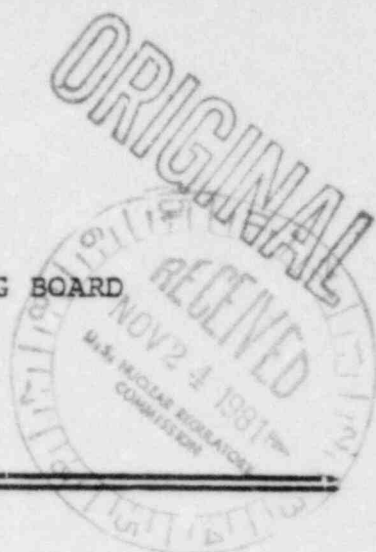


NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



In the Matter of: :
METROPOLITAN EDISON COMPANY : DOCKET NO. 50-289
(Three Mile Island Unit 1) : (Restart)

DATE: November 20, 1981 PAGES: 24,907 - 25,055

AT: Harrisburg, Pennsylvania

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

Docket No. 50-289
(Restart)

Honors Suite
Harrisburg II Building
333 Market Street
Harrisburg, Pennsylvania

Friday, November 20, 1981

The hearing in the above-entitled matter convened
at 9:02 a.m., pursuant to notice.

BEFORE:

GARY MILHOLLIN, Special Master,
Atomic Safety and Licensing Board

On behalf of the Licensee, Metropolitan Edison Company:

ERNEST L. BLAKE, JR., Esq.
RONNIE GOTTLIEB, Esq.
DEBORAH B. BAUSER, Esq.
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N.W.
Washington, D. C. 20036

On behalf of the Commonwealth of Pennsylvania:

ROBERT ADLER, Esq.
Assistant Attorney General
505 Executive House
Harrisburg, Pennsylvania

1 APPEARANCES (Continued):

2 On behalf of Mr. and Mrs. Norman Aamodt:

3 JOHN CLEWETT, Esq.
4 The Christic Institute
5 1324 North Capitol Street
6 Washington, D.C. 20002

7 On behalf of Three Mile Island Alert:

8 LOUISE BRADFORD, Esq.
9 JOANNE DOROSHOW, Esq.
10 1011 Green Street
11 Harrisburg, Pennsylvania 17102

12 On behalf of the NRC Regulatory Staff:

13 LUCINDA LOW SWARTZ, Esq.
14 JACK RO. GOLDBERG, Esq.
15 Office of the Executive Legal director
16 U.S. Nuclear Regulatory Commission
17 Washington, D.C.

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C O N T E N T SWITNESS:DIRECT CROSS REDIRECT RECROSS BOARD CROSS
ON BOARD

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 By Mr. Clewett 24,928
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 By Mr. Goldberg 25,035
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|---------------|-------------------|--------------------|
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| Licensee 72 | 24,927 | 24,928 |
| Licensee 73 | 24,927 | 24,928 |
| Licensee 74 | 24,992 | |
| Licensee 75 | 24,994 | |
| Licensee 76 | 25,009 | |

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C O N T E N T S

E X H I B I T S (Cont'd)

| <u>NUMBER</u> | <u>IDENTIFIED</u> | <u>IN EVIDENCE</u> | <u>REJECTED</u> |
|---------------|-------------------|--------------------|-----------------|
| Licensee 77 | 25,010 | | |
| Licensee 78 | 25,014 | | |
| Licensee 79 | 25,015 | | |
| AAMODT 11 | 25,034 | | 25,034 |
| Staff 24 | 25,036 | | |
| Staff 25 | 25,036 | | |

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1 PROCEEDINGS

2 (9:02 a.m.)

3 JUDGE MILHOLLIN: The hearing will come to order.
4 My understanding is that the parties have conferred on the
5 subject of the order of witnesses for the balance of today
6 and tomorrow. Is there a report at this time?

7 MR. CLEWETT: Yes, Judge Milhollin. I managed
8 eventually to get in touch with all of the witnesses we will
9 be presenting; Dr. Molholt unfortunately has scheduling
10 conflicts today and would not be able to appear until
11 tomorrow afternoon.

12 We thought that Mr. Williams was going to be going
13 out of town and, in fact, that had been his plans. We
14 prevailed upon him to change those plans. He will be
15 available today for cross examination.

16 Professor Holzinger will, in all likelihood, not
17 be able to appear either today or tomorrow. I understand
18 there is some personal reason why that is not going to be
19 possible. So what we would suggest doing to the extent it
20 is possible -- and I have been in contact with Mr. Goldberg
21 about this and made an effort to reach Mr. Blake last night
22 which was ultimately not successful in this regard, although
23 I understand there was some other back-and-forth telephone
24 communication -- would be if workable, to go ahead with Mr.
25 Williams today after Dr. Long, and then have the witnesses

1 that the staff referred to yesterday on Saturday morning,
2 following which would be Professor Molholt.

3 JUDGE MILHOLLIN: I would like to hear the other
4 parties' views on this proposal.

5 MR. BLAKE: Judge Milhollin, my views would be
6 considerably condensed now from what I was prepared to say,
7 based on Mr. Clewett's representations this morning that he
8 attempted to get in touch with me last night and was unable
9 to.

10 I now understand with some confidence that the
11 intervenor's witness who will be available today is Mr.
12 Williams. When we discussed availability of witnesses
13 yesterday during the break, as I reported on the record to
14 you yesterday, it was understood that intervenor's witnesses
15 who would be available today would be either or both
16 Professors Molholt and Holzinger. Therefore, I devoted last
17 night to preparing for either of both of those witnesses.

18 Rather than lose valuable hearing time, I am
19 prepared to go ahead with Mr. Williams today, but it may
20 require a short break after Dr. Long's testimony to allow me
21 to put together and arrange papers which will be necessary
22 for my examination of Mr. Williams.

23 With respect to the availability or unavailability
24 or necessity to schedule Dr. Molholt only for tomorrow
25 afternoon or Dr. Holzinger for some unspecified time in the

1 future, I would only observe that all of the parties in this
2 proceeding have made an effort to this point in time in my
3 view to be ready to proceed to use this time. It has
4 required considerable effort; we have brought witnesses in
5 from out of state and have made them available so we would
6 not lose time.

7 As I understand it, these gentlemen are from the
8 immediate area, and I would be remiss, I believe, if I did
9 not state that I do not believe we should revolve around one
10 individual or a particular party's schedules for scheduling
11 witnesses. I think it should be held to the schedule which
12 has been defined by the parties unless there are
13 extraordinary, well-defined and accepted reasons why
14 witnesses are not available.

15 (Discussion off the record.)

16 MS. BRADFORD: Judge Milhollin, TMIA at this point
17 has no comment. I probably have the easiest job; I live so
18 close, so that scheduling is only a problem if at the last
19 minute witnesses are changed and I have to prepare for them
20 at the very last minute. But other than that, I will go
21 along with whatever the other parties decide.

22 MR. ADLER: My major concern at this point is that
23 we do not have enough witnesses today and tomorrow to use up
24 all the hearing time. Perhaps we can use the time
25 productively discussing which additional witnesses we are

1 going to require during the rest of the proceeding to use up
2 some of that time.

3 MR. GOLDBERG: It is certainly my hope that we can
4 use all of today and all of tomorrow productively for
5 witnesses, and the staff is going to do whatever it can to
6 see that that is the case.

7 I would like to make some comments with respect to
8 this scheduling matter. The staff as of yesterday when we
9 concluded the hearing also was under the impression that
10 Professors Molholt and Holzinger would be appearing today
11 after Dr. Long. As did the licensee, the staff used its
12 preparation time in preparing for Dr. Long and Professors
13 Molholt and Holzinger. We did not expect that Mr. Williams
14 would be appearing today, and consequently, did not prepare
15 for Mr. Williams.

16 It was relatively late last night when we learned
17 of the scheduling problem and the possibility that Mr.
18 Williams would be appearing today.

19 In the interest of having the hearing going
20 forward as expeditiously as possible and not losing any
21 valuable hearing time, the staff does not have any objection
22 to Mr. Williams appearing today. We will do what we have to
23 between now and Mr. Williams' appearance today to be
24 prepared for Mr. Williams. And we certainly have no
25 objection to the licensee's request for a reasonable break

1 for their preparation for Mr. Williams.

2 We are certainly unhappy about this scheduling
3 problem. It seems that the Aamodts should have been
4 following the pace of the witnesses we had had, as well as
5 the other parties, and should have been able to be in touch
6 with their witnesses before last night to find out whether
7 they would have these scheduling problems, and therefore,
8 should have given us more notice than a call late the night
9 before witnesses were expected to appear.

10 The late notice that we got caused us to call one
11 of our witnesses late last night and inquire about his
12 availability and the availability of other staff witnesses,
13 and needless to say, this was a great inconvenience.

14 As I understand it now, we will proceed today with
15 Dr. Long and follow Dr. Long by Mr. Williams. Tomorrow
16 afternoon, Professor Molholt can be here; that leaves us
17 tomorrow morning. The staff is willing to change the order
18 of presentation of its witnesses and do some of them out of
19 order in order to use tomorrow morning productively for
20 testimony. And therefore, we are willing to bring up one or
21 more of our witnesses so that they can appear tomorrow
22 morning.

23 We would propose that we contact Mr. Resner and
24 have him available for 9:00 o'clock tomorrow morning, if I
25 can get an estimate from the parties as to the cross

1 examination times that they will need. If it appears that
2 based on those estimates we can put on another staff
3 witness, we would propose to have Mr. Crocker also here
4 tomorrow morning to go on after Mr. Resner.

5 I make this offer on the condition that if we do
6 bring Mr. Resner and Mr. Crocker, they will appear and their
7 cross examination will be completed tomorrow before
8 Professor Molholt takes the stand. If that is acceptable to
9 all the parties, we will then endeavor to contact Mr. Resner
10 and Crocker immediately and report back as to their
11 availability.

12 JUDGE MILHOLLIN: With respect to today, does the
13 staff have any plans for today?

14 MR. GOLDBERG: As far as staff witnesses?

15 JUDGE MILHOLLIN: Yes.

16 MR. GOLDBERG: No. Based on the second -- based
17 on my conversations with Mr. Clewett last night which
18 confirmed that Mr. Williams indeed could be available today,
19 it was my estimate that by the time we finished Dr. Long,
20 that Mr. Williams would probably consume the rest of the day.

21 My best estimate was then that we would not need
22 any staff witnesses until tomorrow morning.

23 JUDGE MILHOLLIN: How much cross examination do
24 you anticipate having for Mr. Williams?

25 MR. GOLDBERG: Well, I have perhaps two hours of

1 cross examination.

2 JUDGE MILHOLLIN: For Mr. Williams you have two
3 hours?

4 MR. GOLDBERG: Yes, yes, I do. I am not going to
5 be cross examining him first, and so I would imagine that
6 that would be considerably shortened, depending upon in
7 particular the licensee's cross examination.

8 JUDGE MILHOLLIN: Mr. Blake, how long do you think
9 you will take for Mr. Williams?

10 MR. BLAKE: I expect that I could consume several
11 hours with Mr. Williams.

12 Judge Milhollin, I have to observe here that with
13 respect to witnesses like Mr. Williams or Professor
14 Holzinger, for example, that they make a lot of allegations
15 where the licensee is required to prove the negative, and it
16 is not so easy to do. And cross examination is very
17 important and preparation time for it. I cannot take
18 lightly the types of accusations and allegations which are
19 made in those pieces of testimony, nor can I take lightly my
20 need for cross examination.

21 JUDGE MILHOLLIN: I am not suggesting you take it
22 lightly. So you are estimating several hours. By several
23 hours you mean more than two?

24 MR. BLAKE: It could very well be more than two.
25 I do not know, I have never met Mr. Williams. I do not know

1 what sort of answers I will get.

2 JUDGE MILHOLLIN: Does TMIA plan to cross examine
3 Mr. Williams?

4 MS. BRADFORD: No.

5 JUDGE MILHOLLIN: No. Commonwealth?

6 MR. ADLER: I might; it depends entirely on the
7 licensee's cross examination.

8 JUDGE MILHOLLIN: Very well. It looks as if we
9 can -- well, it does not look as if it would be necessary
10 for the staff to arrange any further witnesses for today. I
11 think I should observe that my impression is that -- I think
12 it is an accurate impression --. Let me say the information
13 I have is that at least as early as the beginning of this
14 week, if not last week, it could be foreseen that the
15 Aamodts witnesses would be reached today.

16 Certainly, that was obvious the day before
17 yesterday, and it was obvious yesterday. I do not think it
18 is permissible for the Aamodts to only contact their
19 witnesses the evening before they are scheduled to appear,
20 and then announce to everyone in the late hours of the
21 evening that there are problems because the witnesses have
22 other commitments.

23 That is simply not a permissible response. I am
24 going to ask you now to explain why the witnesses could not
25 be available in their scheduled order.

1 MR. CLEWETT: It was -- it had been our estimate,
2 based on the length of time that cross examination of the
3 licensee witnesses was taking, that if indeed our witnesses
4 came on before the end of this week, they would most likely
5 be on on Saturday.

6 The possibility was apparent to us that they might
7 come on as early as this afternoon. Several days ago we
8 mentioned this possibility to Professors Molholt and
9 Holzinger. It was my impression at that time that there was
10 not any problem with this. There arose two
11 misunderstandings in this regard. One was that Professor
12 Molholt's schedule was such that Thursday was the only day
13 that he could not appear. It later turned out that Friday,
14 in fact, was the day when he could not appear.

15 A further misunderstanding which was my fault was
16 that Mr. Williams' schedule was such that he could not
17 appear on Saturday. It later developed that Saturday
18 normally would be his -- the best day for him to appear, and
19 then, however, we did not nail down with him the possibility
20 that he would be appearing this weekend and should have,
21 because it developed that he had plans to go away.

22 We indeed should have been keeping closer tabs on
23 the schedules of our witnesses to avoid putting everyone in
24 this position, and I would tender my apologies to the
25 parties and to the Special Master.

1 JUDGE MILHOLLIN: In response, I have two
2 observations. First, I do not think that your
3 interpretation of the time at which these witnesses could be
4 reached under the pace of the case is in accord with any
5 plausible view of the facts. I think the interpretation is
6 unreasonable based on facts which are obvious, wrong ones.

7 The second observation I would make is that the
8 unavailability of the witnesses is to a large extent caused
9 by a neglect of the Aamodts to take reasonable precautions.

10 There are two possibilities; either I can rule
11 that since the witnesses are not available at the scheduled
12 time, we shall not hear them. Or, I can indulge in a
13 discretionary assumption that we will do the best we can to
14 accommodate what I think is a lapse in the ordinary
15 responsibilities parties have.

16 So I agree that we will hear Mr. Williams today
17 and Dr. Molholt Saturday afternoon, but since Dr. Holzinger
18 is not available this week and since that creates a
19 considerable inconvenience, it may be that I shall
20 eventually decide that we will not hear from Dr. Holzinger.
21 That is, if we do hear from him, it will simply be because
22 it is convenient to do so at some point.

23 MR. GOLDBERG: I would appreciate your approval of
24 my suggestion that if the staff brings up Mr. Pesner and Mr.
25 Crocker tomorrow, that we have assurance that they will be

1 taken before Professor Molholt, so that if it is necessary
2 to defer a witness or to carry someone over through the
3 weekend break, it will be Professor Molholt and not one of
4 the staff's witnesses.

