendix K is met.

13 MR. POLLARD: I hate in an oral argument to
14 have my attorney sum up the most important technical
15 arguments. I think if we needed to sum them up, what I
16 would say is your own lessons learned, short-term and
17 long-term, why a plant that has been shut down for 3-1/2
18 years has not yet completed those modifications which
19 investigation of the TMI-2 accident said were necessary
20 is something I cannot comprehend -- most of the
21 contentions raised by UCS were simply that the
22 recommendation from the lessons-learned task force ought
23 to be implemented before restart.

24 The second category of things, I think, that
25 are most important to be done is to say for Three Mile

1 Island Unit 1, for each applicable unresolved safety
2 issue what is the solution or what is the feature in
3 TMI-1 that compensates for lack of resolution of that
4 unresolved safety issue. I think that is how I would
5 prefer to sum up what is most important.

6 CHAIRMAN PALLADINO: Thank you, Mr. Pollard.

7 Other questions?

8 We thank you both for appearing before us
9 today.

10 We will now excuse you and ask the
11 representatives of TMI Alert to join us. Since we are
12 beginning to run out of time and we have been generous
13 with allowing overages, we would appreciate any effort
14 that you could make to stay within the ten minutes.
15 Would you proceed, please?

16 STATEMENT OF LOUISE BRADFORD ON BEHALF OF
17 TMI ALERT

18 MS. BRADFORD: Commissioners, my name is
19 Louise Bradford. I represent Three Mile Island Alert.
20 To my right is Joanne Doroshow, who has also represented
21 Three Mile Island Alert in this proceeding.

22 You have asked two questions which have
23 particular reference to the cheating proceedings to
24 which we were a very active party.

25 The second question which addresses the

1 problems of integrity and its reference to management's
2 competence. I think, first of all, to understand that
3 question we have to have a definition of "management"
4 and, according to GPU's own definition of "management",
5 this includes all exempt or non-union personnel. That
6 includes shift foremen and all those above that
7 position.

8 Using that definition, Judge Milholland in his
9 report found the following members of GPU management to
10 be guilt of cheating or other wrongdoing or to have
11 given non-credible testimony during the hearings
12 themselves. Mr. Arnold, who is Vice President for GPU
13 Nuclear, gave non-credible testimony. John Herbine,
14 former Vice President of Nuclear Assurance for GPU
15 Nuclear, was guilty of wrongdoing Gary Miller gave
16 non-credible testimony and was guilty of wrongdoing.

17 Operator W cheated during the 1981 NRC exam.
18 Michael Ross, Manager of Operations Unit 1, was guilty
19 of wrongdoing and gave non-credible testimony at the
20 hearing. Mr. Shipman, Senior Operating Engineer of Unit
21 1, gave non-credible testimony and was involved in a
22 cheating incident.

23 Mr. Husted, training instructor, gave
24 non-credible testimony and was also involved in a
25 cheating incident. Individual O, shift supervisor, gave

1 non-credible testimony and was involved in a cheating
2 incident. Individual W was involved in a cheating
3 incident. Individual P, a shift supervisor Unit 1, gave
4 non-credible testimony.

5 Operator U, shift foreman, gave non-credible
6 testimony and was possibly involved in cheating
7 incidents. Operator GG, shift foreman, gave
8 non-credible testimony and was involved a cheating
9 incident. Operator G -- excuse me, those last two
10 operators do not fit within GPU's definition of
11 management.

12 As you can see from this list, the management
13 of GPU in its operations department was heavily involved
14 in cheating or wrongdoing. The 1979 cheating episode
15 which involved individual VV and O is probably the
16 clearest indication of this company's lack of integrity
17 and their willingness to lie to the NRC.

18 Your decision to refer this incident to the
19 Office of Investigations for further investigation
20 removes further consideration of this episode from the
21 restart decision you will be issuing on December 10. We
22 feel it very important that the Commission have the
23 results of that investigation before they issue any
24 restart orders.

25 To this day, GPU has failed to admit that

1 operator VV cheated during that episode. In response to
2 some of Mr. Arnold's comments here today, I would just
3 like to say Mr. Arnold has insisted that he had no
4 knowledge that Mr. VV had cheated on a requalification
5 exam. The findings of the Licensing Board and Judge
6 Milholland would contradict that statement and the
7 evidence points to the fact that it was clearly on a
8 makeup exam, requalification exam, that VV cheated.

9 Mr. Arnold further continues to deny that he
10 had knowledge that there was wrongdoing involved and it
11 was on that issue particularly that I find it difficult
12 to understand. During the hearing Mr. Arnold testified
13 that discipline was taken with regards to Mr. VV, that
14 indeed he was demoted, although other evidence during
15 the hearing contradicted that statement.

16 I find it very difficult to understand how one
17 could demote a senior management person and a person, an
18 operator, who had been employed by the company for at
19 least nine or ten years, and to do this against the
20 advice of other management personnel, namely Mr. Miller
21 and Mr. Herbine. To take this serious step without
22 first investigating fully the events that surrounded
23 that episode would seem unlikely and certainly not good
24 management policy.

25 Not only has GPU to this day failed to

1 recognize that individual VV cheated, but all others,
2 except O & W, the operators who admitted to cheating.
3 The Licensing Board has relied heavily on new procedures
4 which would be instituted by the company to correct for
5 the many problems that were brought out by the reopened
6 hearing.

7 It is difficult for me to understand how these
8 procedures would work when members of senior management
9 cannot even recognize wrongdoing when it occurs, when it
10 is pointed out to them. How can they possibly adhere to
11 their procedures? The problem is that we have here a
12 company that is not able to police themselves and not
13 able to recognize wrongdoing in their ranks.

14 All of these problems cannot be corrected by
15 written procedures. In fact, it does not take a written
16 procedure for a management person to understand that
17 you do not recertify to the NRC an operator who has
18 cheated.

19 This raises the issue of integrity of
20 management which the Licensing Board in its decision
21 avoided addressing. They have looked only at -- they
22 have separated the issue of company versus NRC exams
23 and, for some reason, the Licensing Board has decided
24 that a lesser sanction or a lesser punishment should be
25 meted out for cheating on company exams. It is

1 difficult to understand. The problem of integrity
2 remains. It is dishonest to cheat on an exam, whether
3 it be an NRC exam or a company exam.

4 Furthermore, the company exam is the only
5 method that tests the day-to-day changes in the plant
6 and the technology. Without that check, the public can
7 have no confidence that operators are learning these new
8 developments. Therefore, the problem of integrity and
9 the problem of cheating on company and NRC-administered
10 exams is exactly the same.

11 The Licensing Board failed to address that
12 question. They failed to address the question of
13 integrity and, as has been pointed out repeatedly today,
14 the integrity of operators is vital to the safety of the
15 public.

16 CHAIRMAN PALLADINO: Thank you, Miss
17 Bradford.

18 I wonder if I could ask you about a
19 fundamental question. You touched on the dilemma face.
20 We have Judge Milholland's conclusion and we have the
21 Licensing Board's conclusion based on essentially the
22 same evidence, and I was wondering if you could give us
23 some general insight as to why you chose one or the
24 other, because in the end we are going to have to face
25 which way we lean with regard to these judgments.

1 Could you give me some insight as to why you
2 picked one over the other?

3 MS. BRADFORD: I think definitely the evidence
4 would support Judge Milholland's conclusions, in
5 particular that the integrity of the operations
6 department has been found inadequate. I certainly think
7 that the aggregate of the evidence would support that
8 conclusion. The Licensing Board chose to overturn that
9 conclusion.

10 CHAIRMAN PALLADINO: So you are saying that
11 basically you drew the same conclusions from the
12 evidence that Judge Milholland --

13 MS. BRADFORD: Yes. Also, I would say that
14 Judge Milholland was in a far better position. He
15 received the evidence. He was in the position to
16 observe the demeanor of the witnesses while they were
17 giving that evidence. It was a position that the
18 Licensing Board did not enjoy. They merely read the
19 printed word.

20 Judge Milholland himself, many of his
21 credibility decisions, turned on the demeanor
22 observations that he made during the hearings
23 themselves.

24 CHAIRMAN PALLADINO: And I gather that you
25 feel attention to the demeanor is a significant item.

1 MS. BRADFORD: Yes, it is.

2 CHAIRMAN PALLADINO: Are there other
3 questions?

4 COMMISSIONER ASSELSTINE: I just have one.
5 Miss Bradford, I just have one question going to what
6 changes you believe would be sufficient going to the
7 management integrity and competence of this utility that
8 would lead you, in your judgment, to believe that the
9 plant could be restarted.

10 MS. BRADFORD: I am afraid in my opinion that
11 there are no changes that would be sufficient to resolve
12 the problems of integrity, no amount of procedural
13 changes that would resolve that problem.

14 CHAIRMAN PALLADINO: Do you believe that you
15 never can change the integrity or attitude of
16 individuals or organizations?

17 MS. BRADFORD: I think the amount of attention
18 that this company has received in the last 3-1/2 years,
19 one would have expected, given the problems that we saw
20 at the time of the accident, which points up a very
21 important matter. At the time of the accident, the
22 information flow also concerned a problem of integrity
23 and it points to the safety issues that have been
24 discussed here today.

25 One can have the most sophisticated emergency

1 plan. However, if one is not alerted that an emergency
2 is taking place, that plan is of absolutely no use.

3 CHAIRMAN PALLADINO: That was not the question
4 I asked. You implied that you could never change the
5 attitudes of people or organizations. Is that what you
6 meant?

7 MS. BRADFORD: I think we have seen 3-1/2
8 years pass and the same integrity problem is still
9 there.

10 CHAIRMAN PALLADINO: I was not asking whether
11 they did it. I was asking do you think it could
12 happen.

13 MS. BRADFORD: No, I do not.

14 CHAIRMAN PALLADINO: You do not give much
15 promise to the whole concept of education because the
16 whole purpose of education is to change knowledge and
17 attitudes. I am not saying that it has been done or has
18 not been done here, but I am curious that you say it
19 cannot be done.

20 Are there any other questions?

21 COMMISSIONER AHEARNE: I just wondered whether
22 Mrs. Doroshow wanted to add anything.

23 MS. DOROSHOW: Maybe just a couple of points,
24 one regarding Judge Milholland. If any of you had
25 actually sat in on any of the hearings, you would have

1 observed that Judge Milholland was a highly reputable,
2 ethical, concerned, thorough investigator himself. He
3 was extraordinarily well prepared every day. He took a
4 very active role in these proceedings and his report
5 reflects that.

6 It is much more detailed than the Licensing
7 Board's, and it is very well thought out, and we
8 basically agree with most of his conclusions. The
9 Licensing Board indeed selected Judge Milholland
10 because, as they say in their decision, their informed
11 confidence in his ability and his fairness, and I think
12 that does come through.

13 Another point, I think Mr. Blake mentioned the
14 fact earlier that Judge Milholland concluded that there
15 is no evidence that this management condoned or
16 encouraged cheating. Well, Judge Milholland found that
17 with regard to upper management. He certainly did not
18 find that with regard to management individuals, as
19 described by Ms. Bradford, who actually did engage in
20 cheating and wrongdoing and rendering non-credible
21 testimony.

22 And, even so, Judge Milholland concluded that
23 as far as the cheating discovered on NRC exams that
24 management did create the attitude there to cause that
25 cheating to occur, and with regard to the cheating that

1 occurred on company exams, he did conclude that they
2 actually created the conditions which caused that
3 cheating to occur.