5 JUDGE MILHOLLIN: Yes, I accept that suggestion.

6 Also, I think this might be a good time for me to
7 indicate to you a concern that I have about the scheduling
8 of the witnesses from whom we are not now -- for whom we do
9 not now have prepared testimony. There are a number of
10 those witnesses. The time at which they will appear is much
11 closer to today than most of you seem to recognize.

12 I think at some time, either today or tomorrow, we
13 should arrange for a discussion among the parties as to the
14 order of these witnesses, with respect to the particular
15 issues, factual issues, that the witnesses shall be called
16 to testify on. I assume we are not simply going to call
17 them alphabetically. I think that is very important and we
18 should get busy on it.

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1 MR. BLAKE: To the extent Mr. Williams does not
2 fill today, since it appears there could be no other
3 witnesses available, as soon as the record -- the hearing is
4 completed today, could the parties get together and attempt
5 to agree among themselves on both the numbers of those
6 individuals and, subject to reasonable availabilities of
7 those individuals, a prospective order and make that
8 proposal to you.

9 JUDGE MILHOLLIN: I hope when you do that you will
10 attempt to group the witnesses in some way on which all of
11 you have an understanding. That is, that certain witnesses
12 will be called on certain subjects, although I suppose since
13 some of the witnesses know about things which relate to
14 differential factual issues, it may be necessary to ask them
15 different question while they are on the stand.

16 But still, I would urge you to think about some
17 logical grouping of the witnesses. I must know when Mr. YY
18 will be called, since I control communications with Mr. YY.
19 So I assume you will include Mr. YY in your discussions.

20 Also, I urge you to remember that some of the
21 witnesses may require subpoenas, although I think perhaps
22 that fact could be discussed with the licensee, and the
23 licensee may be able to shed some light on the question
24 which witnesses will require subpoenas. My understanding
25 is that Mr. C and Mr. W will not require subpoenas, nor

1 will Mr. VV require a subpoena. But you should give me some
2 notice for any witness who does require a subpoena.

3 MR. GOLDBERG: Judge Milhollin, two additional
4 points. One is that as I understand it from Mr. Clewett
5 last night, Mr. Williams has corrected his deposition and
6 signed it, and forwarded it to the court reporter. And
7 further, there were only two minor corrections to that
8 deposition.

9 We have not received the official version of that
10 deposition, but as I understand it, Mr. Clewett has
11 suggested that we can proceed with Mr. Williams; we can note
12 on the record what his two corrections were and get him to
13 state under oath that he has signed the deposition with
14 those two corrections. And from my point of view, I think
15 it would then be acceptable to proceed and we would then be
16 able to use his deposition as prior testimony under oath and
17 officially recognized as such, if it is necessary to use
18 that deposition. And I guess we would need to find out
19 whether that was acceptable to the licensee, also.

20 The second matter I had was an estimate from the
21 parties on their cross examination times for staff witnesses
22 Resner and Crocker.

23 JUDGE MILHOLLIN: Let's take a break for a few
24 minutes so that you can discuss that subject with the other
25 parties. I think it would be more fruitful for you to

1 discuss that off the record.

2 (A short recess was taken.)

3 JUDGE MILHOLLIN: On the record.

4 MR. BLAKE: Judge Milhollin, licensee's next
5 witness is Dr. Robert L. Long, who previously has appeared
6 as a witness in this proceeding and previously has been
7 sworn.

8 Whereupon,

9 DR. ROBERT L. LONG

10 was recalled as a witness by counsel for the Licensee and,
11 having been previously duly sworn, took the stand and was
12 examined and testified further as follows:

13

14 JUDGE MILHOLLIN: Very well, Dr. Long, you will
15 consider yourself still under oath.

16 THE WITNESS: yes, sir.

17 DIRECT EXAMINATION

18 BY MR. BLAKE: Dr. Long, I show you a copy of a
19 document entitled "Licensee's Testimony of Robert L. Long"
20 dated 11/03/81, and I note that this document has cross-outs
21 on the first page where the words used to appear "Samuel L.
22 Newton, and Nelson V. Brown." The document is comprised of
23 some 29 pages, and I ask whether or not this document,
24 particularly the parts of the document underlying your name
25 and without cross-outs was prepared by you or under your

1 direct supervision.

2 A Yes, sir.

3 Q Do you have any corrections which you would make
4 to this document?

5 A Yes, I do. I have a few corrections on page 23.
6 On page 23, the paragraph that is about two-thirds of the
7 way down the page beginning with the number "Thirty-six
8 other individuals..." the following correction should be
9 made to that paragraph: the 36 should be 66, so that the
10 first sentence reads, "Sixty-six other individuals took the
11 RWP training course and the test on April 28."

12 There should then be a sentence inserted which
13 reads as follows: --

14 JUDGE MILHOLLIN: Inserted where?

15 THE WITNESS: After the first sentence.

16 JUDGE MILHOLLIN: Very well.

17 THE WITNESS: It reads as follows: "Twenty-five
18 individuals took the April 28 RWP session, given by
19 instructor Watson."

20 JUDGE MILHOLLIN: Twenty-five individuals took the
21 -- ?

22 THE WITNESS: "...April 28 RWP session given by
23 instructor Watson." And then the next sentence should read
24 "Two persons failed the test out of the 66."

25 BY MR. BLAKE (Resuming)

1 Q Excuse me, are you adding another 66 there?

2 A Yes. So I think it does not get confused with the
3 25.

4 JUDGE MILHOLLIN: So it would read, "Two persons
5 failed the test, of the 66."

6 THE WITNESS: Yes.

7 And then the next sentence should read -- well,
8 just change 48 to 49; the highest grade on the test was 49
9 out of 50, which two persons received.

10 Those are the only changes.

11 BY MR. BLAKE (Resuming)

12 Q With those changes, Dr. Long, do you adopt this
13 testimony or this document as your testimony in this
14 proceeding?

15 A Yes, I do.

16 MR. BLAKE: Judge Milhollin, I should observe that
17 in keeping with what we did with Mr. Newton and Mr. Brown
18 when they were here, we have gone through this document and
19 lined out those which have already been sponsored, so that
20 this document is the testimony, unlined out, of Dr. Long.

21 We have also, in keeping with the tact taken when
22 Mr. Brown and Mr. Newton were here, changed the testimony to
23 refer rather than to attachments, to licensee exhibits,
24 which we plan to introduce right after Dr. Long's testimony
25 is inserted in the record.

1 So with those observations, I would ask that this
2 document entitled "Licensee's Testimony of Robert L. Long"
3 dated 11/03/81 be accepted as the testimony of Dr. Long and
4 be physically incorporated into the record just as though
5 read.

6 JUDGE MILHOLLIN: It will be so received and bound.

7 (The document entitled "Licensee's Testimony of
8 Robert L. Long," dated 11/03/81 follows:)

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
METROPOLITAN EDISON COMPANY)
(Three Mile Island Nuclear)
Station, Unit No. 1))

Docket No. 50-289 SP
(Restart)

LICENSEE'S TESTIMONY OF
ROBERT L. LONG, ~~SAMUEL L. NEWTON,~~
AND NELSON D. BROWN

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BY MR. NEWTON

I. Nature of Testimony

My name is Samuel L. Newton, and I am the Operator Training Manager at TMI. While this represents a change in title since my earlier appearance before the Licensing Board in this proceeding, my responsibilities remain unchanged, and are described in detail in ¶ 174 of the August 27, 1981 Partial Initial Decision (PID). My qualifications also were the subject of previous testimony, and are described in the PID at ¶ 175.

My testimony is directed at Licensee's administrative practices for licensed operator exams since the TMI-2 accident. I will address the practices of the TMI Training Department prior to the recent discovery of cheating by two operators on the NRC examinations as well as the other training administrative issues. With me is Nelson D. Brown, who is the Supervisor of Licensed Operator Training. Mr. Brown's statement of qualifications is provided (Attachment 7). While I am familiar with training practices since the TMI-2 accident, I did not arrive at TMI until April of 1980, and thus cannot directly address administrative practices during 1979 and early 1980. Mr. Brown, however, has been in the TMI Training Department since 1977, and thus can answer questions on qualifying exams during the period prior to 1980. Also testifying on the subject of training administrative practices is Dr. Robert L. Long, the Director of GPU Nuclear's Training & Education

Department. Dr. Long's qualifications also have been previously submitted and discussed in this proceeding. See PID # 171.

BY DR. LONG

II. Training & Education Department Orientation Prior to July, 1981

Before discussing the operator examination procedures previously utilized by the TMI Training Department, I would like to focus briefly on the orientation which the Training & Education Department has given its instructors since the TMI-2 accident. In summarizing this program, I hope to clarify the administrative issues with which we have been concerned in the past year and a half.

The Training & Education Department deliberately considered the elements needed to provide our instructors an orientation towards our philosophy of training and education. An Instructor Development Program was then established last year at TMI. During this five day program, emphasis was placed upon (1) principles of good instruction, e.g. effective speaking, planning and conducting a training program, selecting media and materials, and preparation and use of lesson plans; (2) instructor performance, emphasized through "mock" performances analyzed by staff and participants for their effectiveness in meeting their stated objectives, presentation techniques, and use of visual aides; and (3) principles of testing and evaluation, through analysis of techniques for

determining effectiveness of instruction. Our principal goals in conducting this program were to provide a practical means of training instructors to become learning- and learner-oriented; to improve the quality of training by directing our instructors towards measurable, realistic training goals and clearly defined learning objectives; and to expand our instructors' understanding of training design, presentation and evaluation.

In the past, the focus of the Department has not been on methods for ensuring the security of our exam process through such means as instructing operators not to cheat on exams and 100 percent proctoring of examinations. In hindsight, this omission in instruction was clearly a mistake; however, I am reluctant to be too self-critical on this subject because the implicit understanding which I believe every member of our teaching staff has and had in the past is that cheating is totally unacceptable behavior and not only is not condoned, but is essentially incomprehensible in the context of training in preparation for seeking an NRC license to operate a nuclear power plant. I cannot overemphasize my certainty that the unspoken proposition that one was to do one's own work (unless an assignment was intended by its nature to involve working through problems with others) was not articulated because it was a second nature proposition, just as one probably does not tell factory workers not to steal parts from the assembly line. Today, with more "lessons learned" on this subject, and in order to safeguard the integrity of the teaching programs which

we have carefully and thoughtfully developed for our operators, emphasis will be placed on the integrity of exam administration. We understand that this is necessary in order for the NRC, the public and us to have confidence in the capability and integrity of our operators, to assure that the operator training program is a sound measure of individuals' readiness to serve as licensed operators, and for the benefit of operators who do not engage in misconduct.

BY MESSRS. NEWTON AND BROWN

III. Operator Training Administration Since the TMI-2 Accident

As discussed in Licensee's previous testimony on Training and reflected in the PID at ¶¶ 163-207, licensed operator training at TMI has undergone major revisions since the TMI-2 accident, with major organizational and staffing changes instituted within the TMI Training Department, as well as complete revisions made to the structure and content of the operator training programs. Essentially, operator training consists of "replacement" training, termed "Category IV" training because of its labor union classification, which is the program designed to train individuals who have not previously served as control room operators at TMI, and "requalification" training, which is the cyclic program that all licensed TMI operators must take each year in order to maintain their licenses. In addition, separate qualification and requalification requirements exist for new and requalifying senior reactor operators.

Since the accident, most of the changes which have taken place in the operator training program reflect substantive changes in materials taught, and the complete restructuring of the programs themselves, e.g., with the emphasis on classroom instruction, rather than self-study work in the RO and SRO replacement training programs. Less attention has been paid to training program exam administrative procedures. Nevertheless, the new operator training programs do include considerable administrative requirements applicable to each specific program.

The TMI-1 Replacement Operator Training Program Description (Attachment 1) and the TMI-1 Senior Reactor Operator Replacement Training Program Description (Attachment 2), approved in January and May of 1981, respectively, provide for record retention of training documents, including lesson plans, student handouts, completed OJT task sheets, oral exam summary sheets, exam keys, and completed exams and quizzes (written and oral), as well as other pertinent qualification records. Candidate progress reports are to be maintained and updated regularly during the course of the replacement and requalification programs. Moreover, these programs specifically require the Supervisor of Licensed Operator Training and the course instructors to evaluate the programs annually for, among other things, the adequacy of records, and to report their findings to the Manager of Training and the Manager of Operations at TMI-1.

The Licensed Operator Requalification Training Program Description (Attachment 3), was approved in July of 1981, and will be implemented when annual requalification training resumes. It includes similar provisions to those described above as well as other important administrative procedures. For example, training attendance requirements are very specifically delineated; closed-book written quizzes are required after each week of lectures; quiz administration and grading is specifically described; annually-required plant drill scenarios are required to be planned and approved by the Manager of Operations; and OJT requirements are specified in great detail. Of particular importance is the specification of written comprehensive exam administrative procedures, including maintenance of an exam question-and-answer file or "pool" from which exams are prepared. Emphasis is also placed on establishing a structure which will enable "consistency of questioning" while "minimizing possible compromise of examinations prior to administration." Attachment 3, at pp. 39.0-41.0. It is the intention of the Training Department to revise the RO and SRO replacement programs described above to ensure inclusion of similar administrative requirements, as applicable.

In evaluating Licensee's exam administrative practices since March of 1979, it is important to recognize that operator training programs and personnel have been continuously changing, resulting in the programs described above, and the current Training & Education Department. During this period of

time, Licensee has conducted at TMI the Operator Accelerated Retraining Program (OARP), which culminated in the "Kelly" comprehensive examinations in April of 1980, administered by Mr. Frank Kelly of PQS Corporation, a portion of which constituted the initial Category T exam, covering TMI-2 accident material. Following the OARP, requalification and initial qualification or replacement training has been ongoing, with the administration of the ATTS "mock" exams and the NRC's exams in April of 1981. Numerous makeup training sessions and tests have also been administered for individuals whose oral or written exam results were initially unsatisfactory, e.g., Category T makeup exams. Formal procedures for exam and quiz administration during these programs did not exist. We have attempted to describe below, to the best of our ability, the manner in which exams and quizzes given during these various training programs were administered.

Finally, in response to the issue raised concerning the reluctance of one of the training instructors to answer questions concerning rumors and the use of crib sheets and unauthorized materials, as this individual explained in a subsequent NRC interview, his reluctance to answer the questions posed to him by the NRC interviewer was based on the rambling and, essentially, compound nature of the investigator's questions. When subsequently asked specific questions by NRC, the instructor had no difficulty stating his absolute lack of any previous knowledge of cheating or misconduct on the NRC or Company-administered examinations.

The instructor did overhear the phrase, "passing papers" in a discussion between two people he walked by in the Training offices several weeks after the NRC exams. However, not until the cheating incident was uncovered in July, and NRC's investigative reports issued, did the instructor consider that the phrase he had overheard was a possible reference to cheating.

A. Instructions to Examinees

The written and oral instructions given to operator examinees during annual requalification and qualification exams and weekly quizzes have varied, both according to the nature of the exam being given, and the instructor giving the exam. Mr. Kelly, of PQS, describes in his testimony his administration of the mock exams given at the end of the OARP in April of 1980. The ATTS or "mock" exam given in April of 1981 was not accompanied by written instructions. Oral instructions were given, although not on the subject of cheating.

Generally, annual requalification exams at TMI included written instructions; however, these instructions did not include the directive not to cheat. Directions included such matters as answering questions on separate paper, how an examinee could determine which questions only needed to be answered by senior reactor operators, and the minimum passing grade. Oral instructions varied according to the instructor, with respect to both requalification exams and weekly quizzes given during the course of the training program. Several instructors recall that they specifically directed students to do their own work on annual requalification exams.

B. Proctoring

Written examinations and quizzes given in the classroom at TMI were generally proctored. (Closed book quizzes were also given on take home assignments, which were not proctored.) However, because the emphasis of proctoring was on the availability of an instructor to answer questions, as needed, and not on the need to monitor the classroom for misconduct, proctors did leave the classroom for periods of time. In retrospect, in order to ensure proper conduct, to protect individuals who successfully pass exams, to avoid the possibility of compromising the exam process, and to remove any temptation to cheat which the absence of a proctor might create, all closed book exams and quizzes should have been, and from now on will be, fully proctored, as discussed by Dr. Long later in this testimony.

C. Grading

Generally, quizzes given to operators during the qualification and requalification programs were graded by the instructor teaching that section of the program. In some instances, quizzes were reviewed to determine areas of weakness, but were not numerically graded. Comprehensive exams, such as the operator qualification (Category IV) exams, sometimes were graded by an assigned individual who made up the exam based on a pool of questions provided by each instructor teaching portions of the program. In other instances, comprehensive exams were made up and graded by a number of individuals.

The ATTS or "mock" exam was graded by nine individuals, including members of the Operator Training Department (Messrs. Brown, Boltz and Husted) and contractors from ATTS. The exams were taken in two "sets"; that is, the 36 RO exams given consisted of 20 "set A" exams and 16 "set B" exams. Similarly, the 20 SRO exams administered consisted of 8 "set A" exams and 12 "set B" exams. Thus, the exam was given in two intervals, with different exams given each interval. All 56 examinations were graded over one weekend. The exams were divided topically, so that one grader looked at every answer to a particular question; however, that individual did not necessarily look at only questions contained on one set of the exams. Nor did he look at the answers in a particular order, i.e., he may have graded Operator A's answers after looking at other exams in connection with the first question on one topic. He may then have graded the next question on the same topic beginning with Operator A's answer.

The ATTS exam graders did not suspect cheating on the exams they administered. They did not know or hear rumors that cheating had occurred on this exam prior to August. We attribute their nondiscovery of cheating to the short amount of time in which the various exams were graded in a rather rote fashion with the use of an answer key, the absence of a consistent order in which the exams were graded, and the general similarity of correct answers to a particular question. This exam was proctored; however, a proctor was not always in the room.

D. Safeguarding the Integrity of Exam Materials

Licensee had no written procedure to safeguard operator exam materials; however, instructors do have locked file drawers to facilitate exam security. Moreover, we have no reason to believe that the integrity of operator exam materials was ever compromised, or that instructors did not take care to ensure that operator exam materials could not be obtained prior to taking an exam.

Mr. Kelly addresses in his testimony the administration of the mock comprehensive exams following the OARP. With respect to the ATTS exam given in April of 1981, different exams were given on different days. Moreover, examination questions were handed in at the end of the examination. Prior to the exam, ATTS kept possession and maintained security of the exams. In general, with the creation in 1980 of a separate Administrative Support section of the TMI Training Department, administrative work generally has been allocated to that organization in an effort to reduce administrative demands on instructors. Thus, historical records have been maintained by Administrative Support; however, training instructors are still responsible for the integrity of an exam prior to its use.

BY DR. LONG

IV. The Re-Examination Process

The Training & Education Department within GPU Nuclear Corporation, which has been organized in its current structure

since early 1980, intends to continue the policy of allowing individuals who fail examinations, or who fail to achieve a high level of proficiency on a subject area or areas, to re-take the examination. I can say without equivocation that this process is not intended to ensure that individuals who lack the requisite knowledge somehow muddle through the training program, and then perhaps muddle through the NRC exam and become licensed operators.

In my view--and I believe that this is a fundamental principle of education--focusing upon a particular subject area strengthens an individual's understanding of that material. Moreover, the re-examination process does not simply consist of taking an exam or quiz, failing it, and then immediately re-taking the exam. Rather, we believe that if an individual appears to lack a thorough knowledge of materials -- a fact which may be apparent from a quiz on the subject, from his performance in OJT, or from an oral or written comprehensive exam -- it is the responsibility of the instructor to identify that weakness, and to provide to an individual additional instruction, reading materials, exercises, or whatever training tools are appropriate to assist that individual in gaining the requisite understanding.

Thus, a major purpose served by both quizzes and examinations in our licensed operator training programs is to focus operator instructors on areas which were not understood by a particular individual or, perhaps, were not taught sufficiently well. Our procedures provide for discussions

between the Operator Training Manager and TMI-1 Manager of Operations in the event an individual repeatedly fails examinations to determine whether the individual lacks the ability or motivation necessary for the job, whether additional training is appropriate, or whether there is a personal, attitude or other problem which is resulting in deficient exam performance. However, we do not believe failing an exam, which generally means failing to achieve at least 80% on specific subject areas, necessarily indicates that an individual should be automatically disqualified.

In summary, our training programs are written to ensure that deficiencies in operator performances on exams are monitored, remedied through additional training, and re-evaluated through re-examination in the area(s) of deficiency. This method of instruction is carried out in specific instances for individuals, as well as generally, in our formulation of lecture topics for the annual requalification program. One of the factors which the licensed operator instructors consider in determining the focus of their lectures is the degree to which the material is understood in depth by the operators, as reflected in their previous comprehensive annual examinations. During the requalification program lectures, emphasis is placed on the materials on which the operators achieved the lowest grades in the previous requalification or replacement training program.

V. Coaching

"Coaching," which we understand to be teaching an examination, rather than teaching the complete subject area, in our opinion is not the teaching method employed at TMI. Nor, on the other hand, can we say that this phenomenon is avoided entirely. The Training & Education Department is committed to the well established educational method of criterion-referenced instruction. This approach relies on developing behavioral learning objectives which serve to focus both student and instructor attention on the performances sought as a result of the instruction. This has the distinct advantage of avoiding the "hide and seek" game which we believe frequently exists between a teacher and students for determining what subject matter will be on an exam and, generally, what information the teacher really wants the students to understand. Sometimes, the learning objectives call for memorization, e.g., stating NRC's radiation exposure limits or numerical values for plant reactivity coefficients. In other cases, the objective requires explanation of a concept, e.g., defining what a reactivity coefficient is and describing how it is used and why it changes with various plant conditions. We do not believe that this teaching philosophy and method results in students ignoring other materials taught; rather, it forces teachers to organize their lectures and materials around basic concepts and necessary information, and allows students to more easily determine the significance of the information communicated to them.

The development and use of behavioral learning objectives is an important part of the TMI Instructor Development Program (described in Section II of this testimony) which has been completed by all licensed-operator instructors. The upcoming Advanced Instructor Development Program is being designed to provide substantial additional emphasis on criterion-referenced instruction. As training programs and lesson plans are developed, updated, or otherwise revised, increasingly better behavioral learning objectives are incorporated through the joint efforts of the instructors and their supervisor/manager.

~~Finally, we believe that it is important to recognize that~~ operator training, like any other educational process, does involve a significant amount of memorization, as well as conceptual understanding of materials. In order for an individual to succeed on a comprehensive exam, such as our annual requalification exams or the NRC license examinations, a great deal of time must be spent by that individual memorizing formulas, important terminology, procedures, etc. This process is no different from the process which we understand lawyers, doctors and engineers engage in when they are licensed. In order to determine whether an individual has "learned", i.e., memorized, this material, test questions frequently will be rote, e.g., ask the student to write a particular formula. In our view, this does not constitute "coaching." On the other hand, we do not believe that concepts can be memorized; nor do we believe our quizzes and exams permit short-circuiting the learning process by complete memorization of materials. For

example, we alter the nature of conceptual questions sufficiently to assure that an individual really does understand the principle and has not just memorized a definition. While we may very well tell our students that they will be tested on a particular concept because of its importance, by changing the nature of the question slightly when we test students on this conceptual material, we can fairly easily determine whether the subject matter is genuinely understood. In addition, of course, through the required oral examination process which in our annual exams may vary from four to six hours, we can rather easily determine an individual's depth of understanding.

BY DR. LONG AND MR. NEWTON

VI. Use of Independent Examiners

One of the issues in this proceeding is the adequacy of Licensee's plans for improving the administration of future Company qualification examinations for licensed operators and candidates for operator licenses, including the need for independent administration and grading of such examinations. Section VIII of this testimony, by Dr. Long, discusses our new procedure for exam administration, as well as several other pertinent policies. With respect to the use of independent examiners, we do not believe that this is responsive to the issue of cheating, nor do we see it as a necessary or even a desirable step to take.

The fact that cheating took place on an NRC-administered examination, and on exams written by ATTS and administered and graded by ATTS and members of the TMI operator training staff,

indicates that cheating can occur on any exam, regardless of who writes, administers or grades it. What we as educators and examiners must do is preserve the integrity of our training program and examination process. We do not believe that the answer lies in delegating this responsibility elsewhere, e.g., by using outside contractors to administer exams. Rather, we must improve our own administrative processes to protect against abuses such as copying exam answers.

In our view, there are a number of things that GPU Nuclear can, and hopefully has, done to prevent cheating. Management must make clear to its employees that cheating is totally unacceptable. The importance of the operator examination process in determining the qualifications of operators must be clearly articulated. In addition, the consequences of cheating must be clearly understood. Mr. Hukill in his testimony addresses the Company's efforts in these areas. From our perspective as members of the Training & Education Department, we must assure ourselves that we have done everything possible to avoid compromising the extensive process which we have so carefully developed to train operators. To this end, we must establish and follow procedures on exam administration, document control, record retention, and other safeguarding principles.

One of the major reasons we do not support the use of independent examiners on a regular basis at TMI is not only that we do not think it is particularly responsive to the cheating issue, but also because we believe that an instructor

who has worked with students over an extended period of time, who has developed the teaching materials, who knows the facility and its procedures very well, and who understands first-hand the potential weaknesses of his students, is in by far the best position to write and grade an exam. We are confident in our teachers and training managers, and our experience tells us that they write exams which focus on the material which, in our view, is most important. In our efforts to improve the exam administration process we do not want to reduce the substantive value of the teaching program, of which quizzes and exams are an integral part. We believe that this is the risk that one takes by substituting outside contractors for regular training staff when it comes to writing and administering exams. Now that we have increased our training staff so that we do not have to rely on outside contractors, it would be a disservice to our program to opt for that route because of our past administrative shortcomings.

Finally, the "outside consultant" verification of the qualifications of our operators, as well as the adequacy of our operator training program, is the NRC operator license examinations. Of course, this exam process can be abused, too, as we now well know. And we anticipate that like us, the NRC staff will strive to better protect itself from such abuses. Here, again, we do not believe it is a matter of who administers the exams, but how well exams are administered.

BY DR. LONG

VII. RWP Training

While I cannot directly address the specific allegations of cheating which I understand have been raised concerning one exam in April, 1979, by a Mr. Harry E. Williams, Jr., a former contractor employee at Three Mile Island, I will attempt to describe the context of the program to which his allegations relate, and the information I have been able to glean from past Training records and from present and former Training personnel.

Every individual who works at Three Mile Island, including Licensee employees and contractor personnel, must take General Employee Training (GET) on an annual basis. (For very short visits, waivers with escort are permitted.) Personnel who do not work in so-called radiation areas of the plant (where there is a reasonable potential for radiation exposure above a specified level) need only take the basic health physics course given by the Training Department. This course covers pertinent emergency plan information, basic elements of health physics, security, safety, NRC and site regulations. Individuals who need a radiation work permit (RWP) in order to do their jobs because of the areas of the site in which they work must take a more extensive, intermediate health physics class, frequently called RWP training. While the health physics courses available for various personnel working at TMI have changed over the past several years, both before and after the accident the basic distinction between individuals who were required to

have an RWP (and take RWP training), and those who were not, has remained the same.

GET Training, both basic and intermediate, was (and still is) required to be retaken by all employees on an annual basis. Thus, many of the individuals taking the exams had been trained and tested on the material on a number of previous occasions. In order to pass the intermediate or RWP course, an individual was required to attend the training session and successfully take the test. Once an individual met these criteria, he received from the Security Department an "RWP" indication on his or her regular identification badge.

In order to go into a radiation area, however, at least in the time-frame of the spring and summer after the TMI-2 accident, it was also necessary to get checked through one of the designated health physics control points into the plant. Thus, obtaining an RWP sticker on your badge did not entitle you to enter RWP areas of the facility. To pass through a control point, it was required that there be on file a record of the person's respirator fit, which verified that the individual had participated in a procedure to ensure that the respirator issued as standard equipment fit properly. Also, each individual had to have a thermoluminescent dosimeter (TLD) issued to him, a current whole body count on record and a current physical on record. By the fall of 1979, this system was fully computerized.

Prior to the TMI-2 accident, each year approximately 1,500 to 2,000 individuals took GET (both basic and intermediate

courses, and including individuals who were requalifying). With the tremendous influx of individuals onto the Island after the accident, the number of people taking GET rose to very roughly 1,500 to 2,000 individuals each month, at least for the first three to four months after the accident. Subsequently, the numbers went down to approximately 500 each month--still significantly higher than the pre-accident figure.

Processing 1,500 to 2,000 miscellaneous individuals, from experienced, degreed nuclear engineers to construction laborers, through classes ranging in size from approximately 5 to 50, required an enormous effort peripheral to the major focus of Licensee and others after the accident. In order to accomplish this task, the Training Department, with the assistance of the Health Physics Department, employed a number of outside contractors, in addition to Training personnel, to conduct the GET programs. The contractors' suitability for this job was verified by individuals in the Health Physics Department. The Training Department, responsible for the administration of the GET programs, provided to the instructors (including consultants) the package of materials which were required to be taught, including audio-visual tapes, lesson plans, and testing materials.

Basic and intermediate health physics courses were taught around the clock in three sessions for a number of months after the TMI-2 accident, at which time they were taught twice each day, in order to cover day-time and night-time shifts. A number of different exams (from two to four versions) existed

for the RWP course in the months following the accident. The instructor/examiner generally utilized two tests, an A and a B test, in each classroom, with tests alternating from person to person. Thus, if I were taking test A, the individuals sitting on both my left and right sides would have been taking test B. After the approximately seven to eight hour course, the test was administered. Multiple choice questions were used, and there were generally 45 to 50 questions.

Effort was made to fully proctor the tests, although the instructor/examiners may have left the room for a period of minutes to resolve administrative matters, go to the bathroom, etc. On a few occasions, an instructor/examiner may have been running two classes at a time, with the basic course consisting solely of audiovisual instruction tapes. Nevertheless, to change tapes, answer questions, and administer the basic health physics test, the RWP instructor might have been absent from the RWP classroom for longer periods of time. However, because of the shorter basic course, any such absence would not have occurred during the administration of the RWP test.

One of the individuals who taught RWP shortly after Mr. Williams took the course recalls that he suspected a test may have been missing. Another RWP instructor/examiner recollects that the answer key may have been seen. As a result of these suspicions, the tests were changed, at least by rearranging the order of the questions. The recollection of one of these former RWP training instructors is that he closely proctored the test, and only he and the instructors he worked with knew

where the tests and the answer keys were kept--which was at two different locations. However, this individual is not sure whether this procedure for securing the exam materials occurred prior to or after he became suspicious of cheating on the RWP exams. He does recall that in about the fall of 1979, exams and keys were locked up.