4 Regarding Mr. Ross, I think you will find that
5 Judge Milholland's conclusions and findings regarding
6 him pend a great deal on witness demeanor which only he
7 did observe. The Licensing Board did not observe any
8 witness demeanor. They did not attend any of the
9 hearings, and even the Board, if you read the decision,
10 is confused as to some of his testimony. So even the
11 Board does not totally exonerate him of all ethical
12 problems.

13 It is very clear that we could not in the ten
14 minutes that we have get into so many issues which were
15 litigated at these hearings and, you know, if you
16 continue to take the position where you will not review
17 the merits of this case, then at least we urge you to
18 look at our Appeal Board brief and investigate somewhat
19 more so than we could possibly explain to you today the
20 evidence which was revealed during these hearings, which
21 we think is very serious.

22 Thank you.

23 CHAIRMAN PALLADINO: Thank you. Any other
24 questions? All right. Thank you very much, both of
25 you.

1 I wonder if we have the Aamodts take the table
2 at this time.

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1 CHAIRMAN PALLADINO: You may proceed.

2 STATEMENT OF NORMAN O. AAMODT

3 MR. AAMODT: Mr. Chairman and Commissioners, I
4 am Norman Aamodt. This is my wife, Marjorie. Together
5 we comprise the functional part of the Aamodt family in
6 this proceeding.

7 We would urge the Commission to adopt the
8 findings of the Special Master, Judge Gary Milholland,
9 rather than those of the Licensing Board regarding the
10 cheating incidents at TMI. I would like to point out
11 that Judge Milholland's findings closely parallel those
12 that we submitted prior to his.

13 I would also like to point out that Judge
14 Milholland's findings with regard to the training and
15 testing program closely parallel the findings that my
16 wife presented at the end of the main hearing which the
17 Board denied.

18 The fact of the matter is with regard to
19 cheating that cheating has been commonplace at TMI. I
20 think we hold a somewhat different view than those who
21 have preceded us. A TMI operator with nothing to gain
22 and everything to lose so testified. This same
23 operator, designated CO, also testified that cheating
24 was accepted at TMI.

25 Metropolitan Edison counsel now admits in

1 findings filed after the close of the hearing that the
2 importantly weekly tests following each 40-hour training
3 module were administered with books open and operators
4 comparing answers. The individuals who cheated
5 extensively on the NRC exam in April 1981 did not try to
6 conceal their cheating. The operator who supplied the
7 answers maintained to the end that his behavior was not
8 cheating.

9 I think it would be in the best interests of
10 justice if the Commission were to look carefully at the
11 definition of the word "cheating" as it applies at TMI.
12 Other operators did not consider the matter serious
13 enough to warrant termination. All this is on the
14 record.

15 Metropolitan Edison's counsel defended the
16 cheating of two other operators, designated G and H, and
17 continued to do so throughout the hearing, although the
18 Board described their cheating as being so obvious that
19 the Board could not ignore it. The President of GPU
20 Nuclear, Robert Arnold, did not try to discover why O
21 and W cheated, you may recall. We can only conclude, as
22 did Judge Milholland, that Mr. Arnold knew why.

23 CHAIRMAN PALLADINO: I am sorry --

24 MR. AAMODT: That Mr. Arnold knew why, if
25 indeed it was construed to be cheating. Mr. Arnold did

1 claim that the operators cheated because they were not
2 told that cheating was not allowed. That is on the
3 record. Such warnings should hardly be necessary for
4 schoolchildren, let alone for operators who should have
5 understood their responsibility.

6 Dr. Robert Long, Director of Training for GPU
7 Nuclear, concealed from the Board in the main hearing
8 and from Judge Milholland in the reopened hearing the
9 compromise administration of tests in TMI's training
10 department. He lied. He said that they were
11 closed-book tests when they were not -- twice.

12 Samuel Newton, supervisor of operator
13 training, deliberately misrepresented the operators'
14 grades during the main hearing in a dispute with us over
15 conflicting reports. He also reported the results of
16 the follow-up TMI-2 testing without informing the Board
17 about the compromise conditions under which the training
18 and tests of this Commission-ordered subject were
19 administered.

20 Cheating was clearly part of the fabric of
21 training and testing. At TMI during the April 1981
22 exams, an answer to a question was even solicited over
23 the loudspeaker system. Can you imagine? It was
24 solicited over a loudspeaker system where everyone could
25 hear it, and did anyone turn him in? No one did. That

1 fact was never questioned in the hearing -- denied in
2 the hearing.

3 Cheating was clearly accepted at TMI. It was
4 accepted by management. The individuals, operators,
5 involved should not be held responsible for individual
6 acts committed in an environment created by their
7 management. They did what they were instructed to do.
8 Management itself must bear full responsibility. That
9 says that we think you are quite improper in subjecting
10 the individual operators for punishment for doing what
11 the company encouraged them to do.

12 We think that is grossly unfair. Training and
13 management not only lacked in integrity but has failed
14 in the more than three years since the accident to put
15 an adequate training program into place -- three years
16 and they have not yet constructed a suitable training
17 program. We would have expected a model program long
18 ago.

19 The Commission specified the level to which
20 training must be augmented following the accident and
21 the number of operators who were to be prepared with
22 this training to man the shifts. The August 9, 1979
23 order referenced at page ten, a meeting between the NRC
24 Staff and Metropolitan Edison management, where it was
25 specifically agreed that training in fluid flow, heat

1 transfer and thermodynamics should be at college level,
2 that the qualifications of the instructors of these
3 courses should be addressed, and that forty operators
4 should be adequately trained.

5 The Board, over three years later, stated that
6 they are satisfied with these courses, taught below
7 college level, without the requisite mathematics
8 ordinarily involved. The Board is now recommending that
9 criteria for instructors be established now, three years
10 later, and dissatisfied with an operating complement of
11 perhaps even less than thirty operators and trainees.

12 The Board has informed the Commission that the
13 accelerated training given in the fall of 1979 and the
14 spring of 1980 was responsive to the Commission's order
15 for augmented training. The Board's information is
16 based on Licensee's expert testimony. This testimony
17 was ill-founded in that one-half of the operators failed
18 to test on TMI-2 events following the program.

19 Neither the operators nor the instructors took
20 the TMI training and testing seriously, and there is a
21 lot of evidence to that effect. And the operators' high
22 grades on the weekly tests throughout the program were
23 obtained through a group effort and with open books by
24 what we have now come to call cheating.

25 The Board was also satisfied with simulator

1 training that falls far below the minimum number of
2 hours recommended by experts. Four hours of training in
3 TMI-2 events were added to the 1979-80 schedule of
4 twenty hours on-hand simulator training annually. In
5 addition, gross design differences between the B&W
6 simulator and Unit 1 reduced the effective training time
7 by as much as 35 percent.

8 The Commission had ordered August 9, 1979 that
9 simulator training be adequate to assure that the
10 operators had the ability to handle a variety of
11 emergencies. There is no evidence produced by the Board
12 or any parties that the operators have had such adequate
13 training.

14 To make matters worse, the Board now questions
15 the validity of the NRC examination and licensing
16 process. NRC itself admits that it is presently
17 reviewing its examinations for validity. The Board
18 would have the Commission impose several conditions and
19 allow these conditions to assure the adequacy of
20 training. However, the subjects of these conditions
21 were raised over three years ago -- the adequacy of the
22 instructors and the quality of the training -- and the
23 Licensee failed to meet them.

24 Licensee's Dr. Neef testified that TMI
25 management has not been able to attract qualified

1 instructors to the site. The Board has simply refused
2 to acknowledge management's clear deficiencies and to
3 evaluate TMI management on the basis of how it
4 operates. The Board has relied instead on fancy
5 organizational charts and self-serving opinions of
6 Licensee's consultants and friends, including two
7 members of the NRC Staff who, like the Board, lack
8 management experience or management education.

9 The Board has failed to apply objective
10 criteria to evaluate management. The matter of training
11 of unlicensed personnel reported by the NRC inspection
12 staff as poor was to have been addressed in the restart
13 hearing. However, aside from the training for health
14 physics personnel the matter received no attention. The
15 Board simply concluded that the qualifications of
16 non-licensed personnel met standards established prior
17 to the TMI-2 accident.

18 This entire evaluation by the NRC Staff was
19 simply based on a list of courses submitted by Licensee
20 as descriptive of planned training programs. The NRC,
21 the regulatory agency, still maintains that it does not
22 need to review Licensee's training and testing
23 programs.

24 In the case of licensed operators, the Staff
25 relied totally on the Licensee examinations to decide

1 whether training is adequate. To make matters worse,
2 the Staff was satisfied with Licensee's training even
3 after one-half the senior reactor operator candidates
4 failed the October 1981 NRC licensing exams. It was the
5 Commission that ordered the TMI-2 training and
6 augmentation and training in general and closed book
7 administration of tests. The Licensee did not take you
8 seriously.

9 Any decision on your part to allow this
10 management to restart the plant will weaken your
11 authority and, therefore, your ability to regulate the
12 nuclear industry.

13 Concerning the emergency plan for farmers, we
14 are dissatisfied with the Appeal Board standard that the
15 Commonwealth only need make a reasonable effort to
16 protect the health and safety of farmers. We have
17 labored long to finally achieve the Commonwealth's
18 recognition and the NRC's and the Board's that the
19 farmer cannot be treated as members of the general
20 public, that their particular situation as caretakers of
21 herds of livestock during a radiological emergency poses
22 a unique threat to their own health and safety.

23 We proved that the original plans for farmers
24 were totally unworkable. The Appeals Court agreed --
25 Board agree. The Commonwealth has promised to redo the

1 plans for farmers. However, the judgment of the
2 adequacy of these plans has been removed from public
3 comment except at the discretion of the Commonwealth,
4 and I would like to interject here there have been a lot
5 of promises --

6 CHAIRMAN PALLADINO: What?

7 MR. AAMODT: A lot of promises in this
8 proceeding, and I do not think you have any basis for
9 believing this one any more than any others.

10 The Commonwealth only needs to distribute
11 whatever it is they decide upon to all of the farmers in
12 a ten-mile area surrounding TMI. The Commonwealth has
13 already distributed fact sheets which the seven
14 agricultural witnesses who appeared on our behalf in the
15 hearing -- who appeared in the hearing described as
16 inapplicable, valueless. We have no assurance that the
17 revised plans will be any better.

18 Farming is a major industry in the TMI area.
19 We cannot see how the Commission could agree to start
20 the plant when the lives of these farmers are uniquely
21 jeopardized.

22 I would like to make one final statement that
23 I still have not finished writing because I have not
24 quite finished, but I think maybe between us we can come
25 up with something.

1 CHAIRMAN PALLADINO: We may bring some of
2 these points out by questions.

3 MR. AAMODT: I would make this final
4 statement. We have noted that the NRC Staff has
5 consistently upheld the positions of the Licensee in the
6 areas that we have been involved throughout the
7 proceeding. The NRC Staff found no fault with
8 management either in the development or the
9 implementation of their training program. In the face
10 of all of the testimony, inconsistencies and lies, the
11 NRC Staff found the integrity and competency of GPU
12 Nuclear management to be adequate.