From Training records, it is clear that Mr. Williams, who was employed by Licensee's security contractor at TMI from early 1979 through May of that year, took basic health physics on January 22, 1979, and then took the intermediate course on April 28, 1979. The allegations Mr. Williams has raised relate to the April RWP test he took, which was administered by Mr. Steven F. Lavie, a contractor employed by NUS Corporation. The test Mr. Williams took contained 50 multiple choice questions. In order to pass, a grade of 35 or better was required. Mr. Williams passed, with 44 out of 50 correct answers. LIC. EX. 71. See Attachment 4.

~~66~~ ²⁵ ~~thirty-six~~ other individuals took the RWP training course and test on April 28. ^{one} ~~one~~ person failed the test. The highest grade on the test was ⁴⁹ ~~48~~ out of 50, which ^{two} ~~one~~ person received. LIC. EX. 72. See Attachment 5.

RWP Session given by instructor Watson.

Today, both basic and intermediate (RWP) health physics are taught at TMI under the auspices of the TMI Training Department. Exams are regularly rewritten, at least every six months by requirement, and several versions of the exam are administered to each class of RWP students. Every individual

who is currently "badged" for unescorted access into the plant, which means that the person has taken the basic or intermediate health physics course and passed the test, has taken (or retaken) the test in the past year. The administrative procedures which I describe in Section VIII of this testimony apply to RWP and all other exams administered by the TMI Training Department (as well as any tests administered by contractors who may be employed by Licensee).

VIII. New Procedures & Policies Related to Exam Administration and Cheating

As a result of the discovery of cheating on the NRC operator examinations, a new procedure has been written on the Administration of Examinations, Procedure No. 6200-ADM 2600.1 ^{LIC. EX. 73} (~~Attachment-6~~). This procedure is applicable to Training & Education Department personnel, as well as Training & Education Department contractors and monitors. Other corporate policies, which formalize policies originally implemented by executive memoranda, are in the final review and approval process. Examples of these are: (a) GPU Nuclear Policy Regarding Cheating, Fraud and Misconduct, Procedure No. 1000-POL-2604.1, applicable to all GPU Nuclear personnel; (b) Standards of Conduct, Procedure No. 1000-POL-2000.1, applicable to all corporate activities; and (c) Adherence to Policies and Procedures, Procedure No. 1000-POL-1218.3, applicable to all corporate activities. While the procedure for exam administration is self-explanatory, it may be helpful to briefly summarize its important principles. I have also summarized the corporate policies listed above.

A. Administration of Examinations Procedure

In order to ensure that all exams administered by the Training & Education Department test the ability of the individual and prevent conduct which would defeat this purpose, I have instituted, effective October 20, 1981, the following rules applicable to all exams administered by the Training & Education Department:

- (1) specific methods are provided for ensuring that exams are secured, e.g., typists must return all draft exam sheets to the individual requesting the typing;
- (2) all exams are accompanied by a "Written Examination Certification Cover Sheet" which, among other things, specifies whether the exam is open or closed book, specifies rules of conduct, identifies authorized reference materials, and provides a space for students to sign a statement that their work is their own;
- (3) instructor/examiner procedures are specified for ensuring that the physical environment in which the exams are taken does not compromise the exam process, e.g., no unauthorized materials are present, students are not sitting close together, seating charts are made for "major" exams, such as the requalification exams;
- (4) 100% proctoring is maintained;
- (5) rules on students leaving the exam room during the examination are provided; and

(6) misconduct is required to be immediately reported to Training supervisory personnel orally and in writing; the written report is given to the Manager of Training who reports it in writing to the Human Resources Department (GPU Nuclear's personnel department), and notifies an individual in the student's supervisory chain, as well as the Director of Training & Education.

I have discussed this new procedure with the Training Department at TMI in a meeting which I convened for the training manager, supervisors, instructors and administrative personnel the week of October 19, 1981. In this meeting, I emphasized that it is incumbent upon us as teachers to ensure the integrity of our examination process. While we are not the disciplinary function in the organization, it is clearly our responsibility to approach examinations with the appropriate attitude, and to take measures to protect the efficacy of the exams we administer.

In addition to my emphasis on the responsibility of our instructors to preserve the integrity of the programs they teach, Mr. Herbein, the Vice President of Nuclear Assurance, has voiced his opinion on this subject through individual letters sent to and meetings held with all licensed training personnel in GPU Nuclear. In addition to specifically asking each individual to endorse the Company's position with regard to the importance of the NRC examinations and other regulatory requirements, Mr. Herbein has discussed the reliance management

has placed and will continue to place on the instructors' relaying information they know about misconduct such as cheating. I understand Mr. Hukill has conducted essentially the same interview process with licensed members of his staff.

B. GPU Nuclear Policy Regarding Cheating, Fraud and Misconduct

The Office of the President of GPU Nuclear has instituted a policy which clearly defines what constitutes cheating, fraud and misconduct, and states GPU Nuclear's policy regarding these activities. The policy makes clear that no GPU Nuclear employee shall cheat, perpetrate a fraud, or falsify any company document, report, test or examination in the conduct and discharge of his assigned responsibilities without disciplinary action being taken by the Company, in those instances where such becomes known to the Company. The severity of such disciplinary action is dependent upon the facts of each case, and it is clearly stated that charges of known or suspected misconduct may warrant immediate suspension of the individual(s) involved, subject to further disciplinary action up to and including discharge. The policy also makes clear that all personnel are responsible for reporting all perceived acts of cheating, fraud or misconduct. It is the responsibility of the Director of Human Resources to investigate all such reports. Ultimately, it is the responsibility of upper management, e.g., Mr. Hukill, with the counsel of Messrs. Arnold and Clark with respect to TMI-1, to determine the appropriate disciplinary action for TMI personnel who are found to have violated this policy.

C. Standards of Conduct

This policy, also instituted by the Office of the President, is intended to clearly state the Company's expectation that its employees behave in a manner consistent with our unique responsibility as members of the nuclear power industry to protect the public health and safety. Prohibited activities, such as possession or use of substances which alter physical or mental capacity, gambling, intentional dishonesty, and the public use of profane language are specified.

D. Adherence to Policies and Procedures

This statement, from the Office of the President, essentially states that strict compliance with policies and procedures issued by GPU Nuclear is required, and that GPU Nuclear will not condone any instance of willful disregard of policies or procedures.

IX. Conclusions

As a result of the cheating by two SRO license candidates on an NRC examination, we have critically examined our past practices. While there was a mostly unspoken understanding that cheating is totally unacceptable behavior, the lack of formal procedures and practices may have been a contributing factor to the misconduct of the two license candidates. We now have implemented a procedure for "Administration of Examinations" to ensure that our examinations provide an objective and accurate measure of the specific knowledge and skills that individuals must have to properly perform their

jobs. We have clarified through formal policies and meetings with personnel our total commitment to ensuring that all our activities are in compliance with corporate and regulatory requirements. Finally, we remain committed to the delivery of increasingly high quality programs in the wide range of subject areas required of a nuclear facility and to ensuring the integrity of the testing and evaluation of our trainees.

1 MR. BLAKE: Next, Judge Milhollin, I would like to
2 identify, and I would ask they be accepted by stipulation of
3 the parties, three documents which were distributed as
4 Attachments 4, 5 and 6 to this panel's testimony, and which
5 we now plan to introduce rather than as attachments, into
6 the record itself -- into the transcript itself -- as
7 licensee exhibits.

8 The first document is a one-page document entitled
9 "Radiation Protection Examination Answer Sheet." It appears
10 to be an examination answer sheet for Harry E. Williams,
11 Jr., and the date on the document appears to be 4/28/79.
12 This I would ask be identified as Licensee Exhibit 71.

13 (The document referred to was
14 marked Licensee Exhibit No.
15 71 for identification.)

16 MR. BLAKE: The second document has a cover sheet
17 upon which the words "Licensee's Testimony of R. L. Long"
18 appear, and also the words "Lic. Ex. 72.) That stands for
19 Licensee Exhibit 72. Scratched out on this document are the
20 words "Samuel L. Newton and Nelson V. Brown" as well as the
21 words "Attachment 5."

22 MR. GOLDBERG: The copy I have as originally
23 distributed by the licensee does not have the names Newton
24 and Brown crossed out; it does not have the typewritten
25 designation Licensee Exhibit 72. Other than that, is this

1 identical?

2 MR. BLAKE: Yes, it is identical to a document
3 which was provided not as initially distributed at the time
4 the testimony was distributed on 11/03, but because of
5 corrections which we have noted, was distributed to the
6 parties yesterday morning.

7 It is a fairly thick document comprised of a
8 number of answer sheets which are similar, but for different
9 individuals. Similar to Licensee exhibit 71. I would ask
10 that this document be identified as Licensee Exhibit 72.

11 (The document referred to was
12 marked Licensee Exhibit No.
13 72 for identification.)

14 MR. BLAKE: The third document is entitled
15 "Administration of Examinations." It appears to procedure
16 number 6200-ADM 2600.1. This document, as initially
17 distributed, had in the upper righthand corner "Attachment
18 6." I would ask that that designation be stricken and that
19 it be identified as Licensee Exhibit 73.

20 (The document referred to was
21 marked Licensee Exhibit No.
22 73 for identification.)

23 MR. BLAKE: Judge Milhollin, I would ask that
24 Licensee Exhibits 71, 72 and 73 be accepted into evidence.

25 JUDGE MILHOLLIN: They are received in evidence.

1 (The documents previously
2 marked Licensee Exhibit No.
3 71, 72 and 73 for
4 identification were received
5 in evidence.)

6 MR. BLAKE: I have no additional direct of Dr.
7 Long, and he is available for cross examination.

8 JUDGE MILHOLLIN: TMIA has no questios, is that
9 right?

10 MS. BRADFORD: No.

11 CROSS EXAMINATION

12 BY MR. CLEWETT:

13 Q Good morning, Dr. Long, my name is John Clewett.
14 On page 3 of your prepared testimony, you state in about the
15 middle of the page that the implicit understanding which
16 every member of the coaching staff has had in the past is
17 that cheating is essentially incomprehensible. Is this
18 still the view, in your opinion?

19 MR. BLAKE I would interrupt only to observe that
20 the question said coaching staff. I think that was just a
21 slip.

22 MR. CLEWETT: I am sorry.

23 MR. BLAKE: Since coaching is a question in this
24 proceeding.

25 MR. CLEWETT: Yes, that was an inadvertent

1 mis-statement. Teaching staff.

2 BY MR. CLEWETT (Resuming):

3 Q Is this still the view?

4 A It clearly cannot be the view at this point in
5 time because we know we did have cheating.

6 Q So at this point, it is not accurate to say that
7 you believe every member of the teaching staff has, in the
8 present tense.

9 A Yes, I would agree that in the sense that at this
10 point, knowing that there has been cheating in the past, we
11 cannot say that it is incomprehensible to us in the present.

12 Q When did you hear of the incident? When did you
13 first hear of the incident between Mr. O and Mr. W?

14 A I believe it was on the morning of July 28.

15 Q Have you formed in your mind any opinion as to why
16 these individuals cheated?

17 A I do not think I have been able to formulate a
18 real why they cheated. It has been very difficult for me to
19 understand, as it was for all of us who know them. I do not
20 know the two individuals very well personally. I had met
21 both of them, I had been in brief meetings with them, but as
22 to really trying to decide why they chose to do that, I do
23 not know.

24 Q Have you formed any provisional explanation in
25 your own mind as to what the basis was?

1 JUDGE MILHOLLIN: I think he has answered that.

2 MR. BLAKE: Judge Milhollin, I would observe at
3 this point as well that this is not the subject of this
4 individual's testimony, and as well, from the trial plan
5 provided by the Aamodts' inferences, in my view, considered,
6 I do not see this as having been an individual request of
7 the Aamodts for Dr. Long's testimony.

8 JUDGE MILHOLLIN: He said he had no explanation
9 for why the individuals cheated. You can ask him another
10 question if you like, specific to the subject.

11 BY MR. CLEWETT (Resuming):

12 Q Do you believe that the training that these
13 individuals had been through may have contributed to their
14 decision to cheat? Might they have felt unprepared?

15 A Those are two different questions. The first
16 question, do I believe that the training contributed to it;
17 no, I do not. Whether or not they felt unprepared, I would
18 think it is reasonable to say that at least one of them felt
19 unprepared, or they would not have been involved in cheating.

20 (Counsel for the Aamodts conferring.)

21 Q If at least one of the individuals did feel
22 unprepared would that -- wouldn't that reflect on the
23 training that he had received?

24 A I do not agree that that is a logical follow-on.
25 It seems to me that preparation for that exam was a very

1 difficult task. The individuals preparing for it have to
2 maintain their job performance as well as preparing for the
3 exam, and in the end, the individual trainee, the individual
4 candidate for license, is responsible for preparing himself.

5 We provide every assistance we can to prepare
6 them, but the ultimate responsibility for being prepared is
7 up to the individual.

8 Q It is my understanding from the testimony given by
9 Mr. Newton and Mr. Brown that the recent administration of
10 the Category T test involved the use of the same form of the
11 test on both November 2 and November 6. In view of your
12 statement now that cheating is not essentially
13 incomprehensible, do you believe that it is reasonable to
14 have used the same form of that test on different days?

15 A I have not kept up with the details of how the
16 Category T test was administered, and I assume you are
17 referring to November 2 and 6 of this year.

18 Q Yes, sir.

19 A I think that is a judgment that the training
20 people who were administering the test had to make, based on
21 who the examinees were; what their schedule was, what shifts
22 they were on, what instructions they gave them.

23 The Category T exam was fairly well defined in
24 terms of its subject matter, so you would not expect the
25 exams to be substantially different. The students knew the

1 kinds of topics that would be covered.

2 Q On page 11 and page 12, you refer to the fact, in
3 particular on the top of page 12, that you would continue
4 the policy of allowing individuals who fail examinations or
5 parts of examinations to retake the examination. In your
6 view, is there a limit to the number of times a person could
7 fail an examination and still be allowed to retake it?

8 A Yes, there is a limit.

9 Q What would that limit be?

10 A Our procedures say that after an individual has
11 retaken an exam for a second time, whether or not they will
12 be allowed to take the exam a third time is a decision that
13 has to be reviewed between the operations personnel and the
14 training personnel. So at that point, a decision is made
15 whether or not there were circumstances that could account
16 for it, whether or not the student is making an effort to
17 learn and improve, so that it is reviewed after the second
18 time a person has taken and failed an exam.

19 Q I assume, then, that the number of times a person
20 has failed an exam might also on an ad hoc basis affect the
21 certification of that person in the case of an NRC
22 examination.

23 A Yes, it could affect that.

24 JUDGE MILHOLLIN: I have a question about that.
25 Do you participate in the certification process?

1 THE WITNESS: No, sir, not directly.

2 JUDGE MILHOLLIN: So your approval is not
3 necessary.

4 THE WITNESS: No, it is not.

5 JUDGE MILHOLLIN: Who sends the Training
6 Department's view forward?

7 THE WITNESS: The Manager of Training at the
8 individual sites.

9 JUDGE MILHOLLIN: Who is that in this case?

10 THE WITNESS: In this case it is Dr. Knief at TMI.

11 JUDGE MILHOLLIN: And he would act on the
12 recommendation?

13 THE WITNESS: He would act on the recommendation
14 of Mr. Newton and Mr. Brown specifically.

15 JUDGE MILHOLLIN: I see. Are you familiar with
16 the examination history of the candidates?

17 THE WITNESS: Yes. Not in detail, but basically,
18 yes.

19 JUDGE MILHOLLIN: As I recall, Mr. H -- you may
20 want to look at your list. As I recall, Mr. H failed the
21 Category T examination when it was given by Mr. Kelly, and
22 he also failed the first round makeup, the second round
23 makeup. I believe he also failed the ATTS examination. I
24 think he also failed the NRC April examination. Yet, he was
25 certified to sit for the October NRC examination.

1 Could you explain why Mr. H was certified? I
2 realize you said that you are not familiar with the details
3 of that, but would that indicate to you that such an
4 individual should not be certified, that kind of examination
5 history?

6 THE WITNESS: I think what it indicates is that
7 that individual is having problems taking examinations,
8 first off. And some people do. We know from dealing with
9 our operators that some of them do have a lot of trouble
10 taking examinations.

11 I do not know Mr. H personally, nor the details on
12 that, but the decision to certify whether an individual
13 should take the exam is not just based on the exam
14 performance; it is based on their performance on the job, it
15 is based on the individual's attitude. If, for example, an
16 individual had a repeated history of failure of exams and
17 both the training personnel and the operations personnel
18 felt that that was a lack of effort, lack of concern, I
19 would not expect them to be certified to be ready to try the
20 NRC exam.

21 On the other hand, if the individuals on the job
22 performance were satisfactory, and if in other evaluations
23 of that individual's knowledge of the plant the plant
24 personnel felt confident that he really was capable of being
25 an effective satisfactory operator, then I could see that

1 they might decide to certify that he should be allowed to
2 take the exam.

3 MS. BRADFORD: Judge Milhollin, the technician
4 would like to fix the problem here, and that requires a
5 break.

6 JUDGE MILHOLLIN: Off the record.

7 (Discussion off the record.)

8 JUDGE MILHOLLIN: Back on the record.

9 BY MR. CLEWETT (Resuming):

10 Q Dr. Long, at what point, in your view, would
11 repeated failure of an examination indicate a deficiency in
12 terms of attitude, or would it necessarily?

13 A I think I have already indicated that our concern
14 begins upon a second failure, and we would be evaluating at
15 that point whether or not this was an attitude problem,
16 whether or not it was a personal problem that the individual
17 had and had just not been able to prepare; whether or not
18 there was some deficiency in the instruction, he just felt
19 that he had not been properly taught that material. That is
20 the purpose of that evaluation after a second failure.

21 Q In determining a second failure, do you take all
22 tests into account? Audit examinations, Category T,
23 Category T makeup, NEC examinations?

24 A I am not sure I understand the question.

25 Q In determining when the second failure has

1 occurred, which tests do you consider? In other words,
2 presumably, if a person failed two weekly quizzes, you might
3 not necessarily at that point begin to evaluate these
4 questions you were just addressing of attitude or whether
5 there is some personal problem or if the person felt he had
6 not been adequately instructed. I am just wondering which
7 sorts of tests you consider in counting toward the number
8 two.

9 A Well, let me clarify. One, I think you are
10 interpreting different than from what I tried to state, and
11 that was upon an individual failing the same exam of the
12 same subject material -- not necessarily the same exam, but
13 an examination of the same subject material -- a second
14 time, at that point an evaluation is done to determine
15 whether or not they can be allowed to retake the exam,
16 whether or not, if the circumstances require, that they be
17 removed from performing their particular functions.

18 Q On page 13 you indicate at the end of the
19 paragraph continued onto that page, that you do not believe
20 that failing an examination necessarily indicates that an
21 individual should be automatically disqualified. Does this
22 hold true for any numerical score that the person might
23 get? I mean, is there a point below which you would
24 automatically disqualify a person?

25 A There is certainly not a point defined

1 procedurally.

2 JUDGE MILHOLLIN: I think this question has been
3 asked and answered, Mr. Clewett. You asked him if there was
4 any number of exams; he answered that. The testimony
5 states that he does not believe failing an exam necessarily
6 indicates that an individual should be automatically
7 disqualified.

8 MR. CLEWETT: Very well.

9 BY MR. CLEWETT (Resuming):

10 Q Further down on that page, Dr. Long, you refer to
11 the annual requalification program. There was a matter I
12 would like to ask you to clarify. I believe Mr. Hukill in
13 his testimony referred to a biannual recertification
14 process, and I am wondering whether these are separate
15 procedures or whether there is some confusion as to whether
16 there is an annual or a biannual process. Can you clarify
17 that?

18 A Yes, I believe I can. I am not seeing where --
19 oh, I see, okay, annual requalification, in the middle of
20 that paragraph, yes.

21 The plant is required annually to requalify each
22 individual licensed person. And that qualification process
23 is one that has, I think, been described to you by others.
24 The license issued by the Nuclear Regulatory Commission to
25 an individual is good for a two-year period from the date of

1 issuing.

2 So that prior to that license expiring, each
3 individual has to go through a process where their
4 performance has been reviewed for the two-year period and a
5 certification is made to the Commission that they have been
6 performing their duties satisfactorily. They have met the
7 requirements for continuing their license and a request is
8 made to the NRC to continue their license.

9 Q So that even if someone did not pass the annual
10 requalification examination, there could still be another
11 year to make up whatever deficiencies there were in order to
12 be recertified. Is that correct?

13 A That is correct, with the conditions that are
14 specified in the procedure for annual requalification.

15 Q On page 16 you refer to the use of independent
16 examiners, and at the end of the last full paragraph on that
17 page, you say that you do not believe that the use of
18 independent examiners is a desirable step. Wouldn't it be
19 true, though, that independent examiners would be likely to
20 be more objective in their evaluation?

21 A I think it is debatable whether or not that is
22 true. I --

23 Q Do you know whether the belief that independent
24 examiners are likely to be more objective played a role in
25 the decision not to have Mr. Kelly administer a second

1 audit, so that there would be as independent an examiner as
2 possible for the 1981 audit examination?

3 A No, I do not think that was a consideration in the
4 decision of whether or not to use Mr. Kelly for the
5 independent audit in preparation for the April 1981 exam.

6 Q Do you know what the considerations were that were
7 involved in that decision?

8 A I believe I do, yes. I was not directly involved,
9 but because people who made the decision worked for me, I
10 was part of the discussions and my recollection is that Mr.
11 Kelly was not available at that time. He had commitments to
12 other clients, and it was a mutual decision that we would
13 use ATTS. And as I think is true, some people who Mr. Kelly
14 uses assisted ATTS in administering that exam.

15 Q Would it be --

16 JUDGE MILHOLLIN: So your testimony is Kelly was
17 not available to do the ATTS audit exam specifically. Is
18 that right?

19 THE WITNESS: Yes, that he was not available to do
20 the exam at the time.

21 JUDGE MILHOLLIN: We are referring to the exam
22 which was eventually done by ATTS, the audit exam in April
23 1981?

24 THE WITNESS: That is correct.

25 BY MR. CLEWETT (Resuming):

1 Q Would it be reasonable to suppose that instructors
2 who have spent a long time with particular operators,
3 particular students, would develop a certain vested
4 interest, if you will, in having those students pass?

5 A I do not think I would say that it is reasonable
6 that they would develop a vested interest. No. I can
7 certainly agree that they are vitally interested in whether
8 or not they pass, but it seems to me you are implying that
9 there is some underlying desire or driving force that says
10 the instructor is going to favor them in some way, and I do
11 not believe that is true.

12 Q So you do not believe that would affect their
13 objectivity at all, even on the requalification examinations?

14 A It seems to me from my years of teaching that I
15 always wrote the exams for the courses which I taught, and I
16 believe I was in the best position to do that, since I had
17 defined the objectives that I wanted the students to
18 accomplish, and could design questions to ascertain whether
19 or not they had met those objectives.

20 Q On page 22 of your prepared testimony in the
21 section where you discuss the radiation work permit test, in
22 the last paragraph beginning on that page, you state that
23 one of the individuals, RWP, shortly after Mr. Williams took
24 the course, recalls that he suspected a test may have been
25 missing.

1 Do you know how it came to pass that he became
2 suspicious of this?

3 A No, I do not know the details. In talking with
4 the individuals involved, as I think you are probably
5 already aware, that was a time of high stress. It was a
6 time of people working around the clock, doing instruction
7 24 hours a day. Large numbers of people, as we have
8 indicated, up to several thousand per month in that stress
9 period, and it certainly is conceivable to me that it would
10 have been possible for someone to have obtained a copy of
11 the test.

12 And I think that is what the instructors were
13 reflecting -- a concern that when they looked at how they
14 were doing, and the large numbers of people coming through
15 and how difficult it was to keep track of everything, I
16 think they began to think about that and thought we need to
17 be very careful with these tests and begin to develop more
18 than one.

19 Q Do you recall who this individual was who recalls
20 that he suspected a test may have been missing?

21 A I am not sure whether it was Mr. LaVie or another
22 instructor, Mr. Moore, which one of those I do not recall
23 that.

24 Q And in the following sentence when you say that
25 another instructor recollects that the answer key may have

1 been seen, who would that have been?

2 A I am not sure which of the two.

3 Q Well, in one order or another, both of those
4 individuals are represented in these two sentences?

5 A That is correct.

6 Q At what point did the second individual think that
7 the answer key may have been seen, if you know?

8 A I do not think we can identify just when that
9 was. The exams were being revised somewhere in that period
10 of a month after the accident. When you look at copies of
11 the exams you can see the dark lines from the Xerox machine
12 where there were dark lines. One page was taped to another
13 -- I do not think we can identify when that was.

14 Q I assume you do not have any firsthand knowledge
15 of how the RWP test was administered during this time period
16 in 1979, is that correct?

17 A No -- yes, that is correct.

18 Q Are you aware of any cheating having taken place
19 on the GET test at any point during the past several years,
20 to your knowledge?

21 JUDGE MILHOLLIN: Can you tell us what the GET
22 test is?

23 MR. CLEWETT: Yes, the general employee training
24 test.

25 JUDGE MILHOLLIN: Thank you.

1 MR. CLEWETT: I believe it is referred to on page
2 20 of the prepared statement.

3 THE WITNESS: I am not aware of any documented
4 incidents of cheating on that test.

5 BY MR. CLEWETT (Resuming):

6 Q Are you aware of any undocumented instances?

7 A No, nor undocumented.

8 Q Is it ever necessary to retake the RWP test, or is
9 that just given once for a given individual?

10 A No, for a given individual. Each person who is
11 certified as satisfying general employee training or
12 radiation worker training has to undergo annual retraining
13 and is given a test annually.

14 Q On page 23 referring to the numerical corrections
15 which you made earlier this morning, how did it happen, if
16 you know, how did it happen that there was originally this
17 error in terms of the number of people who had taken the
18 test on the 28th of April of 1979?

19 A The number of tests are in the several thousands.
20 They are filed alphabetically, not by date, and
21 alphabetically by last name. In defining the tests for
22 those dates, individuals had to sort through several
23 thousand tests one by one in individual file folders in
24 boxes. And the first time through, they did not do it as
25 carefully as I think we now see they should have.

1 They went through a second time and they went
2 through a third time, and we are now fairly confident that
3 we have found all of them with that April 28 date. It was a
4 very tedious, time-consuming chore.

5 Q At what point did it become apparent that there
6 had been a second administration of the test on the 28th
7 given by instructor Watson?

8 MR. BLAKE: The question is what?

9 BY MR. CLEWETT (Resuming):

10 Q I understood that one of the corrections which Dr.
11 Long made earlier this morning was to indicate that 25
12 individuals took an April 28 RWP session given by instructor
13 Watson. And I was wondering at what point it became
14 apparent that that was the case, since the initial response
15 to discovery I believe indicated that they had all been in
16 the session involving instructor LaVie.

17 MR. BLAKE: I must admit some confusion. They all
18 -- and the original discovery response I must confess that I
19 am somewhat confused here. I think questions more directly
20 related to this witness without an assumption of knowledge
21 of his part might be more useful at this juncture. If you
22 could ask him a more direct question without assuming
23 knowledge on his part which is not in evidence here.

24 JUDGE MILHOLLIN: Can you rephrase the question
25 and first ask the witness whether there were, for example,

1 -- whether more than one examination session occurred and
2 whether two different instructors gave it, and then when it
3 was discovered that this happened.

4 MR. CLEWETT: Fair enough, yes.

5 BY MR. CLEWETT (Resuming):

6 Q Am I correct in assuming from your statement as
7 corrected that there were, in fact, two sessions given on
8 the 28th, one by instructor Watson and one by instructor
9 LaVie?

10 A Not quite. It is my understanding that there were
11 actually three training sessions because we were running
12 around the clock, three shifts. So on the 28th there were
13 three training sessions.

14 One of them was by instructor Watson; the other
15 two by instructor LaVie.

16 Q Do you happen to know how many individuals sat for
17 each of those sessions given by instructor LaVie? Would
18 there have been two examinations given by LaVie, or would
19 there have been one?

20 A Two questions. The answer to the first question --

21 Q I'm sorry.

22 A No, we cannot tell how many students were in each
23 of the two sessions taught by instructor LaVie.

24 Q Would he have given one examination or two?

25 A As best we can tell from looking at these 66

1 answer sheets, there were two exams given during that day,
2 and that was fairly typical. They decide which two exams
3 they were going to use and here were -- it was what at that
4 time was known as Exam 2 and Exam 3, and these were just
5 hand lettered.

6 JUDGE MILHOLLIN: You mean two different sets of
7 questions?

8 MR. CLEWETT: I think there is some confusion here.

9 BY MR. CLEWETT (Resuming):

10 Q I understood, Dr. Long, from your testimony that
11 there would have been three separate class sessions during
12 the 28th, is that correct?

13 A That is correct.

14 Q And at the end of each of those class sessions,
15 would there have been a separate administration of the RWP
16 exam?

17 A That is correct.

18 Q So would it be correct, then, that instructor
19 LaVie would have administered two separate administrations
20 of the examination on that day?

21 A That is correct. And may I clarify one more
22 thing? In giving the exam, he was using two different
23 versions of the test, so that when he gave the exam, he gave
24 out exam 2 and exam 3, arbitrarily numbered, to the group of
25 students who were being tested at the end of that particular

ing session.

JUDGE MILHOLLIN: And that practice occurred in
of the sessions which he taught?

4 THE WITNESS: Yes, sir.

5 JUDGE MILHOLLIN: I see.

6 BY MR. CLEWETT (Resuming):

7 Q On page 25 in the paragraph numbered 1 -- I am
8 sorry, in the paragraph numbered 2, you refer to the fact
9 that the cover sheet on examinations specifies whether it is
10 to be open book or closed book. How often are tests given
11 in the open-book format?

12 A Not very often. That is not a normal mode, but
13 there are occasions when it is appropriate for the students
14 to be able to use open text material.

15 Q Which types of tests would involve open-book
16 examinations? Is that possible --

17 A It is most likely to be a weekly quiz. Is that
18 what you mean by type of test? A weekly quiz over a
19 particular unit of material might be open book.

20 Q Would that be a requalification quiz?

21 A Not normally certainly, no.

22 Q But it could?

23 A It could be, yes.

24 (Counsel for the Aamodts conferring.)

25 MR. CLEWETT: One moment, please.

1 (Pause.)