13 Doesn't that trouble you? It troubles me.
14 The Staff found the emergency plan for farmers just
15 fine. Doesn't that trouble you? That troubles me.
16 Since the TMI-2 accident, the performance of both the
17 Licensee and the Commonwealth has been far from
18 responsive to your August 9 order, but the Staff did not
19 notice. Who are they working for?

20 We have spent thousands of dollars out of our
21 own pocket because we happened to get caught up in this,
22 because we were concerned about the particular issues
23 which we have litigated. It all was unnecessary if the
24 NRC Staff had acted in the public interest. You fellows
25 are the boss. The buck stops there.

1 Thank you.

2 CHAIRMAN PALLADINO: Thank you very much.

3 (Applause.)

4 MR. AAMODT: Pardon me. My wife has a couple
5 of comments she would like to make with regard to some
6 of the earlier statements made by GPU.

7 CHAIRMAN PALLADINO: We are considerably
8 over.

9 COMMISSIONER AHEARNE: Let me just ask as a
10 question, Mrs. Aamodt, do you have anything you would
11 like to add?

12 PRESENTATION OF MARJORIE AAMODT

13 MS. AAMODT: I was mystified by Mr. Arnold's
14 reference to structured examinations. I assume he means
15 that the NRC validity studies have been completed, but
16 there has been no evidence of this in the hearing.
17 There was no evidence that the operators who took the
18 October examinations were given this kind of exam.

19 Now Mr. Arnold is saying that we should take
20 our assurance of operators' capabilities on the basis of
21 structuralized examinations, but what evidence do we
22 have that the structuralized exams, number one, are
23 valid and, number two, to what extent have the TMI-1
24 operators been examined on these exempt structuralized
25 examinations.

1 Then I wanted to go to a point that we seem to
2 go back and forth on in this hearing. The original
3 position of the NRC Staff when I came into this hearing
4 was that there should be redundancy in measuring human
5 capabilities, which I fully agreed with and was in my
6 testimony when I was a witness in the training section
7 of this hearing.

8 They advocated independent audits,
9 certifications by the management of the plant, a look at
10 the weekly quizzes, expert review of the training
11 program and so forth. None of those things came through
12 for them. The operators failed the independent audits.
13 The certifications were without basis. They certified
14 operators who failed the audits, who failed the weekly
15 quizzes and so forth.

16 So all that was dropped and the Board finally
17 came to the conclusion in their August 27 decision that
18 we had the NRC examination. Then the reopened
19 proceeding showed that the NRC examination was
20 questionable as far as its validity goes and the Board
21 then said that they now took note of a position that I
22 had taken in the original hearing, that the NRC
23 examination may now lack validity. But they noted that
24 the NRC was studying now the validity of the
25 examination.

1 So the Board then said that we have to
2 apply -- they put as a condition in their July 27
3 decision we have to apply quality assurance techniques,
4 so we now have to have independent audits. We have to
5 look at the criteria for instructors and so forth and so
6 on, and then we hear today Mr. Arnold is saying -- you
7 are asking a question how are you assured of the
8 capabilities of the operators, and then we go right back
9 again and say we have structuralized examinations. We
10 have a single measure. So I am questioning that answer
11 that Mr. Arnold gave you today.

12 The other thing is I am also questioning the
13 credibility of Mr. Ross' testimony today in adopting the
14 staffing criteria of NUREG-0737. This is a minimum of
15 two SROs and two ROs on each shift. Now Mr. Ross I
16 heard testify at the reopened hearing and he said that
17 he wanted, that he needed three SROs as a minimum and
18 four to five ROs on each shift, that he wanted more
19 experience than was an NRC requirement for SROs, that he
20 considered at least three years experience on the TMI
21 plant, not six months, as the NRC requires, to be the
22 kind of experience that he needed to operate the plant
23 safely.

24 Mr. Hukill said they needed at least five
25 shifts. He multiplied this out and you have

1 approximately forty operators, which is the number that
2 the NRC and Metropolitan Edison agreed upon at the time
3 of the August 9 order. We have no evidence in this
4 hearing. None came in. We have no idea as far as this
5 hearing how many operators there are currently
6 available, what their experience is.

7 The Board referred to thirty to forty
8 operators who were not involved in cheating. I have
9 absolutely no idea where that figure came from and I
10 really doubt it very much.

11 I also want to say that I was totally
12 surprised when Mr. Arnold said he did not know he was
13 exempted from the sequestration order that was discussed
14 at length in the hearing and I find that he was
15 attempting to avoid your questioning through answering
16 in that manner.

17 I would also like to remind you of the
18 vigorous opposition of GPU management to the
19 reexamination of operators after the extensive cheating
20 of O and W was discovered and the nature and extent of
21 cheating was still unresolved.

22 CHAIRMAN PALLADINO: Thank you very much, Mrs.
23 Aamodt. I have one question I wanted to ask you.

24 I believe you said that the management told
25 the operators to cheat. Maybe I am putting it rather

1 bluntly. What evidence did you draw on for that?

2 MR. AAMODT: Let me talk just for a moment if
3 I might, because it is something I have wrestled with a
4 great deal. I have a friend who is a corporate attorney
5 who pointed out to me once that the law is not
6 necessarily just; it is just the law. So the use of the
7 law here might not be the most appropriate vehicle for
8 coming to the truth.

9 My gut feeling is that what we stumbled on
10 when O and W's papers were noted to contain a high level
11 of parallelism was an ongoing practice in the industry
12 where licensees prepare their candidates for
13 examinations and the NRC goes along with it.

14 There was one interesting line in Mr. Ward's
15 testimony that was not pursued where he quoted Mr. Mains
16 as saying that he saw O and W and we would loved to have
17 pursued that, but what we suspect, and we have no basis
18 in law and no evidence to support it, but a gut feeling,
19 having sat through all of this, that the candidates
20 acted like they always did, like the Licensee knew they
21 did, like the Licensee encouraged them to act, like the
22 NRC knew they acted, and like, perhaps, most of the
23 industry acts.

24 I have no basis for making that assertion
25 other than my gut feeling.

1 CHAIRMAN PALLADINO: You imply it is wrong to
2 prepare people for examinations. Lawyers do it, doctors
3 do it, engineers do it.

4 MR. AAMODT: I am an engineer and I know that
5 there is nothing wrong with preparing for examinations.
6 There is this: if there is the assertion that a certain
7 arbitrary level of understanding and competency is
8 needed and consistent with that a test procedure is laid
9 out, that that test procedure should not be compromised
10 by coaching.

11 CHAIRMAN PALLADINO: I was just trying to
12 clarify that one point.

13 MR. AAMODT: There is nothing wrong with
14 training. I agree with that.

15 CHAIRMAN PALLADINO: Commissioner Roberts.

16 COMMISSIONER ROBERTS: Would you make a
17 decision that affected public health and safety based on
18 a gut feeling?

19 MR. AAMODT: Yes, sir, I would, in light of
20 the fact that my gut feeling is on the side of safety.
21 The evidence of this proceeding shows -- is that there
22 are many loose ends. There is considerable doubt with
23 regard to the extent of what we call cheating. There is
24 actually considerable doubt with regard to the
25 definition of cheating.

1 Clearly, the operators had different views as
2 to what constituted cheating. Clearly, management had
3 different views. There is much left up in the air, and
4 what I am saying is that we should err on that side
5 always in our judgments which protects the people around
6 the plant.

7 CHAIRMAN PALLADINO: Well, thank you very
8 much. We appreciate your coming.

9 Now we have two individuals who have requested
10 an opportunity to speak and their request came in late.
11 The Commission did agree to allow each of them three
12 minutes. One, Mr. Marvin Lewis and another one, Miss
13 Patricia Smith, who represents Newberry Township.

14 I wonder if Mr. Marvin Lewis would come
15 forward. We will have to hold you to three minutes.

16 STATEMENT OF MARVIN I. LEWIS

17 MR. LEWIS: Hopefully less than that.

18 My name is Marvin Lewis. I have been involved
19 here since the Three Mile Island restart. I only wish a
20 few seconds to answer Commissioner Ahearne's request
21 that we look at "the most critical points". I want to
22 look at something we have not looked at.

23 I want to look at the safety of the
24 Commissioners themselves.

25 CHAIRMAN PALLADINO: The what?

1 MR. LEWIS: The safety of the Commissioners of
2 the NRC themselves. I want you to think. If the
3 unthinkable happens and the Sandia accident happens
4 here, I want you to think about protecting yourselves.
5 I want you to think and have enough guards around you
6 and yours and your dogs and your cars to protect you
7 from the vengeance of these people here who might lose
8 100,000 of their neighbors and friends.

9 That is all I have to say.

10 CHAIRMAN PALLADINO: Any comments or
11 questions?

12 MR. LEWIS: Thank you for your time.

13 CHAIRMAN PALLADINO: Mrs. Patricia Smith of
14 Newberry Township.

15 STATEMENT OF PATRICIA SMITH

16 MS. SMITH: Hello. Thank you very much for
17 hearing me. I did misunderstand. When our attorney,
18 Jordan Cunningham cannot represent Newberry Township, he
19 usually asks me to and we kind of did not connect.

20 Let me briefly introduce my husband,
21 Representative Bruce Smith of the 92nd District. I
22 think I bring you a refreshing view from what you have
23 heard all afternoon.

24 Newberry Township intervned on behalf of
25 evacuation plans. Very briefly, I can tell you what the

1 10,000 people think of it. It will never work.
2 Everybody says they are going to do what they want to
3 do. May I say that I have been in this thing for three
4 years and seven months and I see two familiar faces --
5 Mr. Gilinsky and Mr. Ahearne -- and the other three are
6 new. I sure hope you have read a lot so you know how we
7 feel.

8 My notes, I will just briefly go over them. I
9 will not say everything.

10 I remember Mr. Ahearne telling my friend Sue
11 and I that cleanup is like pick-up sticks. That has
12 frightened us ever since we heard that statement.

13 I am a wife. I am the mother of two teenaged
14 children and I am a lady and I live two miles from that
15 plant, so you understand my concern. With a referendum
16 vote, we have got to know that democracy is going to
17 work.

18 I was going to say I think today and tonight
19 is a farce. I probably should not say it because in my
20 leadership of three years and seven months I have tried
21 to bring hope to all of my neighbors and it is getting
22 thin. All we have to do is close our eyes or hear
23 one-minute sirens. Everything comes back to us and you
24 want to subject us to that again. Surely you have
25 children, you have wives, family.

1 We complained about the venting at the Liberty
2 Fire Hall in 1980. We thought the venting was over --
3 the krypton venting. But suddenly I discovered 27 out
4 of 33 days they are venting again. I publish it in the
5 paper. Suddenly there is no indication that they are
6 venting. It is in the evening news, not in the morning
7 news, so after the fact I scared them off. To me, that
8 is deceit on Met Ed's part. They have not learned their
9 lesson.

10 I think if you turn TMI on or permit that, you
11 had better look out for this lady. People like me pay a
12 price with our time and our marriages, with our family
13 and our health too. The only thing that is going to
14 makeup for any of that is the democratic system working,
15 and if we are good enough to elect Thornburg into
16 office, senators, legislators, then that vote on the
17 referendum better stand.