2 MR. BLAKE: While Mr. Clewett is taking a break, I
3 should observe that with respect to the earlier discovery
4 reference, referring to our discovery response of October
5 26, both names, Mr. LaVie and Mr. Watson, appear. Mr.
6 LaVie's name was misspelled, however.

7 BY MR. CLEWETT (Resuming):

8 Q Dr. Long, do you recollect at any point getting a
9 communication from the NRC which indicated that the
10 requalification quizzes should not be given in the open-book
11 format?

12 A No, I do not, but I would not expect to because I
13 do not keep up with those kinds of details at the individual
14 sites.

15 Q Is AT-1006 still in effect, to your knowledge?

16 A I believe it is, but I am sure Mr. Newton and Mr.
17 Brown were able to say with great certainty whether or not
18 it was.

19 Q Do you know whether that incorporates any
20 prohibition against open-book tests?

21 A No, I do not know.

22 (Counsel for the Aamodts conferring.)

23 Q I would like to show you a document which was
24 included in the letter from Mr. Collins of the NRC and ask
25 if you have ever seen this before.

1 MR. BLAKE: Excuse me, do you have an entire copy
2 of Mr. Collins' letter so I can see some context or see what
3 --

4 MR. CLEWETT: Actually, I do not believe we do, no.
5 (Counsel handing document to witness and parties.)
6 (Witness reviewing document.)

7 THE WITNESS: I do not recall seeing this before,
8 no.

9 (Counsel for the Amodeis conferring.)

10 THE WITNESS: Oh, wait a minute. Yes, now that I
11 start to read it, I am aware that this would have been
12 correspondence on AT-1006, and I was aware of the
13 correspondence.

14 BY MR. CLEWETT (Resuming):

15 Q And in the --

16 JUDGE MILHOLLIN: Mr. Clewett, is this a page out
17 of a letter?

18 MR. CLEWETT: I believe it was an attachment to a
19 letter from Mr. Collins dated December 1, 1980.

20 JUDGE MILHOLLIN: Well, why are you just giving
21 him one page? Why don't you give him the whole letter?

22 MR. CLEWETT: I, as a practical matter, -- the
23 letter itself appears to have been misplaced at some point
24 over the past number of months. And so I was just inquiring
25 whether he had ever seen this --

1 JUDGE MILHOLLIN: Misplaced by you?

2 MR. CLEWETT: Not by me, no.

3 MR. BLAKE: Well, I would like an opportunity to
4 look at this and see it in context, or even verify that that
5 is, in fact, what this document is.

6 I wonder if we might go on to other questions and
7 see if over the lunch hour -- I will undertake as well from
8 my end to see if I can identify this, obtain a copy of it.
9 But at the moment, I am reluctant to have the witness
10 questioned about a document which he has indicated he was
11 not aware, at least of the date of the letter, as earlier
12 questioned.

13 I have not seen this page before.

14 (Counsel for the Aamodts conferring.)

15 MR. CLEWETT: Very well. I have a few other
16 questions.

17 BY MR. CLEWETT (Resuming):

18 Q I believe in previous testimony in these hearings
19 in the main part of the hearings, on I believe the 12th of
20 February of this year, you appear to have addressed this
21 question and I would like to show you a page --

22 JUDGE MILHOLLIN: This is incomprehensible. What
23 question are you talking about when you say this question?
24 The question you are going to ask?

25 MR. CLEWETT: The question of the degree to which

1 open-book tests are acceptable procedure. I believe Dr.
2 Long addressed, in the prior hearings, the letter from Mr.
3 Collins to Mr. Hukill and referred to plant procedure 1006.
4 And I wanted to ask him as to whether it was his
5 recollection that that procedure had been changed such that
6 weekly requalification quizzes would always be closed-book
7 format.

8 MR. BLAKE: Weekly qualification quizzes?

9 MR. CLEWETT: The weekly quizzes that could go
10 toward the requalification of operators.

11 BY MR. CLEWETT (Resuming):

12 Q If I may, Dr. Long, I would like to show you page
13 12,740 from the transcripts of these proceedings.

14 (Counsel handing document to parties and witness.)

15 JUDGE MILHOLLIN: Do you have copies for the
16 parties and for me?

17 MR. CLEWETT: I'm afraid I do not have multiple
18 copies of this. I would just like to refresh Dr. Long's
19 recollection on this question and ask him whether he
20 remembers having made a change in that procedure.

21 (Pause.)

22 (Witness reviewing document.)

23 BY MR. CLEWETT (Resuming):

24 Q My question is whether in light of your earlier
25 testimony, whether you recollect having made a change to

1 AP-1006 such that quizzes would need to be in the
2 closed-book format.

3 A As I told you, I do not now at this point in time
4 remember whether or not that change was made. My testimony
5 in February was that it has been made, and it states in my
6 testimony that that procedure now reads that quizzes shall
7 be administered in the closed-book format.

8 I assume that is still correct, but I cannot tell
9 you that it is because I have not looked at AP-1006 since at
10 least February.

11 Q But it is your testimony that some -- that at
12 least upon occasion tests like that are, as a practical
13 matter, now given in the open-book format?

14 A No, I think that is a misinterpretation of what I
15 said.

16 Q Oh, all right.

17 A You asked me whether I thought some tests or
18 quizzes might be administered in an open-book format, and I
19 said yes, that is possible. I was not referring to any
20 specific kind of test or quiz.

21 Q Very well. On page 25 you refer in paragraph 4,
22 the paragraph numbered 4, to the maintenance of 100%
23 proctoring. By that you mean that a proctor would always be
24 in the room?

25 A Yes, I do.

1 Q Would that necessitate having two proctors
2 available in case one had to leave for any reason for brief
3 intervals? Or how would that be dealt with?

4 A If the exam were a long exam what it would require
5 is that the individual proctoring the exam would have to let
6 somebody know that they might need relief at some point in
7 the exam and to come in and relieve them.

8 Q On the following page in the paragraph numbered 6
9 you refer to the requirement that misconduct be immediately
10 reported to training supervisory personnel. Have there been
11 any examples so far of anyone who has done that, to your
12 knowledge?

13 A No, there have not. Not since the new procedures
14 have been put in place in the third week in October.

15 Q On page 28 in the first paragraph, you refer to a
16 number of prohibited activities such as possession or use of
17 substances which alter mental or physical capacity, and
18 gambling and the use of profane language. Are you aware of
19 any instances of such activity?

20 A I am certainly aware, without knowing any details
21 at all, I am aware of some instances where people have been
22 disciplined for having beer in the trunk of their car or
23 that kind of thing. I know there have been some incidents
24 of that type but I do not know any details about it.

25

1 Q Have you heard statements to the effect that
2 operators are bitter about having to retake NRC examinations
3 repeatedly?

4 A I guess I cannot say that I have heard directly
5 the word "bitter." Certainly, I am aware of statements that
6 operators are indeed frustrated and I have sat, and listened
7 to them express some of their frustrations at time.

8 Q What steps have you taken to counter that sort of
9 attitude?

10 JUDGE MILHOLLIN: Off the record.

11 (Discussion off the record.)

12 THE WITNESS: I am sorry, sir, could I have the
13 question repeated?

14 BY MR. CLEWETT: (Resuming)

15 Q Yes. Have you taken any steps to counter this
16 attitude?

17 A I believe that the activities that are described
18 in another place in my testimony and those described by Mr.
19 Arnold and Mr. Hukill in their written testimony are
20 directed at least in part towards that concern, of talking
21 with all the individual, expressing our company's concern
22 that we meet the requirements that have been imposed on us
23 and that we do those as directly and effectively as we can.
24 So I think those efforts are directed at that concern, yes.

25 Q When Messrs. Newton and Brown appeared, they

1 introduced Licensee's Exhibits 60, 61, and 62, which had
2 previously designated Attachments 1, 2, and 3. I understand
3 from the statement of Mr. Blake yesterday that these were
4 not offered with regard to the substantive aspects of
5 training but to the question of whether techniques are
6 adequate, so that the goal of the training cannot be
7 circumvented by, for example, cheating.

8 And I would like to show you these attachments,
9 these exhibits, and ask you to indicate which portions of
10 them address the question of the technique of training such
11 that the goal of the training cannot be circumvented, if you
12 could do that briefly.

13 Do you have these already?

14 A Yes, I have. I have.

15 Q Did you -- beginning perhaps with Licensee Exhibit
16 60, could you indicate what aspects of that bear on the
17 question of the adequacy of the techniques to avoid
18 circumventing the goal of the training?

19 A Excuse me, can you tell me which one is Licensee
20 Exhibit 60? Is that Attachment 1?

21 Q Yes.

22 A Again, Mr. Newton certainly is much more familiar
23 with these, in that he works with them daily. I was
24 involved in reviewing them at the time they were drafted.
25 It seems to me that the section on evaluation criteria

1 addresses partly that issue of our concern of how we do the
2 evaluation and whether or not it is done in such a way that
3 we can believe in the results of that evaluation.

4 That evaluation criteria section, which is on page
5 10 through 12, does set out a number of different
6 requirements for administration of the evaluation process,
7 both in written examinations and on-the-job training.

8 MR. BLAKE: I should indicate here that these
9 documents were specifically identified yesterday and put
10 into evidence at the time that Mr. Newton was here. And my
11 recollection is not a single question was asked of the
12 witnesses who were here at the same time these exhibits were
13 put in.

14 MR. CLEWETT: As we have evaluated these documents
15 further, we continue to have some concern that it may turn
16 out down the line that these documents are used to support
17 findings which go to the substance of training rather than
18 issues directly related to cheating. And we would like to
19 take such steps as we can to ensure that this is not the use
20 that will be made of them.

21 Since we are not permitted to adduce any evidence
22 or engage in any cross examination bearing on the substance
23 of training, we are reluctant to see others introduce
24 documents which could be used to address those subjects that
25 are off limits to us.

1 MR. BLAKE: I have two observations. One is the
2 documents were provided on November 3, and I do not know
3 what recent reflection here within the last 24 hours may
4 have given the Aamodts -- what is a view that I have heard
5 for the first time -- a concern on their part.

6 Second, I would indicate that that is precisely
7 the reason that I made the observation that we did when we
8 were putting in the exhibits. And as part and parcel of that,
9 I think in terms of findings, that the Special Master is
10 perfectly capable of indicating what findings are within or
11 without the scope of the proceeding at the time that they
12 are submitted.

13 MR. CLEWETT: For the record, we would object to
14 these exhibits. They do appear to go to these other
15 issues. So we would like to note our objection for the
16 record.

17 JUDGE MILHOLLIN: So you object to the receipt of
18 exhibits, of Licensee's Exhibits Number --

19 MR. CLEWETT: 60, 61, and 62.

20 JUDGE MILHOLLIN: On the ground that?

21 MR. CLEWETT: On the ground that they address
22 questions that go well beyond the issues of these
23 proceedings; specifically, the substance of training.

24 MS. SWARTZ: It is my understanding that these
25 exhibits were put into evidence, received into evidence

1 making certain that all the operators were able to get the
2 required training.

3 Q Would that have related to the incident involving
4 Mr. VV?

5 MR. BLAKE: Excuse me. I see this neither within
6 the witness' testimony nor do I see it in the Aamodt trial
7 plan, the incident involving Mr. VV. It strikes me as
8 totally outside the scope of this witness' testimony.

9 JUDGE MILHOLLIN: Do you want to ask him about
10 attendance problems, and you want to ask him whether VV had
11 an attendance problem? Is that what you wanted to ask?

12 MR. CLEWETT: I was asking whether that was the
13 incident he was referring to or were there others.

14 JUDGE MILHOLLIN: He said there had been
15 attendance problems.

16 MR. CLEWETT: I am wondering whether he has any
17 particular --

18 JUDGE MILHOLLIN: Does he know whether VV's
19 attendance was one of those problems; is that what you want
20 to ask him?

21 MR. CLEWETT: I am wondering if his recollection
22 of problems is limited to the case of Mr. VV or if it goes
23 beyond that?

24 JUDGE MILHOLLIN: You can ask him that.

25 MR. BLAKE: I think we ought to first establish

1 whether Dr. Long was the head of the training department at
2 that point or was involved in training.

3 JUDGE MILHOLLIN: Well, he can say he does not
4 know.

5 BY MR. CLEWETT: (Resuming)

6 Q Do you know whether there were any attendance
7 problems in particular with the OARP?

8 A Again, that was prior to my having training
9 responsibility. To the best of my knowledge, there were not
10 problems in the sense that people were really upset and
11 having to write memos and having to put a lot of pressure in
12 getting people to attend training. But I just do not know
13 the details of that time period.

14 Q Do you recall what time period or what the general
15 nature of the problems was that you were referring to?

16 MR. BLAKE: He has already indicated generally the
17 time period. He characterized it as around the time of the
18 accident.

19 JUDGE MILHOLLIN: He has responded to the question
20 concerning the time period. He said that he was aware that
21 there were general attendance problems. Now your question
22 is whether he has more specific knowledge of those
23 problems?

24 MR. CLEWETT: Yes.

25 THE WITNESS: No, sir, I do not.

1 MR. CLEWETT: Very well. We have no further
2 questions.

3 MR. ADLER: I have two questions of Dr. Long.

4 BY MR. ADLER:

5 Q Dr. Long, in your opinion, are the requirements
6 for natural circulation the type of educational subject that
7 a qualified reactor operator should understand as a concept
8 or memorize?

9 A If I understand the question you are talking
10 about, there are specific requirement and plant procedures
11 and specifications that dictate when and under what
12 conditions natural circulation should be used. Is that what
13 you are referring to.

14 Q I am referring to the physical requirements in the
15 reactor coolant system for obtaining natural circulation.

16 A Okay. If you are going to go in natural
17 circulation, you have to understand certain conditions that
18 must exist to assure that you are going to get natural
19 circulation. Some of those are specified as certain
20 temperature differences that may have to exist, certain
21 systems which may have to be active or inactive. Those
22 kinds of things are basically memorized.

23 It is equally important to understand why those
24 conditions have been imposed, and that would be part of the
25 training, and that is part of the cognitive process that --

1 that the reason for a certain temperature difference is to
2 assure that the flow occurs. So that there is some of
3 both..

4 Q My second question relates to pages 12 and 14 of
5 your testimony. On page 12 you testify on the reexamination
6 process, the goal of the reexamination process -- excuse me
7 -- to foster the requisite understanding of the operators in
8 previously deficient categories.

9 On page 14 of your testimony you give the opinion
10 that although some coaching for examinations is necessary in
11 any educational process, you do not believe that your
12 training program coaches the operators for the examination.

13 Now, we have testimony that the procedure that was
14 used to administer the Category T examinations in November
15 of this year was as follows: There was a 3-1/2 hour review
16 session, during which handout materials were given to the
17 students; followed by a one-hour study session; followed by
18 the examination.

19 My question is whether, in your opinion, that
20 procedure furthers the concepts as stated on pages 12 and 14
21 of your testimony?

22 (Pause.)

23 A First off, I cannot confirm from my own knowledge
24 whether or not what you just described as the procedure was
25 the procedure. As I already mentioned, I believe, I am not

1 familiar with the detailed Category T process.

2 Q I would ask you for now simply to assume that
3 those procedures were followed. The reference is to page 2
4 of the supplemental testimony given by Mr. Brown yesterday.

5 MR. BLAKE: I think a fair reference might also be
6 to Mr. Brown's oral testimony yesterday, where that same
7 question was asked of him and he responded. I would be
8 happy to give my recollection of it if you desire.