18 Other committed people like me -- and it was
19 the day we evacuated -- we said if we ever come back we
20 are going to do everything in our power to keep that
21 plant closed. And I hope that the people where I live
22 in York County -- I did not have a chance to vote -- I
23 hope the people will remember those commissioners when
24 they are up for reelection and will be good enough to
25 put them back in office, but they were not good enough

1 to let us vote.

2 What amazes me most of all is if you permit
3 Met Ed to open up that plant, your reputation is on the
4 line too. You are going to be done. Right now you have
5 that much of a reputation. Met Ed has nothing. You are
6 done. I think it is incredible that five of you come up
7 from D.C. and tell us that we have to live with Met Ed's
8 incompetency and you can go back to a safe Washington,
9 D. C. That is incredible.

10 Thank you very much.

11 CHAIRMAN PALLADINO: Thank you very much. Any
12 questions?

13 Next we have the Commonwealth of Pennsylvania
14 and then the Staff. I am going to suggest a two-minute
15 break while the Commonwealth of Pennsylvania is coming
16 up and I would appreciate focusing as much as possible
17 on new issues or issues of special concern to the
18 Commonwealth and to the Staff.

19 We will take two minutes.

20 (A brief recess was taken.)

21 CHAIRMAN PALLADINO: I wonder if we might
22 reconvene and we will hear from the representatives from
23 the Commonwealth of Pennsylvania. Ms. Straube.

24 STATEMENT OF MICHELE STRAUBE ON BEHALF OF
25 THE COMMONWEALTH OF PENNSYLVANIA

1 MS. STRAUBE: I will explain in just a
2 minute. My name is Michele Straube. I am an Assistant
3 Counsel for the Pennsylvania Department of Environmental
4 Resources. Bob Adler unfortunately was unable to come
5 today to address you personally. He sprained some of
6 the muscles in his back this weekend and he cannot move
7 without extreme pain, so he has prepared a statement
8 summarizing the Commonwealth's position in this
9 proceeding which he has asked me to read for you.

10 To my right is Mr. Belser. He is from the
11 Pennsylvania Emergency Management Agency and he will be
12 available to answer any questions, if you have any, on
13 emergency planning.

14 I would like to begin by expressing the
15 Commonwealth's gratitude for the Commission's trip to
16 Harrisburg. In particular, the Commonwealth appreciates
17 the Commission's efforts to afford members of the public
18 an opportunity to express their views on restart. While
19 not wishing to diminish the importance of this
20 afternoon's session, the parties to this proceeding have
21 had numerous opportunities to present their positions on
22 restart. The majority of the citizens in this area have
23 had no such opportunity and the Commonwealth urges the
24 Commission to give careful consideration to their views,
25 both those given orally and those given by written

1 statements.

2 The Commission has posed three questions in
3 which it is particularly interested. The Commonwealth
4 will incorporate its views on immediate effectiveness
5 into its responses to those questions.

6 The first question is whether the Commission
7 should adopt the findings of the Licensing Board or the
8 Special Master regarding the cheating incidents. The
9 Special Master's findings of fact were comprehensive
10 and, for the most part, well supported. It should be
11 noted that the Licensing Board adopted the majority of
12 the Special Master's findings as its own.

13 While the Commonwealth urges the Commission to
14 review all of the Special Master's and the Licensing
15 Board's findings on operator cheating. The Commission
16 should focus on those issues where the ASLB specifically
17 overturned the Special Master's findings. The
18 Commonwealth's specific recommendations on those
19 differences between the Licensing Board's and the
20 Special Master's findings are contained in its written
21 exceptions to the Appeal Board.

22 The differences between the Special Master and
23 the Licensing Board were related primarily to the
24 ramifications of the evidentiary record. The
25 Commonwealth believes that the Licensing Board intended

1 to minimize the significance of many of the aspects of
2 the evidentiary record that were taken more seriously by
3 the Special Master, in particular the importance of the
4 integrity in the Licensee's operations staff.

5 While the Commonwealth does not necessarily
6 agree with the Special Master's broad conclusion that
7 the integrity of Licensee's entire operating staff was
8 compromised, the Commonwealth strongly objects to the
9 operation of TMI-1 by individuals whose integrity
10 clearly has been compromised. The Licensing Board
11 failed to recognize a set and fundamental principle
12 established early in Atomic Energy Commission
13 precedent. I believe the cases are cited in the
14 Commonwealth's brief to the Appeal Board. That
15 principle is that integrity is critical to safety.

16 The second major disagreement between the
17 Special Master and the Licensing Board raised in the
18 Commonwealth's exceptions to the Appeal Board involves
19 the quality of Licensee's training program. The Special
20 Master made the far-reaching statement that on the basis
21 of the record in the reopened proceeding Licensee's
22 training and testing program contributed an inadequate
23 response to the Commission's order and notice of
24 hearing.

25 Again, while not necessarily subscribing to

1 this broad conclusion, the Commonwealth does believe
2 that the Licensing Board minimized the importance of
3 demonstrated inadequacies in Licensee's training
4 program. In particular, the qualifications of
5 Licensee's training staff should be assured prior to
6 restart of TMI-1 rather than within two years, as was
7 suggested by the Licensing Board.

8 The second question that was asked by the
9 Commission is what light does the cheating shed on the
10 management competence, attitude and integrity of GPU
11 Nuclear. The Commonwealth has not requested a finding
12 that GPU's management overall is not competent to
13 operate TMI. However, we certainly find it disturbing
14 that cheating could have occurred within the GPU
15 organization through the level of shift supervisor, and
16 the Commonwealth is equally disturbed at the lack of
17 integrity displayed by a training instructor at TMI-1.

18 The Commonwealth is also extremely disturbed
19 that an attitude was allowed to develop within GPU which
20 permitted cheating to occur. The Licensing Board found
21 that this attitude was a direct result of the negligence
22 of GPU management. The Commonwealth strongly opposes
23 permitting restart using individuals who have a
24 demonstrated lack of integrity.

25 In addition to the direct danger posed by

1 these individuals, the non-existent or lax punishment
2 suggested by the Licensing Board would tend to
3 perpetuate the attitude which was permitted to develop
4 at TMI. More importantly, the lack of remedies proposed
5 by the Board calls into question the integrity of the
6 entire NRC regulatory process.

7 Third, the Commission posed a series of
8 questions about the status of emergency planning for
9 TMI. As I indicated, a PEMA representative is available
10 if the Commission has further specific questions. I can
11 give a general summary of our most recent emergency
12 planning efforts.

13 Public information necessary to support the
14 emergency response at TMI has been completed. General
15 information brochures and route information were
16 distributed in July to all members of the public in the
17 plume exposure pathway emergency planning zone.
18 Emergency planning efforts for farmers have been
19 essentially completed and incorporate into the
20 Commonwealth's emergency plans. A public information
21 brochure for farmers is almost complete and will be
22 distributed to farmers in the ten-mile EPZ shortly.

23 The one area of extreme concern to the
24 Commonwealth in the emergency planning area is dosimetry
25 for emergency workers. Although the Appeal Board ruled

1 against the Commonwealth on this area, the Commonwealth
2 is planning to file a petition for Commission review
3 this week and will continue to oppose restart until this
4 issue is addressed. The Commonwealth and the Licensee
5 have begun negotiations in this area and we are
6 optimistic that this issue can be resolved short of
7 Commission review.

8 Briefly, the Commonwealth believes that
9 largely volunteer emergency workers responding to an
10 emergency have a right to an accurate and reliable
11 measurement of the radiological dose received during the
12 emergency. This goal can only be assured by providing
13 all emergency workers with both self-reading and
14 permanent record dosimeters. The Licensee has argued
15 that these workers without whom the plant could not be
16 operated, deserve some lower degree of protection.

17 On the contrary, the Licensee has the
18 responsibility to provide these workers with the maximum
19 amount of protection feasible, i.e., a sufficient supply
20 of permanent record dosimeters to provide one per
21 emergency worker in the event of an emergency at TMI.

22 In summary, the Commonwealth will continue to
23 oppose restart until all individuals on GPU's staff with
24 a demonstrated lack of integrity are prohibited from
25 operating TMI-1. We will continue to oppose restart

1 until the Licensee demonstrates that its training staff
2 is appropriately qualified to ensure that the TMI-1
3 operations staff has a high level of competence. And we
4 will continue to oppose restart until dosimetry supplies
5 necessary to support the emergency response at TMI are
6 provided.

7 I would like to take this opportunity also, as
8 suggested by Commissioner Ahearne at the beginning of
9 this hearing, to make a brief statement concerning the
10 Commonwealth's overall concerns regarding the restart of
11 TMI-2. The concerns which I just summarized represent
12 the issues considered by the ASLB and those issues
13 raised by the Commonwealth in the context of immediate
14 effectiveness.

15 They do not, however, represent all of the
16 concerns that the Commonwealth has concerning the
17 restart of TMI-1. Governor Thornburg has previously
18 stated that the Commonwealth will not support the
19 restart of Unit 1 until two conditions have been met.
20 The first is that there is a clear prospect for
21 financing the cleanup of TMI-2, and the second is that
22 adequate health and safety assurances are provided to
23 show that the operation of TMI-1 would pose no threat to
24 the public.

25 At present, these two conditions have not been

1 met. While substantial progress has been made in
2 developing an equitable cost-sharing plan for financing
3 the cleanup of Unit 2, the question of how the national
4 electric utility industry share will be provided remains
5 unresolved.

6 In regard to health and safety issues, I have
7 already expressed our concern in two areas -- that is,
8 operating cheating and emergency planning -- where we
9 disagree with the Licensing and Appeal Boards' findings.

10 There are other technical issues, one of which
11 is steam generator tube problems, which must still be
12 addressed by the NRC Staff.

13 In summary, the Commonwealth intends to
14 monitor all of the issues involved in the TMI restart
15 and will continue to advise the NRC of our position,
16 both within the context of formal litigation proceedings
17 and through any other mechanisms which are available to
18 us.

19 Now if you have any questions, I can try to
20 answer them or Mr. Belser can answer them. Otherwise, I
21 would request the opportunity to have Mr. Adler respond
22 to questions that you have in writing when he comes back
23 to work.

24 CHAIRMAN PALLADINO: All right. Thank you
25 very much.

1 I have one question that I want to make sure
2 that I understood correctly. You said that emergency
3 plans for the farm animals was complete. Did that have
4 any implication as to your feeling about the adequacy of
5 it? The reason I ask is you heard earlier a number of
6 people, or several people, raise questions about the
7 adequacy of the planning for farmers, and I was
8 interested in your viewpoint.

9 MR. BELSER: Actually, what we have done is
10 the farmers are now in the category of emergency workers
11 and dosimetry and potassium iodide would be
12 predistributed to the county emergency operations
13 centers where farmers may come in, register, and receive
14 their potassium iodide and dosimetry for those farmers
15 who need to come back into the emergency planning zone
16 in order to take care of their livestock and so forth.

17 CHAIRMAN PALLADINO: Are there other
18 questions?

19 COMMISSIONER AHEARNE: I have two. One is
20 certainly relatively short. Mr. Belser, perhaps you
21 could say anything you might know about the status of
22 the Elizabethtown State College plan.

23 MR. BELSER: I am probably the most eminently
24 qualified to respond to that question, although I cannot
25 add much to what you already have, except that, as you

1 know I am sure, we have plans for all of the school
2 districts. Elizabethtown College perhaps has not been
3 too motivated toward preparing a plan, although we have
4 made repeated efforts through the Department of
5 Education, through which we must go, in order for them
6 to finish their plan.

7 They have repeatedly said well, it is in the
8 final stages. But at least as of today it has not
9 arrived in my office and we are the reviewing authority
10 for that plan.

11 COMMISSIONER AHEARNE: Is it a question that
12 they need money to do their planning or that they do not
13 think it is necessary to do the planning?

14 MR. BELSER: I do not think, sir, that it is
15 either of those. It is just a question -- this is just
16 my personal opinion -- of getting on with it. We have
17 made repeated efforts to indicate that look, we have
18 plans for all the school children and colleges, of
19 course, since they are so mobile -- their students are
20 mobile -- they seem to have in many cases a feeling of
21 less urgency in the matter.

22 Just last week I ran a check on it again on
23 Elizabethtown College to get them and they indicated
24 that well, it is on the way. When I see it --

25 COMMISSIONER AHEARNE: It is in the mail.

1 MR. BELSER: Yes.

2 COMMISSIONER AHEARNE: The other question I
3 have, Miss Straube, perhaps you could either say a few
4 words or send something later, but I would like a little
5 better explanation, if I could -- and from what I have
6 been able to read on the submissions -- as to why you
7 feel the self-reading dosimeters are not sufficiently
8 adequate to provide the protection to the emergency
9 workers and why you feel the TLDs are sufficiently
10 essential that the Commonwealth's position is that
11 without it it cannot possibly be done.

12 MR. BELSER: I think she is going to defer to
13 me. There is considerable background involved here.
14 Ever since September of 1980, when the Nuclear
15 Regulatory Commission provided guidance on dosimetry, at
16 that time they were advising that the appropriate
17 dosimetry would be CDV-730, which is a zero to 20 rad
18 self-reading dosimeter, CDV-742, which is a zero to 200
19 self-reading dosimeter, and a thermal-luminescent
20 dosimeter.

21 At that time, the Commonwealth of
22 Pennsylvania, we were in the role of completely
23 rewriting the state plan and preparing the county plans
24 and written into all of those plans and all of the
25 subsequent preparedness seminars which we provide in

1 preparation for exercises emergency workers have grown
2 to expect that ultimately they are going to receive
3 three pieces of dosimetry -- two of them self-reading,
4 one of which is quite accurate on the zero to 20 scale.
5 It is easy to read. The CDV-742, on the zero to 200
6 scale, when you are reading it the lower end of the
7 scale is not too accurate.

8 Both of them are not particularly reliable.
9 You can drop them. You can jar them and consequently
10 you may not have a very good reading at all. So the
11 idea of having something which provides a permanent
12 record has become a psychological matter.

13 Perhaps the situation has also been
14 contributed to by the fact that the Susquehanna Steam
15 Electric Station, we just completed negotiations for the
16 procurement of all three types, so there is somewhat of
17 a precedent involved here. But, most important is the
18 fact that for the past two years when we have been
19 trying to resolve this thing and determine exactly what
20 we needed -- and, I might add, sir, that I have written
21 personally two letters to the Nuclear Regulatory
22 Commission through our channel, which is, of course, the
23 Federal Emergency Management Agency, asking someone to
24 address this matter as to exactly what type of dosimetry
25 we should have.

1 To date, sir, we have not on the Commonwealth
2 ever received an answer to any of those probes. So we
3 in the Commonwealth, in the absence of guidance perhaps
4 through FEH, took your original guidance and
5 incorporated that into our plans. And so all of our
6 emergency workers, which is on the order of about 16,000
7 in the Commonwealth, have just become accustomed to that
8 that is what they are going to get.

9 MS. STRAUBE: If I could add another point to
10 that. Mr. Belser made all the points that needed to be
11 made, but I would like to reemphasize that in our
12 opinion it is also the permanent record feature of it
13 and the fact that the TLDs are more reliable and more
14 accurate that we feel they are necessary, in addition to
15 their already being in our plans.

16 COMMISSIONER GILINSKY: I have a question.
17 Miss Straube, you said there are some individuals whose
18 employment at TMI the Commonwealth objected to. Could
19 you tell me how many individuals fall into that
20 category?

21 MS. STRAUBE: I am going to go only on the
22 answer in my brief and if it is incorrect, I will submit
23 something in writing. It is the three persons discussed
24 in the brief. One is DD, G and H. I am guessing.

25 COMMISSIONER GILINSKY: Thank you.

1 COMMISSIONER ASSELSTINE: Just to follow up on
2 that question, you mentioned the remedy of excluding
3 specified those individuals whose integrity had clearly
4 been compromised -- excluding those people from any
5 responsibility with respect to TMI-1 as a remedy.

6 Would the Commonwealth view that as a
7 sufficient remedy to satisfy their concerns on the
8 management integrity issue?

9 MS. STRAUBE: Based on my reading of the
10 brief, I think that is all we have presently requested
11 of the Commission.

12 COMMISSIONER ASSELSTINE: And it is those
13 individuals on which you all have filed exceptions to
14 the Appeal Board?

15 MS. STRAUBE: It is my understanding that is
16 correct.

17 COMMISSIONER ASSELSTINE: I have one follow-up
18 question to Mr. Belser.

19 In developing your information brochures and
20 your approach for farmers, are you working with the
21 farmers in the affected area to ensure that you are
22 addressing the kind of concerns that we heard from
23 earlier today?

24 MR. BELSER: We are working through the
25 Department of Agriculture, who has the primary

1 responsibility for that information. Of course, they
2 are also in the process of putting out their brochure,
3 which will logically include this information which I
4 gave to you earlier.

5 COMMISSIONER ASSELSTINE: Do you know if they
6 are going out and talking to those people -- to the
7 farmers themselves -- to find out what their concerns
8 are and to ensure that they are being adequately
9 addressed?

10 MR. BELSER: I could not say that I know that
11 for a fact, no.

12 COMMISSIONER ASSELSTINE: Thank you.

13 CHAIRMAN PALLADINO: Any other questions?

14 All right. Thank you very much. We
15 appreciate it.

16 MS. STRAUBE: Thank you for listening to me.

17 CHAIRMAN PALLADINO: I guess next is the NRC
18 Staff, if they would come forward.

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1 CHAIRMAN PALLADINO: Who's going to be the
2 principal speaker, Mr. Goldberg?

3 MR. GOLDBERG: Yes, sir.

4 CHAIRMAN PALLADINO: Please proceed as soon as
5 you're ready.

6 STATEMENT OF NRC STAFF

7 MR. GOLDBERG: Chairman Palladino and
8 Commissioners:

9 My name is Jack Goldberg, counsel for the
10 Staff. I represented the Staff in the reopened
11 proceeding on cheating. With me today are Mr. Joseph
12 Gray, Deputy Assistant Chief Hearing Counsel, who
13 represented the Staff on emergency planning matters, and
14 Mr. James Cutchin, who represented the Staff on plant
15 design and operational safety issues. Also present at
16 the table with me today are: Hugh Thompson, Director of
17 the Division of Human Factors Safety of the Office of
18 Nuclear Reactor Regulation; Mr. Brian Grimes, who is
19 director of the Division of Emergency Planning of the
20 Office of Inspection and Enforcement.

21 Staff's presentation today will consist of
22 remarks by me concerning the first two issues of
23 particular interest to the Commission, which concern
24 cheating, followed by remarks by Mr. Gray concerning the
25 third issue of particular interest to the Commission, on

1 the status of emergency planning efforts. The Staff is
2 also available to answer any questions that the
3 Commission may have.

4 The first issue of particular concern to the
5 Commission concerns whether the Commission should adopt
6 the findings of the Licensing Board or the Special
7 Master regarding cheating. The Staff's position is that
8 the Commission should adopt the findings of the
9 Licensing Board. There are several reasons why the
10 Staff believes that the Commission should adopt the
11 Licensing Board's findings and not the Special Master.

12 First of all, we believe that the Licensing
13 Board's findings are well reasoned and soundly based on
14 the evidence. They were reached after carefully
15 considering the parties' proposed findings, the report
16 of the Special Master, and his conclusions from the
17 evidence, as well as the parties' comments on the
18 Special Master's report and comments by certain
19 individuals which, although not parties to the
20 proceeding, were mentioned in the Special Master's
21 report.

22 The Licensing Board's findings follow directly
23 from the evidence, without the need to engage in
24 speculations and presumptions about individuals'
25 motives, which often was required by the Special Master

1 to reach his findings. The Licensing Board's findings
2 and conclusions are consistent with the proposed
3 findings that the Staff submitted on all the issues in
4 the proceeding which it addressed at the hearing and
5 consistent with our comments on the Special Master's
6 report.

7 Our proposed findings on all the issues and
8 our comments on the Special Master's report fully
9 explain in detail the Staff's position on each one of
10 the issues. Our position is reflected in the Licensing
11 Board's findings.

12 Finally, the Licensing Board in this
13 proceeding, not the Special Master, was empowered by the
14 Atomic Energy Act, the Commission's regulations, and the
15 Commission's notice of a hearing in this proceeding to
16 find the facts on cheating. The significance of this,
17 as Commissioner Ahearne recognized, is not that the
18 Commission is bound by the findings of the Licensing
19 Board, but that much has been made by the Intervenors of
20 the fact that the Special Master presided at the
21 evidentiary hearing on cheating and observed witnesses,
22 and therefore, they argue, it was improper for the
23 Licensing Board to reverse his findings and
24 conclusions.

25 Of course, if that argument had merit there

1 would be no reason behind our regulations which provide
2 that Special Masters may hear evidence and issue
3 advisory reports. It was the Licensing Board's duty to
4 independently evaluate all of the evidence, and it did
5 so, unanimously reaching the findings and conclusions on
6 each one of the issues.

7 COMMISSIONER GILINSKY: Wouldn't you say this
8 is a question on which demeanor is particularly
9 important? Special Masters are called in for all sorts
10 of technical issues.

11 MR. GOLDBERG: I certainly think that demeanor
12 has a role to play in the evaluation of witnesses'
13 credibility. But what the Licensing Board did here is
14 look to see whether there were more objective indicia of
15 credibility than the Special Master's observations of
16 witnesses' demeanor.

17 For example, one of the particular issues that
18 is of great concern to the Intervenors in their claim
19 that the Licensing Board erred in reversing the findings
20 of the Special Master are those concerning Mr. Ross.
21 The Licensing Board looked to the examination questions
22 and answers on the NRC exam, the suggestions that Mr.
23 Ross made in connection with changes that he believed
24 should be made to the NRC's answers, and these involved
25 to a large extent technical judgments on whether the

1 suggestions made by Mr. Ross were valid suggestions and
2 whether they were appropriate to be made based on the
3 Licensee's training materials.

4 For these we have the Licensing Board, which
5 in addition to an attorney had two technical members,
6 and collectively they unanimously agreed that Mr. Ross
7 made no suggestions which were improper, based on their
8 careful evaluation of the exam answers and questions,
9 the NRC's answer key, the NRC witnesses' testimony on
10 the suggested changes, and the Licensee's training
11 material.

12 So I would say, while it is certainly
13 appropriate to consider witness demeanor, that the
14 Special Master looked at that almost to the exclusion of
15 some of the direct evidence on some of the issues, and
16 that is where the Licensing Board carefully evaluated
17 the direct evidence on the issues.