9 MR. ADLER: I am trying to get the independent
10 expert opinion of your witness.

11 MR. BLAKE: I understand. But he ought to be
12 presented with all of the facts.

13 MR. ADLER: I do not believe that any additional
14 relevant facts were given by Mr. Brown. If they were, I
15 apologize, and you can give your recollection of them.

16 MR. BLAKE: Well, then, I will. My recollection
17 was that he said in fact what you have indicated took place,
18 and he also referenced the fact that this subject had been
19 around for several years and that they had gone through a
20 lot of training and that this review session which he held
21 he regarded as just that, a recap of procedures which they
22 had been trained on over a several-year span.

23 THE WITNESS: I -- as I was thinking through the
24 process, I would suggest that that is indeed what I would
25 have to say about the Category T. The Category T was a

1 TMI-2 accident lesson learned. That material has been
2 taught in a number of ways. It is incorporated, and I think
3 I have testified in the past, in many aspects of the
4 training program where it is not specifically identified as
5 TMI-2 material.

6 Remember that these individuals basically are
7 asked to do their study on company time, so that that
8 process of handing the review, of studying, is part of
9 getting them ready. And as I mentioned, I think, earlier
10 today, the topic material, the content is well known, so
11 that they would have been working for sometime on
12 anticipating what kinds of things would be asked.

13 BY MR. ADLER: (Resuming)

14 Q What was the purpose of the November Category T
15 examinations? To determine whether the concepts related to
16 the TMI-2 accident were known? You seem to be assuming that
17 as a given.

18 A I think I assume it as a given because it has been
19 such a major part of the training since the accident. We
20 began training on it within a month after the accident,
21 specific training on the simulator. So that it was being
22 evaluated in a number of ways, and the NRC examination
23 addresses TMI-2 accident lessons learned.

24 So there has been many, many ways of evaluating
25 that. Category T was one specific one that came about

1 through the circumstances that all the parties in this
2 hearing are familiar with.

3 Q Well, let me ask the question in this way: If
4 your goal is to try to examine, to test the understanding of
5 a group of students on particular subject matter, do you
6 believe that the appropriate and accurate measure of that
7 understanding is accomplished by having a 3-1/2 hour review
8 session with that material, an hour to study, and then an
9 examination?

10 A I believe that that is a satisfactory way to do
11 that. It may not be the best way, but it is a satisfactory
12 way.

13 MR. ADLER: Thank you.

14 (Pause.)

15 BY MS. SWARTZ:

16 Q Dr. Long, I am Lucy Swartz. I represent the NRC
17 Staff in this proceeding.

18 The first question I have for you goes to some
19 statements you made on page 20 of your testimony regarding
20 the RWT training and examinations. What are the specific
21 requirements to obtain an RWP sticker on a badge at TMI-1?

22 A At the present?

23 Q At the present time.

24 A The first step is complete general employee
25 training, which all employees have to take. And that is a

1 four- to eight-hour training session.

2 The next step is to complete the RWP training,
3 which I believe at the present time is eight to twelve
4 hours. The RWP training goes into the detailed knowledge
5 that is required of people who are going to work in
6 radiation work permit control areas.

7 Individuals have to have a physical exam, and I
8 believe that they are all required to be fitted for
9 respirators, but I could be wrong. Some who may not have
10 any need to work in respirator areas may not have a
11 requirement to wear one..

12 Q Do you know what the requirements were as of April
13 '79?

14 A Basically, they were the same. The individuals
15 had to satisfactorily complete both GET, RWP, the respirator
16 fit -- oh, I left out one thing, they had to have a
17 whole-body count. They did in '79, and they do now. If
18 they are going to be radiation workers. They also have to a
19 whole-body count.

20 Q It seems to me from your testimony -- perhaps I
21 misread it -- that in order -- I am referring to the middle
22 paragraph on page 20 -- it seems to me that what was said
23 was that to obtain an RWP sticker you needed GET training,
24 successful completion of that training, and RWP training and
25 successful completion of that, and nothing else, in order to

1 get an RWP sticker on a work badge at TMI. Am I mistaken?

2 A Yes. That is the only training required. The
3 other several things -- the respirator fit, the whole-body
4 count, and the physical exam -- are not training, but those
5 are also required to be issued an RWP. But they are not
6 training functions.

7 Q Does your testimony not say that the other things
8 you mentioned -- the whole-body count, the physical
9 examination, the fit with a respirator -- are necessary to
10 get into other areas but are not necessary just to get an
11 RWP sticker on your badge, but they are necessary to pass
12 through a control point, as you say in your testimony?

13 A When you ask me does my testimony say that, let
14 me read just a minute.

15 (Pause.)

16 Perhaps the risk -- I can see where you might be
17 confused about the way the testimony is worded.

18 What I was trying to say is that issuance of an
19 RWP does not automatically permit somebody to go into a
20 radiation controlled area, that there still has to be on the
21 work pyramid a list of people who are going to be going in
22 and that you have to have a reason for going in there; that
23 simply, for example, for a long time I had an RWP-certified
24 badge, I do not at the present time.

25 But I would not have been allowed to just walk

1 into the plant and walk into a radiation controlled area
2 unless I had been checked and verified that I was supposed
3 to be there, had a need to be there, was going to be
4 performing a work function or a management function.

5 JUDGE MILHOLLIN: What is the relevance of this
6 line of inquiry? Is there simply an esthetic interest in
7 the record?

8 MS. SWARTZ: No, certainly not. I do not
9 understand his testimony. I am not sure at this point that
10 I do. My understanding of his testimony reading it the way
11 I read it is one way and he has explained it to me a
12 different way. I assume if I do not understand it, there
13 could be other people who do not understand it, including
14 the Special Master, and I would like the record to be
15 clear.

16 JUDGE MILHOLLIN: What relevance does a possible
17 misunderstanding have to the issues in this case?

18 MS. SWARTZ: It has to do directly with the
19 testimony of Mr. Williams, who is asserting that the
20 Licensee did not take the proper precautions when he was
21 assigned to the Three Mile Island site, which is an issue in
22 this proceeding.

23 JUDGE MILHOLLIN: By "take the proper
24 precautions," you mean other than the examination
25 experience?

1 MS. SWARTZ: Yes.

2 JUDGE MILHOLLIN: Well, the witness has answered
3 several questions. How much longer are we going to probe
4 whether your understanding is different from his?

5 MS. SWARTZ: Not very long.

6 (Counsel for the NRC Staff conferring.)

7 BY MS. SWARTZ: (Resuming)

8 Q Is the RWP sticker on a badge an indication of
9 successful completion of the training and the examination
10 which occurs after the training?

11 A Yes, in that you have had the other requirements
12 met as well. The RWP is added to the badge at the time the
13 badge is issued. And my recollection, particularly in the
14 '79 period, there was a checklist which you went down and
15 identified what had to be done before you went to security
16 to have the badge issued. And when you completed the
17 checklist, they issued you the badge.

18 Q Fine. Thank you.

19 (Counsel for NRC Staff conferring.)

20 I have two other questions for you based on cross
21 examination. You were asked a question regarding open-book
22 format. Do you know of any specific instance since the
23 TMI-2 accident in which an open-book format was used for an
24 examination at TMI-1?

25 A No, I do not.

1 Q You were also asked regarding steps you might have
2 taken concerning the attitude of reactor operators at the
3 site. Do you consider it part of your responsibility in
4 your job to monitor the attitude of reactor operators?

5 A I think I do, in that the training people at both
6 of our sites are in regular contact with the operators and
7 they do provide feedback as to what is going on in terms of
8 their feelings and attitudes and those -- that feedback is
9 relayed both to myself as well as to the operations
10 personnel on the respective sites.

11 MS. SWARTZ: That is all the questions I have.
12 Thank you.

13 (Pause.)

14 JUDGE MILHOLLIN: I have a few questions, perhaps
15 only one.

16 EXAMINATION BY THE SPECIAL MASTER

17 BY JUDGE MILHOLLIN:

18 Q Are you familiar with the availability of prior
19 examinations from the administrative support section at the
20 training department? Are you familiar -- could you answer a
21 question about that? Do you know about that?

22 A I know a little about it, but I do not know the
23 details of how they -- you know, which -- where they file
24 the exams, that kind of thing.

25 Q Do they keep a file of prior exams, NRC exams?

1 A Yes, sir.

2 Q They do?

3 A Yes.

4 Q Do they keep a file of prior company exams?

5 A How do you mean "company exams"?

6 Q I am sorry. Examinations previously administered
7 by the Licensee, by the training department.

8 A We keep a file of the exams that we have
9 administered, and those exams, both the questions as well as
10 the student responses, are all required by law to be kept on
11 file.

12 Q Are those available to trainees?

13 A I think it is certainly likely that of all the
14 different kinds of tests and quizzes we give, that the
15 trainees may have access to some past exams, quizzes,
16 tests. In some cases, they are provided with sample
17 questions that are taken from past tests specifically to
18 guide their study.

19 Q Are there any restrictions on access by trainees?

20 A Yes. The trainees certainly cannot go into the
21 administrative record group and say, "I want to look at the
22 test from such-and-such a date." Both in past practice and
23 as delineated in this procedure, which was Exhibit 73,
24 indicate that the instructors are the only ones who have
25 access to the examinations.

1 Q I am thinking now of the past. That is, has there
2 been a practice of making the examinations available to
3 trainees?

4 A Not -- not unless the instructor did it to all of
5 them. Certainly, there was nowhere that the trainees could
6 go to the records section and get access to exams or quizzes
7 on an individual basis.

8 Q So your testimony is that these were available to
9 the trainees only through the intermediary of an
10 instructor?

11 A Yes, sir.

12 JUDGE MILHOLLIN: Thank you. That is all I have.

13 MS. BRADFORD: I have just one question.

14 JUDGE MILHOLLIN: You realize you passed up your
15 chance to ask any cross examination?

16 MS. BRADFORD: This is a follow-on question.

17 CROSS EXAMINATION -- Resumed

18 BY MS. BRADFORD:

19 Q Dr. Long, my name is Louise Bradford. I represent
20 TMIA.

21 In response to a question from Mr. Clewett, you
22 said that if an examinee had repeatedly failed in one area
23 -- excuse me, you said if an examinee had failed twice in
24 one area, then that examinee was reviewed. And I believe
25 you said he was counseled. I am not sure if that was what

1 you said. But you did say that his attitude was reviewed.

2 Is that correct?

3 A I do not know whether I specifically said his
4 attitude. I said an evaluation of his performance was made,
5 which certainly included what kind of things might have
6 contributed to his failure on two successive examinations of
7 the same material. One of the factors that would be looked
8 at would be the individual's attitude.

9 Q Have you interviewed Mr. H?

10 A No, I have not.

11 Q Has anyone in the training department interviewed
12 Mr. H?

13 A That I do not know. In terms of an interview, I
14 just do not know.

15 Q Could you tell me how long this policy has been in
16 effect?

17 A It has certainly been the practice since early
18 1980 when I became director of training and education.

19 MS. BRADFORD: Thank you. I have no more
20 questions.

21 MR. BLAKE: I do not at this point have any
22 redirect for Dr. Long, although I would like an opportunity
23 to think about that over lunch break. We are close to noon,
24 in any event, and I am not aware that there are any other
25 witnesses.

1 JUDGE MILHOLLIN: Perhaps I could bring -- Dr.
2 Long, thank you, you are excused.

3 (Witness excused.)

4 JUDGE MILHOLLIN: I would like to bring up a
5 point. The attendance or nonattendance at training has been
6 an issue discussed on several occasions. I take it the
7 record does not contain any data on that subject at the
8 present time; is that correct?

9 (Counsel for the Licensee conferring.)

10 MR. BLAKE: I do not think the record does. Of
11 course, Mr. Newton when he was here had available with him
12 that chart that gave numbers of hours and attendance by
13 individuals.

14 JUDGE MILHOLLIN: As I recall, he said that those
15 were scheduled but not actually --

16 MR. BLAKE: He had the actual as well. What he
17 did not have was individuals as a function of specific
18 subject matters. But he had total hours for individuals
19 and, in fact, I think what he said was he could compare both
20 the actual with the time that would have been available to
21 the individual from the training department.

22 So I guess information exists and must exist
23 readily, but at this point I do not think that there are
24 statistics in the record on attendance.

25 JUDGE MILHOLLIN: Is it voluminous material?

1 MR. BLAKE: I do not know the answer. I would not
2 expect so, at least in summary form and for a period of time
3 like the last year or so.

4 JUDGE MILHOLLIN: That may be a good candidate for
5 a chart which could simply be made an exhibit.

6 MR. BLAKE: I will look into that over the lunch
7 hour.

8 JUDGE MILHOLLIN: Any other matters? We could
9 break early for lunch.

10 MR. GOLDBERG: I have an additional matter. We
11 have talked to or communicated indirectly with some of our
12 witnesses. The current plan is to have Mr. Resner here
13 today at approximately 3:00 o'clock, so that he will be
14 available to testify today after Mr. Williams. If we do not
15 get to Mr. Resner today -- and I think we have all agreed it
16 is going to be a very short examination of Mr. Resner, he
17 could stay over and be available 9:00 o'clock tomorrow
18 morning.

19 Mr. Crocker will be here tomorrow morning and
20 available to testify at 9:00 o'clock or immediately after
21 Mr. Resner if Mr. Resner testifies at 9:00 o'clock.

22 In addition, Mr. Collins will be here tomorrow.
23 He will be arriving between 9:00 and 10:00 so that he can
24 testify following Mr. Crocker.

25 JUDGE MILHOLLIN: We stand adjourned for lunch

1 until 12:45.

2 MR. BLAKE: If I might ask, and in order to allow
3 the time for Mr. Williams, if we could set it at 1:00, I
4 would appreciate that, Judge Milhollin.

5 JUDGE MILHOLLIN: I am sorry, yes, you did say you
6 needed extra time to prepare. Do you think you need -- and
7 I did set the lunch break without remembering that. Do you
8 think you need more time?

9 MR. BLAKE: I would like to shoot for 1:00
10 o'clock. I will be here and make every -- I think I can be
11 ready by 1:00 o'clock.

12 JUDGE MILHOLLIN: All right. If you can be ready
13 by 1:00, you can report that. So we will reconvene at 1:00
14 o'clock.

15 (Whereupon, at 11:50 a.m., the hearing was
16 recessed, to reconvene at 1:00 a.m., this same day.)

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AFTERNOON SESSION

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(1:08 p.m.)

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JUDGE MILHOLLIN: The hearing will come to order.

4

MR. BLAKE: Judge Milhollin, before lunch I indicated that with respect to Dr. Long, I did not think I had any redirect, but I would like an opportunity to consider it over lunch.

8

The reason I asked that was because I, like the NRC staff, was confused by Dr. Long's testimony as well, with respect to the questions that staff counsel asked him. And I would like an opportunity to clear that up with Dr. Long. It ought only to be a couple of questions.

13 Whereupon,

14

ROBERT L. LONG

was recalled as a witness by counsel for the licensee and, having been previously duly sworn, was examined and testified further as follows:

18

JUDGE MILHOLLIN: Dr. Long, you have been previously sworn; consider yourself still under oath.

20

THE WITNESS: Yes, sir.

21

REDIRECT EXAMINATION

22

BY MR. BLAKE:

23

Q Dr. Long, you were asked several questions about RWP training and RWP stickers. Your testimony was confusing to me. As the staff counsel indicated, they were confused.