18 The second issue of particular concern to the
19 Commission --

20 COMMISSIONER GILINSKY: I wonder if I could
21 stop you there, Mr. Goldberg.

22 MR. GOLDBERG: Yes.

23 COMMISSIONER GILINSKY: Whether or not you
24 accept the finding of the Special Master or the Board,
25 still you get a picture of a lot of cheating. And what

1 I would like to ask you is, how would you compare that
2 with the situation at other plants?

3 MR. GOLDBERG: First, Commissioner Gilinsky, I
4 think that there is a big difference between the amount
5 of cheating that would be detected by a reading of the
6 Licensing Board's decision compared with a reading of
7 the Special Master's decision. The Licensing Board's
8 decision found that the cheating was fairly limited to a
9 certain number of clearly identified individuals.

10 Certainly when it comes to Licensee's senior
11 management, the Licensing Board as well as the Special
12 Master found that there was no evidence at all of their
13 involvement or condoning cheating or encouraging
14 cheating in any way.

15 COMMISSIONER GILINSKY: Suppose I withdraw
16 that characterization. How would you compare the
17 situation at this plant with that at other plants in
18 terms of the extent of cheating and the conduct of
19 examinations and the performance in terms of integrity
20 on NRC examinations?

21 MR. GOLDBERG: I think I'll ask Mr. Thompson
22 to address that, if I may. He's more knowledgeable than
23 I.

24 MR. THOMPSON: Hugh Thompson, NRC Staff.

25 This particular incident I think is the most

1 significant case that we have. In fact, I'm not aware
2 of any other specific case of direct cheating on an NRC
3 exam, from which an individual has subsequently had his
4 examination or license revoked.

5 COMMISSIONER GILINSKY: I wonder if I could
6 take you, have you speculate beyond the specific facts
7 here. What is your sense -- you are in charge of this
8 area of the NRC. What is your sense of the situation
9 out in the industry? Are we dealing with a typical
10 case? Are we dealing with something which is an
11 aberrant case?

12 MR. THOMPSON: My sense is -- and I've been
13 the Director of the Division of Human Factors for about
14 a year now -- is that prior to the incident at TMI our
15 proctoring of exams was not to the level that we are
16 presently doing now, and that that probably led some
17 individual utilities to not take the seriousness of the
18 examinations that we intended and that we have today.

19 I know a number of utilities felt that the
20 integrity of the exam is important. I know of no one,
21 no utility, that does not have a very strong feeling in
22 that area, though their own internal process at times
23 leads one to believe that we still need to maintain
24 vigilance on our part, and that is one of the steps that
25 we've taken with respect to the proctoring aspect.

1 I would say generally, though, this was, I
2 would say, probably the worst case that I feel was out
3 there.

4 COMMISSIONER GILINSKY: All right.

5 MR. GOLDBERG: The second issue which was of
6 particular concern to the Commission was the light which
7 was shed on GPU's management attitude, integrity and
8 character based on the cheating episode. Of course, the
9 answer to this question depends upon which version of
10 the facts one accepts, the Licensing Board's on one hand
11 or the Special Master's on the other.

12 Assuming that the Commission were to generally
13 adopt the findings of the Licensing Board, I think in
14 retrospect there are several things that can be said
15 about the light which was shed on the attitude,
16 integrity and competence of GPU Nuclear. On the one
17 hand, looking back we can fault Licensee in a number of
18 respects. They did not explicitly enunciate a policy
19 against cheating and did not expressly communicate to
20 their operators the importance and significance and need
21 for complete honesty. They mistakenly assumed that
22 honesty was commonplace.

23 Senior members of Licensee's management
24 testified that they feel responsible for the cheating
25 which occurred. In particular, they feel responsible

1 for not assuring that their operators were ready to take
2 the NEC exam both substantively and emotionally.

3 In light of the consequences, of which we are
4 all aware now, concerning the cheating, the Licensee has
5 candidly admitted that these are serious deficiencies
6 which existed in their organization at the time of the
7 cheating. They also did not have in place at the time
8 of the cheating appropriate procedures and practices for
9 the administration, instruction and certification of
10 operators. These things I think reflect adversely on
11 the Licensee.

12 On the other hand, it can also be said that
13 there's no evidence that Licensee's senior management
14 was involved in cheating in any way. They cooperated
15 fully and completely with the Staff in the Staff's
16 investigation of cheating, and they've conducted their
17 own investigations into cheating. When it was
18 identified that a particular individual cheated, the
19 Licensee took prompt and appropriate remedial action.

20 Licensee also took steps to improve its
21 training program, its certification of operators, and
22 its testing procedures for the certification of
23 operators. In these respects, I think the cheating
24 incidents reflect well on the management integrity and
25 character, all things considered.

1 COMMISSIONER GILINSKY: I assume you mean
2 their response to --

3 MR. GOLDBERG: Excuse me?

4 COMMISSIONER GILINSKY: I assume you mean
5 their response to the cheating incidents?

6 MR. GOLDBERG: Yes. The response to the
7 cheating I think reflects well on their character and
8 integrity. I think when we stand back and look at both
9 the pluses and the minuses, what we can say, as the
10 Licensing Board did say, is that there is no reason,
11 based on the evidence that was developed in the cheating
12 proceeding, to modify or reverse the Licensing Board's
13 prior finding that GPU's management had demonstrated its
14 managerial capability and technical capability to safely
15 operate TMI-1.

16 That concludes my prepared remarks on the
17 first two issues of interest to the Commission. I would
18 now like to turn the floor over to Mr. Gray, who will
19 address the third issue, on the status of emergency
20 planning.

21 MR. GRAY: In view of the lateness of the
22 hour, I will limit my remarks to three areas: emergency
23 planning for farmers, the matter of dosimetry for
24 emergency workers, and the matter of the Licensee's
25 staffing of its emergency operations facility.

1 As to emergency planning for farmers, the
2 basic plan for farmers in the TMI area is the same as
3 the planning for the general population in that area.
4 However, the Commonwealth of Pennsylvania has gone
5 beyond that basic planning to some extent, as indicated
6 by Mr. Belser, the Commonwealth will treat farmers with
7 livestock as emergency workers and provide to such
8 farmers dosimetry and radioprotective drugs, potassium
9 iodide, just as emergency workers will be provided with
10 such protections. This aspect of the Commonwealth's
11 planning will provide some additional protection to
12 farmers who either choose to remain on their farms or
13 return to their farms early when the general evacuation
14 is in effect.

15 In addition, the Commonwealth will provide to
16 all farmers in the plume emergency planning zone for TMI
17 specially formulated agricultural information brochures
18 specifically directed to farmers, which will provide
19 instructions on methods for sheltering and caring for
20 livestock, provide instructions on the protection of
21 home-grown foodstuffs and milk which may be subject to
22 contamination, and the use of that home-grown foodstuff
23 and milk during an emergency, and will provide
24 information on specific protective actions a farmer can
25 take for himself if he chooses to remain on his farm

1 when an evacuation has been ordered.

2 My understanding is that these brochures are
3 anticipated to be completed within the next month.

4 CHAIRMAN PALLADINO: Could you speak a little
5 more directly into the mike.

6 MR. GRAY: It's anticipated these brochures
7 would be completed in the next month and distributed to
8 the farmers some time in December of this year.

9 Contrary to the Aamodt's assertion, the Appeal
10 Board did not find that emergency planning for farmers
11 was inadequate and did not order that emergency plans
12 for farmers be revised or changed.

13 COMMISSIONER AHEARNE: Isn't it accurate that
14 what the Appeal Board said is that much of the issue was
15 no longer an issue, was moot, because in the interim
16 period between the Licensing Board and when the Appeal
17 Board addressed it the State of Pennsylvania had revised
18 its brochures?

19 MR. GRAY: Actually, that Appeal Board ruling
20 was with respect to the general emergency information
21 brochures that the Commonwealth of Pennsylvania
22 distributed to the general population. As to that, the
23 Commonwealth revised that brochure and the Appeal Board
24 found that the revised brochure in fact had corrected a
25 number of the objectionable materials in the original

1 brochure. That, however, I do not believe was a finding
2 as to the agricultural brochures for the farmers.

3 As to the matter of dosimetry for emergency
4 workers, the Appeal Board found, and the Staff supports
5 the finding, that there are adequate numbers of
6 self-reading dosimeters for emergency workers in the TMI
7 area, and that the self-reading dosimeters used in
8 combination or in the manner set forth in the
9 Commonwealth and the County emergency plans will provide
10 not only adequate warning to emergency workers as to
11 when they are approaching doses in the field which they
12 should avoid, but also a method by which a permanent
13 record of the dose received can be compiled.

14 CHAIRMAN PALLADINO: Would you say that
15 again? Are you talking about they can accumulate up to
16 a certain amount?

17 MR. GRAY: That's right. The self-reading
18 dosimeters -- the two types of dosimeters would cover a
19 range of zero to 20 R and zero to 200 R. Now, under the
20 Commonwealth's procedures for emergency workers, workers
21 are to read those dosimeters approximately every
22 half-hour and to record the dose they read from those
23 dosimeters. In that manner they can compile a record.

24 CHAIRMAN PALLADINO: Are they going to have
25 both ranges?

1 MR. GRAY: Yes. The Commonwealth has
2 sufficient supplies for TMI to provide both such
3 self-reading dosimeters to emergency workers.

4 CHAIRMAN PALLADINO: We have one at zero to 20
5 and one of zero to 200?

6 MR. GRAY: That is correct.

7 CHAIRMAN PALLADINO: Thank you.

8 MR. GRAY: In view of this, it is the Staff's
9 view at least that the dosimetry now available for
10 emergency workers is adequate, and that the lack of
11 permanent record dosimeters should not constitute an
12 impediment to restart.

13 Finally, as to the staffing of the Licensee's
14 emergency operations center, as the Licensee indicated,
15 the Appeal Board or the Licensing Board had imposed a
16 condition advocated by the Staff wherein the Licensee
17 would be required to staff to manage the emergency
18 operations facility with an emergency support director
19 and transfer protective action recommendation authority
20 to that emergency support director within one hour of
21 declaration of a site emergency.

22 The Appeal Board in ALAB 498 reversed the
23 Licensing Board in this matter and would allow the
24 Licensee to delay up to four hours in manning its EOF
25 with an emergency support director and transferring

1 protective action decisionmaking authority. The Staff
2 is of the view that the Licensing Board's decision was
3 the correct one and that the Appeal Board's reversal was
4 inappropriate, and the Staff is now considering whether
5 to seek Commission review of that Appeal Board
6 decision. The Staff will make a determination by
7 Friday, November 12th, as to whether it will file a
8 petition for Commission review under 10 CFR 2.786.

9 In the interim, the Licensee, as we have
10 heard, has committed to man its EOF within an hour of
11 the declaration of an emergency and transfer protective
12 action recommendation authority within an hour, and in
13 that vein, providing that commitment is met, the Staff
14 does not believe that the manning of the EOF, the issue
15 over the manning of the EOF, is such as to prevent a
16 Commission decision on a restart while any appeal on
17 Commission review on that matter might be pending.

18 CHAIRMAN PALLADINO: Does that conclude your
19 presentation?

20 MR. GRAY: That concludes the Staff's prepared
21 remarks. We do have a number of Staff personnel
22 available to answer questions of the Commissioners.

23 CHAIRMAN PALLADINO: Thank you.

24 We're open for Commission questions.

25 COMMISSIONER GILINSKY: I would like to direct

1 you to page 125 of the Board's opinion. The Board says,
2 "The NRC Staff takes a surprisingly mild position on the
3 August 1979 certification issue." This concerns Mr.
4 VV.

5 What I'd like to ask you is, does the Staff
6 regard the conduct there as cheating? Does it believe
7 that the company should have informed the NRC about the
8 incident? And when the Staff did find out that the
9 completion of the requirement for requalification had
10 been falsely certified to the NRC, what did the NRC
11 Staff do? And does the man still have his license?

12 MR. GOLDBERG: First of all, Commissioner
13 Gilinsky, the Staff stated in its comments on the
14 Special Master's report which we submitted to the
15 Licensing Board that the Special Master was correct,
16 that false information was submitted to the NRC on the
17 certification of VV. We indicated in our comments that
18 the Licensee was wrong in certifying VV based on the
19 false information which it included in the letter.

20 We also took the position that it was wrong
21 for the Licensee to certify VV in that there was
22 apparently no need for his license, which is one of the
23 requirements for an operator license.

24 The question of whether or not Mr. VV cheated
25 is one which necessarily entails, I believe, a

1 philosophical discussion, because Mr. VV never concealed
2 the fact that he was submitting someone else's work. It
3 was in someone else's handwriting. He simply attached
4 it to other papers which were in his handwriting, in a
5 distinctly different handwriting, and passed those
6 materials in.

7 There is no question that what Mr. VV did was
8 wrong and improper under any standards. The question of
9 whether or not you call it cheating is an issue which is
10 really a philosophical one and it is one that we did not
11 specifically address in the hearing.

12 COMMISSIONER GILINSKY: If your son handed in
13 a high school report in someone else's handwriting,
14 would that be considered cheating or not?

15 MR. GOLDBERG: If those are the only facts
16 that you want to present, the answer is yes. However,
17 it is not directly analogous to the facts concerning Mr.
18 VV's submission of another's work, in that there was
19 testimony by Mr. VV that he believed his only obligation
20 was to understand the material that the Licensee's
21 training department was conveying to him, and by handing
22 in what he believed were the correct answers to the
23 questions, even though in another's handwriting, he was
24 demonstrating that he knew that material.

25 Now, certainly one can quarrel with the

1 validity of his thinking along those lines, but that was
2 his testimony. And again, one gets into the question of
3 whether this constitutes cheating or not.

4 COMMISSIONER GILINSKY: I must say, I am
5 appalled by that answer.

6 COMMISSIONER AHEARNE: A couple of questions.
7 The discussion -- I guess one of the latest Appeal Board
8 findings on emergency planning talks about the NRC
9 emergency plans, and it raises some questions. One
10 question is, have we reached a conclusion as to who we
11 are going to require from the NRC Staff or allow from
12 the NRC Staff to be in the control room. I think they
13 raise the question of more than four people from the NRC
14 crowding into a crowded space.

15 MR. GRAY: I will have Mr. Grimes address
16 that.

17 MR. GRIMES: We have reviewed the NRC
18 complement in the control room and with the specific
19 configuration that the Licensee has and the functions
20 that he now performs in the control room we believe that
21 four people are indeed appropriate in the control room.
22 In most situations those individuals would be in the
23 technical support center. Most of those individuals
24 would be in the technical support center because the
25 functions would be performed in the technical support

1 center.

2 COMMISSIONER AHEARNE: I thought somewhere in
3 that same Appeal Board decision they mention the fact
4 that the technical support center might only hold about
5 five people.

6 MR. GRIMES: It would depend on the definition
7 --

8 COMMISSIONER AHEARNE: And if you have four in
9 there, that doesn't leave much room for the Licensee.

10 MR. GRIMES: There are essentially two rooms
11 involved in the technical support center. There is a
12 small walled office and a larger room which also has
13 tables in it, which can be used for individuals, and
14 there are adjacent spaces also.

15 The whole question of the location of the
16 various components of the Licensee's emergency
17 organization in-plant was the subject of some
18 observations at a recent exercise by our team which
19 observed that, and their report is not yet written, but
20 they've had their exit interview with the Licensee. And
21 while they found the overall performance satisfactory,
22 they did make a recommendation that the Licensee move
23 some of the control room functions to the technical
24 support center and utilize more of the space other than
25 the very small internal office in the their technical

1 support center functions.

2 COMMISSIONER AHEARNE: But at the moment the
3 Licensee has not responded to that?

4 MR. GRIMES: Has not.

5 COMMISSIONER AHEARNE: A second question. The
6 Appeal Board raised a concern about what they viewed as
7 inconsistent or inadequate coordination between the
8 NRC's plans, Region I, the TMI program office, and the
9 NRC headquarters. And they question whether they are
10 mutually consistent. Do you have any comment?

11 MR. GRIMES: Yes. There are several items
12 which I believe can be clarified by revisions in the
13 regional and TMI program office procedures, and those
14 revisions are under way at the present time,
15 particularly with respect to the matters of whether the
16 region views their role as making totally independent
17 recommendations of the Licensee. We believe that was --
18 rather than just overseeing the Licensee.

19 We believe that was just a case of not putting
20 the proper words in the regional procedures. Indeed,
21 the region did have the same understanding as the NRC
22 headquarters procedures, which are also used by the
23 region.

24 COMMISSIONER AHEARNE: I was wondering in that
25 particular case whether it wasn't a case of the region

1 not yet being brought up to the conclusions that the
2 headquarters had reached, since the headquarters of the
3 Commission had been discussing that for many months and
4 I thought reached some conclusions, and the regional
5 plan just didn't seem to have caught up to it.

6 MR. GRIMES: I believe the region understood
7 the concept, but I don't believe they had the
8 sensitivity to --

9 COMMISSIONER AHEARNE: To put it into words.

10 MR. GRIMES: To put it into words.

11 COMMISSIONER AHEARNE: The last question I
12 have, the gentleman from PEMA, Mr. Belser, mentioned
13 that he had sent two letters, I think he said through
14 FEMA, requesting an NRC position on the question of what
15 kind of dosimetry ought they to have. And he used the
16 opportunity to say that he had still not gotten an
17 answer.

18 Have those letters passed through FEMA to us?
19 Are we answering them?

20 MR. GRIMES: I don't recall those specific
21 letters. We do have some guidance that was developed by
22 an inter-agency task force, which was published as a
23 FEMA document.

24 Perhaps we ought to note at this point that we
25 do have FEMA regional representation here. I doubt that

1 they would have knowledge of that.

2 COMMISSIONER AHEARNE: Well, obviously I
3 wanted to use the opportunity to suggest that someone
4 respond to Mr. Belser.

5 MR. GRIMES: Commissioner Ahearne,
6 specifically the two letters referred to by Mr. Belser
7 were sent directly to FEMA, the Federal Emergency
8 Management Agency. There was, as I recollect -- I have
9 seen a reported response by FEMA, although it likely was
10 not very definitive. And I will allow the FEMA
11 representative to comment further.

12 MR. CANARD: Good afternoon. My name is
13 Richard Canard, from FEMA Region III in Philadelphia.

14 As Mr. Gray just mentioned, the letters have
15 been sent to FEMA headquarters. They were not passed on
16 to the NRC, so the blame cannot be put at that
17 particular level.

18 Some preliminary guidance has come back from
19 headquarters on this issue. However, it is still under
20 discussion between the region and headquarters and that
21 has not come back to the Commonwealth at this time.

22 COMMISSIONER AHEARNE: Mr. Gray, you're right,
23 it was not very definitive.

24 MR. GRIMES: I think I should note also that
25 the Staff has explicitly set forth its position in the

1 Susquehannah proceeding in a submittal to the Licensing
2 Board which was provided to all parties, including the
3 State of Pennsylvania.

4 COMMISSIONER AHEARNE: And that was --

5 MR. GRIMES: Essentially the same position the
6 Staff has taken in this proceeding, that two dosimeters
7 combined with an administrative recordkeeping system is
8 adequate, although it is desirable to have additional
9 film badges or TLD's.

10 CHAIRMAN PALLADINO: All right, thank you.
11 Any other questions?

12 COMMISSIONER GILINSKY: Yes, I have some
13 questions on -- I'd like to continue on the emergency
14 preparedness plant. The emergency operations facility
15 for this plant is at the visitors center, which is quite
16 close to the plant, so that if there is a release that
17 facility itself might have to be evacuated.

18 Our guidance on this point is that if a
19 utility has such a center within ten miles which is
20 unprotected, then they need to have a backup in the 10
21 to 20-mile ring. Now, there is a backup for TMI-1
22 somewhere nearby, in the two to three-mile sphere -- I
23 mean circle. And I gather that it is a temporary backup
24 and there are plans for another facility, possibly 40
25 miles away.

1 What is your reaction to this situation, which
2 doesn't meet our guidance?

3 MR. GRIMES: I guess we will be reviewing
4 that. We have found that the designation of the current
5 EOF -- and it is in the process of being moved to the
6 training center rather than the visitors facility, but
7 the same --

8 COMMISSIONER GILINSKY: But very close.

9 MR. GRIMES: The current position with respect
10 to all operating plants is that this sort of facility is
11 adequate until we have reviewed the final emergency
12 response facilities and determined that they're --

13 COMMISSIONER GILINSKY: The plans for the
14 final ones don't seem to be in line with our guidance.
15 It is not a matter of schedule. They're not pointed in
16 that direction.

17 MR. GRIMES: That is correct, and the Licensee
18 is aware of that and is going to make arguments to us to
19 try and convince us that we should make an exception to
20 that guidance. And we will have to hear those
21 arguments, and absent --

22 COMMISSIONER GILINSKY: Are there new
23 requirements against which one can measure his
24 performance, or is it strictly a matter of negotiating
25 with the emergency planning office?

1 MR. GRIMES: We have guidance published.

2 COMMISSIONER GILINSKY: But they don't meet
3 the guidance.

4 MR. GRIMES: And we have under consideration
5 some requirements for these facilities, which would
6 include the items that you mentioned.

7 COMMISSIONER GILINSKY: But there are no
8 requirements at this point against which to measure the
9 situation at this point.

10 MR. GRIMES: Except the ability of the
11 emergency operations facility to perform its intended
12 function, which is encompassed in our regulations. It
13 must be an emergency operations facility and it must
14 perform certain functions.

15 COMMISSIONER AHEARNE: Very briefly, Mr.
16 Grimes, have you put it out to the Licensee that even if
17 we don't have explicit regulations, that that particular
18 issue has been discussed several times in the past year
19 at the Commission level and the table that you referred
20 to was something that the Commission twice to my
21 recollection had specifically addressed and endorsed?
22 And so it is certainly something that's an issue the
23 Commission has some speaking familiarity with, so that
24 the concept of this backup in 10 to 20 miles is not a
25 casually come up with Staff position.

1 MR. GRIMES: I believe that has been pointed
2 out.

3 COMMISSIONER GILINSKY: And it has no effect?

4 MR. GRIMES: I don't know. I can't speak for
5 the Licensee as to what effect.

6 COMMISSIONER GILINSKY: Let me return to a
7 point I was addressing earlier. I want to make sure I
8 get a clear answer. Is it your view that there was or
9 was not indeed a requirement or a need for the Licensee
10 to report the VV incident to the NRC, and do you feel
11 that there is no action that needs to be taken on the
12 license now or should have been taken when you found out
13 about it, that the certification had been false?

14 MR. GOLDBERG: The position that the Staff
15 took in its testimony at the hearing was that there was
16 not a specific requirement that the Licensee inform us
17 of that, however the Licensee should have informed us of
18 that incident as background material which we would have
19 considered in evaluating Mr. VV's certification.

20 I would now like to have Mr. Thompson further
21 address that question.

22 MR. THOMPSON: Commissioner Gilinsky, if we
23 had known that we would not have issued a renewal
24 license. It is my understanding that VV right now is
25 not assigned to the Unit 1 staff and is not in a

1 licensed position, does not hold a license.

2 COMMISSIONER GILINSKY: Does not hold a
3 license?

4 MR. THOMPSON: Does not hold a license.

5 COMMISSIONER GILINSKY: But let me ask you
6 this. What did the Staff do when it discovered that the
7 license had been false obtained?

8 MR. THOMPSON: I don't know the answer to that
9 question specifically.

10 COMMISSIONER GILINSKY: Could you provide it
11 at some future point?

12 MR. THOMPSON: I'll provide it for the
13 record.

14 COMMISSIONER GILINSKY: Thank you.

15 CHAIRMAN PALLADINO: Are there any more
16 questions?

17 (No response.)

18 CHAIRMAN PALLADINO: Earlier during the
19 presentation by GPU Nuclear, the request was made that
20 they be given an opportunity for some closing comments.
21 I have polled the Commission and the polling changed as
22 the hour got later, and the conclusion was that it's
23 much too late to go back, and so we will forego the
24 closing comments.

25 I should point out that our record here on the

1 startup of TMI-1 will be kept open until November 30th
2 for the purpose of receiving the parties' comments, if
3 any, on the public views expressed in tonight's public
4 meeting. In addition, any written comments received
5 during the public meeting this evening will also be
6 given to the parties for their review and comment, if we
7 get any.

8 As I indicated in my opening remarks, the
9 Commission does plan to make its decision on the
10 continued immediate effectiveness of the shutdown order
11 on TMI-1 by December 10th. Even if that decision is
12 favorable, TMI-1 would not be allowed to restart until
13 the steam generator tubes have been repaired and the
14 conditions set by the Staff have been met.

15 Let me take this opportunity to thank all of
16 the parties that participated in this meeting. And I
17 would ask if my fellow Commissioners have any closing
18 comments?

19 (No response.)

20 CHAIRMAN PALLADINO: We will stand adjourned.

21 (Whereupon, at 6:25 p.m., the meeting was
22 adjourned.)

23

24

25

NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the

in the matter of: PUBLIC MEETING

Date of Proceeding: November 9, 1982

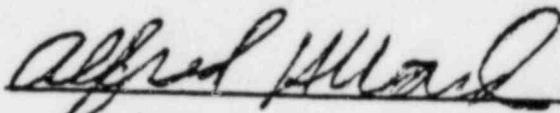
Docket Number: _____

Place of Proceeding: Harrisburg, Pa.

were held as herein appears, and that this is the Original transcript thereto for the file of the Commission.

Alfred H. Ward

Official Reporter (Typed)



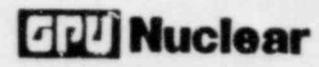
Official Reporter (Signature)

EMERGENCY PLANNING EFFORTS

- STATE AND LOCAL PLANS
- TWO MAJOR "GRADED" DRILLS
- EMERGENCY SIREN SYSTEM
- DISTRIBUTION OF BROCHURES

STAFFING OF EOP

- QUALIFIED PERSONNEL REGARDLESS OF OUTCOME OF ISSUE UNDER APPEAL



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CONSTRUCTION
F. F. MANGANARO**

- MAINT. & CONST. TMI-1
- MAINT. & CONST. OYSTER CREEK

TECHNICAL RESOURCES

SUMMARY AS OF 11/1/82

A ... TECHNICAL PROFESSIONALS 568
 B ... PROFESSIONAL EXPERIENCE YEARS 6740
 C ... NUCLEAR EXPERIENCE YEARS 4501
 D ... SENIOR REACTOR OPERATOR LICENSE
 OR EQUIVALENT 123

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**EXECUTIVE
 VICE PRESIDENT**

A ... 2
 B ... 51
 C ... 43
 D ... 1

CHAIRMAN GORB

A ... 1
 B ... 31
 C ... 26
 D ... 1

**VICE PRESIDENT
 OYSTER CREEK**

A ... 40
 B ... 42
 C ... 255
 D ... 20

A ... 35
 B ... 344
 C ... 284
 D ... 20

**VICE PRESIDENT
 TMI-1**

**DIRECTOR
 TMI-2**

A ... 34
 B ... 315
 C ... 215
 D ... 12

**VICE PRESIDENT
 TECHNICAL
 FUNCTIONS**

A ... 297
 B ... 3491
 C ... 2051
 D ... 34

**VICE PRESIDENT
 NUCLEAR
 ASSURANCE**

A ... 86
 B ... 1249
 C ... 1035
 D ... 25

**VICE PRESIDENT
 ADMINISTRATION**

**VICE PRESIDENT
 COMMUNICATIONS**

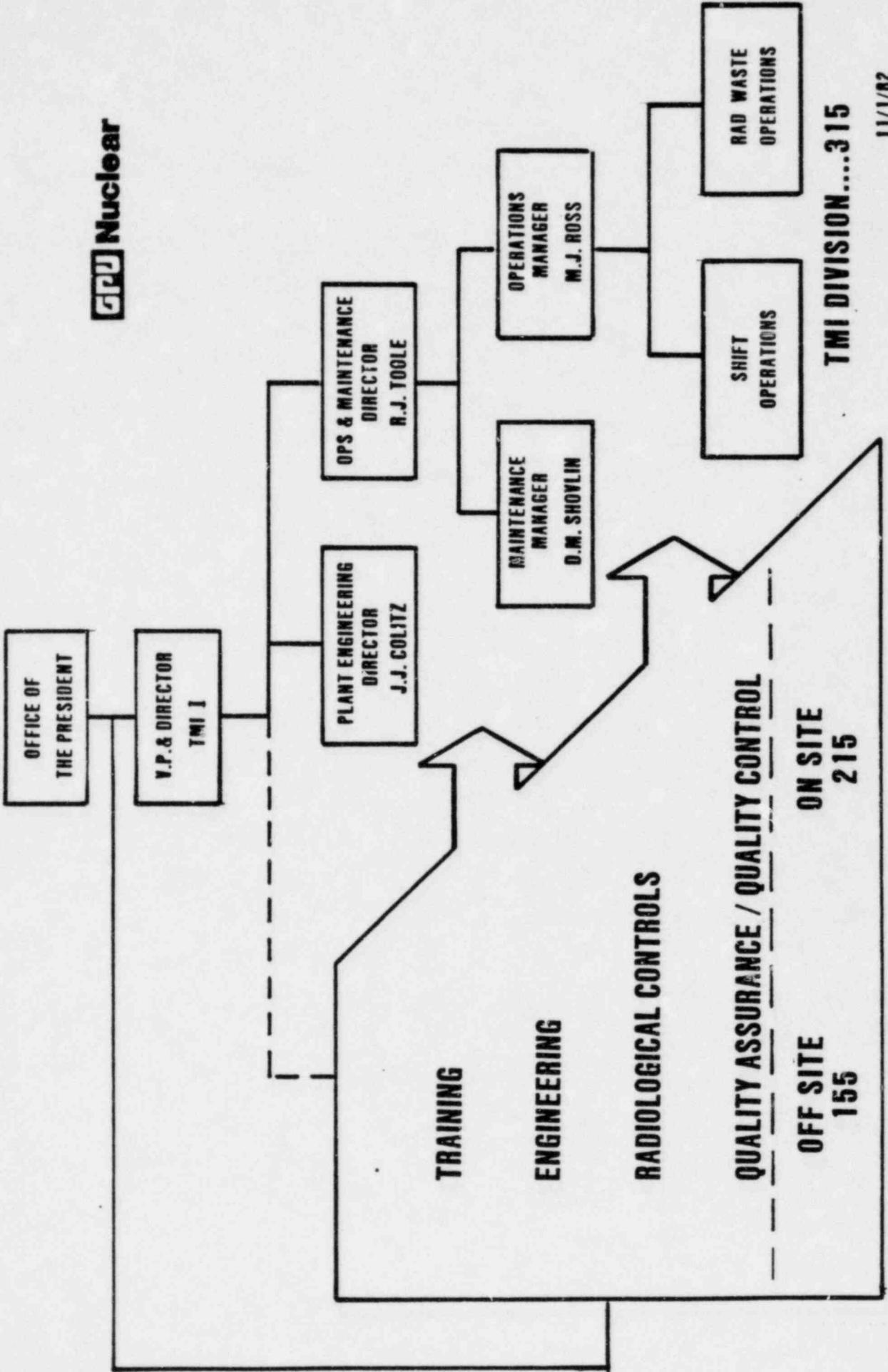
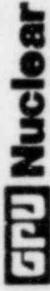
**VICE PRESIDENT
 RAD. & ENVIRON.
 CONTROLS**

A ... 53
 B ... 472
 C ... 385
 D ... 6

**VICE PRESIDENT
 MAINTENANCE &
 CONSTRUCTION**

A ... 20
 B ... 367
 C ... 207
 D ... 4

ORGANIZATION STRUCTURE FOR OPERATIONAL ACTIVITIES



INTERNAL RESOURCES FOR OPERATIONAL ACTIVITIES

<u>FUNCTION</u>	<u>FOUR YEAR DEGREES</u>	<u>SUPV. / TECH. / OTHERS</u>
TMI-1 DIVISION	35	280
ENGINEERING	152	27
RADIOLOGICAL CONTROLS	16	44
QA/QC/IOSRG/EMERG. PREP.	25	26
TRAINING	19	16
OTHER	11	34
TOTAL	258	427

11/1/82

LICENSED OPERATING PERSONNEL

+ WILL MEET NUREG 0737 STAFFING REQUIREMENTS 2 SRO / 2 RO / 1 STA PER SHIFT

	<u>SRO</u>	<u>RO</u>	TOTAL LICENSES
PRESENTLY	16 (3 STAS)	13	29
AWAITING NRC EXAM RESULTS	2 *	4	33
SCHEDULED FOR NRC EXAMS FEB. 1983	<u>1 *</u>	9	
TOTAL	19		42

* HOLD RO LICENSES

+ ALL EXAMINED BY NRC USING REVISED EXAMINATION PROCEDURES.

+ ALL TRAINED ON REVISED PROCEDURES THAT REFLECT PLANT MODIFICATIONS.

CONFIDENCE IN COMPETENCE OF OPERATORS

- + TRAINING STAFF (3SRO/1 RO) AND FACILITIES**

- + EXPANDED AND STRENGTHENED TRAINING PROGRAM RIGOROUSLY RUN**

- + STRICT CRITERIA FOR CERTIFICATION (INITIAL AND REQUALIFICATION).**

- + INCREASED AND IMPROVED USE OF SIMULATOR.**

- + POSITIVE ATTITUDE OF PERSONNEL**

11/1/82

12/81

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C&R (Natalie)

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Meeting Title:

Oral Presentations on
Imi - 1 Restart

MEETING DATE:

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