1 Is your prepared testimony, written testimony, correct as
2 stated?

3 A Yes, it is.

4 Q It indicates in your written prepared testimony
5 that in order to get an RWP sticker, Mr. Williams had to
6 have completed courses and an examination. Is that all that
7 would have been necessary for Mr. Williams to have gotten an
8 RWP sticker?

9 A Yes, that is correct.

10 Q In responding to some of the staff counsel's
11 questions, you indicated, I thought, that as well, Mr.
12 Williams in order to get an RWP sticker would had to have
13 undergone a whole body count and been fitted for a
14 respirator. Are those two necessary for Williams in April
15 of 1979 to have received an RWP sticker?

16 JUDGE MILHOLLIN: I am sorry, I did not hear the
17 question. Are those what?

18 BY MR. BLAKE (Resuming)

19 Q Were those necessary in April of 1979 for Mr.
20 Williams to have received an RWP sticker?

21 A No, they were not, and that is where I was
22 confused this morning, and I am sure, confused the record.
23 And I think what happened to me was I kind of got triggered
24 on my own emotional response to the accident, which
25 sometimes happens to all of us, and was remembering, as I

1 referred when Ms. Swartz was questioning me, a process that
2 I went through about the fourth day of the accident, in
3 which I had gone down a checklist.

4 And over the lunch hour I verified with people in
5 Training and with an independent person that the process as
6 described in my testimony on page 20 is the process that was
7 being followed in the latter part of April 1979.

8 Q That is, you were confused because you underwent
9 RWP training and received a sticker yourself during that
10 timeframe?

11 A Yes, during -- within the first week of the
12 accident, on the fourth or fifth day of the accident
13 scenario, I went through the training to get my RWP and
14 followed the checklist, and I think that is what --

15 Q Including respirator fit?

16 A Yes.

17 Q But as of April 28th, it is your understanding
18 that the requirements for Mr. Williams would not have
19 obligated him to have had either respirator fit or a whole
20 body count in order to get an RWP sticker?

21 A That is correct.

22 MR. BLAKE: Thank you.

23 MR. CLEWETT: Judge Milhollin, may I ask one or
24 two questions following on?

25 JUDGE MILHOLLIN: Yes.

1 RE-CROSS EXAMINATION

2 BY MR. CLEWETT:

3 Q Dr. Long, could you be more specific as to who it
4 was that you got this information from over the lunch hour
5 about what the requirements would have been at that time?

6 A Yes, I confirmed it with Mr. Richard DuBiel, who
7 was the health physicist at the time.

8 Q But these other items such as respirator fit and
9 the whole body count were on the same checklist as the
10 radiation work permit test, is that correct?

11 A Yes, they were on the checklist, right, but they
12 were not required for putting the RWP sticker on the badge.

13 Q Were they required for any other reason?

14 A They were required because people were expecting
15 to go into a work area requiring an RWP. They had to have
16 an RWP sticker on their badge to verify they had been
17 through the training and they had to have, as indicated in
18 the testimony, a TLD current whole body count on record and
19 a current physical on record.

20 Q Were there separate stickers for having finished
21 those?

22 A No, those were not indicated by stickers.

23 Q So there would be no way of knowing if someone had
24 fulfilled those requirements by virtue of looking at the
25 badge or anything like that.

1 A By virtue of looking at the badge, that would have
2 not been known.

3 Q Do you have any idea why those were not -- why
4 those would not have been required as part of the process
5 for getting an RWP sticker?

6 A Yes, because the RWP was certification of the
7 training, not the certification of the all the requirements
8 imposed by the plant for working in the RWP areas.

9 Q So that the permit itself had nothing to do with
10 whether a person could fit his respirator?

11 A That is correct.

12 JUDGE MILHOLLIN: We have the permit and the
13 sticker and the training and the other requirements. I am
14 not sure I understand how they all fit together, but I have
15 faith that after we hear the next witness and all the cross
16 examination, that it will eventually emerge and that I will
17 understand it.

18 BY MR. CLEWETT (Resuming):

19 Q I guess your testimony is clear on this point as
20 to what you are saying, Dr. Long. I have no further
21 questions.

22 MS. SWARTZ: May I ask a follow-on question? It
23 is only one.

24 BY MS. SWARTZ:

25 Q Is it your understanding that it is general

1 knowledge for the employees and contractors at the TMI site
2 that completion -- that the only thing that is necessary for
3 an RWP sticker on the employee's badge, the only requirement
4 for that sticker is completion of the RWP training?

5 A Are you talking about at the time of April 1979?

6 Q Yes.

7 A No, I am not sure that the employees would have
8 understood that difference in that they were told you --
9 they were sent to the RWP training to prepare them to work
10 in an RWP area, and they were told to in order to be ready
11 to work in an RWP area, you would have to complete the list.

12 I would be surprised if somebody explained to them
13 that there were separate certifications; one which included
14 the training and the others were not really part of the
15 certification.

16 MS. SWARTZ: Thank you, that is all I have.

17 JUDGE MILHOLLIN: Thank you, Dr. Long.

18 (Witness Long was excused.)

19 MR. CLEWETT: Judge Milhollin, at this point we
20 would like to call as a witness Mr. Harry Williams.

21 Whereupon,

22 HARRY E. WILLIAMS, Jr.

23 was called as a witness by counsel for the Aamodts and,
24 after being first duly sworn, was examined and testified as
25 follows:

1 DIRECT EXAMINATION

2 BY MR. CLEWETT:

3 Q Mr. Williams, I show you a document which is
4 entitled "Aamodt Testimony of Mr. Harry E. Williams, Jr."
5 which consists of a cover page and four pages following
6 that. And I ask whether this document was prepared under
7 your supervision.

8 A Yes, it was.

9 Q Do you have any corrections to make to this
10 document?

11 A No, there are no corrections to be made to this
12 document.

13 Q Do you adopt this as your testimony?

14 A Yes, I do.

15 MR. CLEWETT: Judge Milhollin, I would move that
16 this be incorporated physically into the transcript as if
17 read.

18 MR. BLAKE: Judge Milhollin, I would like to
19 conduct some voir dire before you accept this testimony, and
20 depending upon my voir dire, I may move that this testimony
21 not be accepted.

22 JUDGE MILHOLLIN: Very well, proceed.

23 VOIR DIRE

24 BY MR. BLAKE:

25 Q Mr. Williams, my name is Ernest Blake, I represent

1 the licensee in this proceeding.

2 JUDGE MILHOLLIN: Mr. Blake, before we go on, I
3 assume, Mr. Clewett, that the witness is now available for
4 cross examination.

5 MR. CLEWETT: You have indicated that you would
6 allow Mr. Blake some voir dire before he determines whether
7 he is going to object. I had planned on saying the witness
8 was available for cross examination after this was accepted
9 on the record. But --

10 JUDGE MILHOLLIN: All right. I was just
11 ascertaining whether you have anything else that you want to
12 ask him before voir dire begins. I take it the answer is no.

13 MR. CLEWETT: I do not have any further direct
14 examination.

15 JUDGE MILHOLLIN: Very well.

16 BY MR. BLAKE (Resuming)

17 Q Mr. Williams, you are 28 years old?

18 A Yes, sir.

19 Q You graduated from high school in 1972?

20 A Yes, sir.

21 Q Did you attend college?

22 A No, sir.

23 Q Did you take any college courses?

24 A Yes, sir.

25 Q Without attending college?

1 A Well, I went to -- I took an FCC license course at
2 Mt. Diablo Community College in California.

3 Q When was that?

4 A That was in 1973.

5 Q How long was that course?

6 (Pause.)

7 MR. CLEWETT: Did the witness hear the question?

8 BY MR. BLAKE (Resuming)

9 Q How long was that course?

10 A Oh. It was about four to six weeks long.

11 Q Full time? That is, eight hours a day, or four
12 hours a day of --

13 A No, it was just a couple of nights a week.

14 Q When did you enlist in the Navy?

15 A March 28, 1972.

16 Q Were you honorably discharged from the Navy on
17 October 20, 1977?

18 A Yes, sir, I was.

19 Q How long then were you in the Navy?

20 A Active duty was from March of 1972 to, you know,
21 October 20 of 1977; then after active duty, I joined two
22 years of the Naval Reserves.

23 Q Naval Reserves were full time?

24 A No, sir.

25 Q Occupation?

1 A It was only week in the month.

2 Q During your period of time in the Navy, you served
3 onboard ship?

4 A Yes, sir.

5 Q What ships?

6 A Only one, a helicopter carrier, the U.S.S.
7 Guadalcanal, LPH 7.

8 Q What position did you hold onboard that ship?

9 A Communications supervisor.

10 Q In your view, is that an important position?

11 A Yes, sir, it was.

12 Q How long were you onboard that ship?

13 A Almost two years.

14 Q Were you knowledgeable about the surroundings
15 onboard that ship?

16 A Yes, sir, I was.

17 Q How was that ship powered?

18 A It is diesel powered; it is powered by oil fuel.

19 Q How many jobs have you held in the past four years
20 since you were discharged from the Navy in October 1977?

21 A Well, I have only held a few.

22 Q A few, did you say?

23 A Yes, sir.

24 Q Would you describe those jobs, please, including
25 the approximate dates of employment and the reason or

1 reasons why you left each job?

2 A Well, I was with Roadway Express from January 1978
3 to March of 1978, and I was laid off from that job. From
4 there I went -- I did not have any employment. For a while
5 I was drawing unemployment compensation, and from there I
6 went to --

7 Q I am sorry, and the length of time?

8 A It was only three months.

9 Q Three months. That was three months of
10 unemployment?

11 A No. Three months of employment with Roadway
12 Express from January to March. Then I did not have any
13 employment for sometime. Then I went with -- went to Elby's.

14 Q I am sorry, how much time was the enemployment
15 between Roadway and Elby's?

16 A I do not know. It was a considerable amount of
17 time?

18 Q Years?

19 A No.

20 (Pause.)

21 About three months.

22 Q Thank you.

23 A From there, approximately around June of 1978 I
24 went to Elby's Restaurant. I worked at the one at Jonestown
25 Road in Harrisburg. I was a cook there. And then from

1 there I worked my way up to head cook. Approximately July,
2 I was transferred to another Elby's on the west shore on the
3 Lemoyne Street, and I was there until October of 1978.

4 Q And the reason that you left?

5 A Well, I had a falling out with the manager so I
6 left the job. Plus also, he says he dismissed me from the
7 job. Then from there I went -- I did not have any
8 employment at all. Then I went to MacDonalds in Middletown
9 on East Harrisburg Pike. I was there for a couple months
10 before I applied for the job at TMI.

11 Q I am sorry, the length of time or when you started
12 work at MacDonalds?

13 A I do not know. Approximately, it might have been
14 around -- I do not have any idea how long it was. It was
15 several months inbetween then -- between October 1978 and
16 until the time I went to TMI.

17 Q Let me understand you. You left Elby's in October
18 of 1978 is your testimony?

19 A That is right.

20 Q Then you were unemployed for some length of time.

21 A Yes, sir.

22 Q And then you went to MacDonalds for some length of
23 time.

24 A It was -- yes, sir, a very short length of time.

25 Q And then from there you went to TMI?

1 A Yes, sir.

2 JUDGE MILHOLLIN: From there meaning the
3 unemployed?

4 MR. BLAKE: That is what I -- that was what I
5 intended. The final "from there" was from MacDonalds, as I
6 understand his testimony, to TMI.

7 THE WITNESS: Yes.

8 BY MR. BLAKE (Resuming)

9 Q Do you recall when you applied for a job at TMI?

10 A Yes, sir, approximately towards the end of
11 December of 1979.

12 Q 1979?

13 A Excuse me, 1978.

14 Q How did you learn about that job at TMI, or
15 potential job?

16 A There was an ad in the newspaper advertising for
17 security guards to work at Three Mile Island.

18 Q And what did you do following that ad?

19 A It had a telephone number to call for more
20 information, so I called the number and applied -- you know,
21 inquired about the job.

22 Q And following that inquiry, the next step?

23 A I decided that I liked what they told me and I was
24 interested, so they gave me directions where to apply for
25 the job and I did so.

1 Q When did you report for work at TMI?

2 A Roughly, during the first few days of January 1979.

3 Q You reported to TMI for work during the first
4 couple of days in January?

5 A Right. You know, it was not actually work; it was
6 a two-week training period. I had to go through the
7 two-week training period before I was allowed to go out on
8 the job altogether.

9 (Counsel for licensee conferring.)

10 MR. BLAKE: I would like to distribute at this
11 point a document, and I will need to identify this through
12 the witness.

13 (Counsel distributing document to witness and
14 parties.)

15 (Witness reviewing document.)

16 BY MR. BLAKE (Resuming)

17 Q Mr. Williams, do you recognize this document that
18 you have been handed?

19 A Yes, sir.

20 Q Is the title that appears at the top "Application
21 for Employment"?

22 A Yes, sir.

23 Q Is its date January 16, 1979?

24 A Yes, sir.

25 Q Does this document appear to be your application

1 for employment at TMI in January of 1979?

2 A Yes, sir.

3 MR. BLAKE: Judge Milhollin, I would ask that this
4 document be identified as Licensee Exhibit 74.

5 (The document referred to was
6 marked Licensee Exhibit No.
7 74 for identification.)

8 JUDGE MILHOLLIN: So identified.

9 (Counsel for licensee conferring.)

10 BY MR. BLAKE (Resuming)

11 Q Mr. Williams, I direct your attention to page 3 of
12 Licensee Exhibit 74, about three-quarters of the way down
13 the page, the question that reads, "Have you ever been
14 dismissed or asked to resign from employment?" Do you see
15 that question on your job application? I am sorry, it is on
16 page 3.

17 A Yes, sir.

18 Q And what is the next word that appears?

19 A It says "No."

20 Q Is that your handwriting?

21 A Yes, sir.

22 (Pause.)

23 MR. BLAKE: I need to distribute one other
24 document.

25 (Counsel handing documents to witness and parties.)

1 (Witness reviewing documents.)

2 BY MR. BLAKE (Resuming)

3 Q Mr. Williams, the document that has just been
4 handed to you, the title at the top of the page is
5 "Application for Employment", the date April 3, 1978. Do
6 you see that?

7 A Yes, sir.

8 Q Do you recognize this document?

9 (Pause.)

10 A Not offhand, no.

11 Q Does the handwriting on this document appear to be
12 the same as the last document?

13 A Yes, sir, it is my handwriting.

14 Q You do not recall the document?

15 A No, sir. It has been such a long time.

16 Q If you would, please, look at the last page of the
17 document, about halfway down. Is that your signature where
18 it says Harry E. Williams, Jr.?

19 A Oh. Yes, sir.

20 Q Take a minute, if you would, please, Mr. Williams,
21 and see if you can refresh your memory by looking at this
22 document.

23 (Witness reviewing document.)

24 A Okay, I remember this document now.

25 Q And it does appear to be an application by you for

1 employment with Gregg Security dated April 3, 1978?

2 A Yes, sir.

3 MR. BLAKE: I would like to have this document
4 identified as Licensee Exhibit 75.

5 (The document referred to was
6 marked Licensee Exhibit No.
7 75 for identification.)

8 JUDGE MILHOLLIN: So identified.

9 BY MR. BLAKE (Resuming)

10 Q Had it slipped your mind in going through jobs
11 that you had applied for a job with Gregg in April 1978?

12 A Yes, sir.

13 Q Directing your attention to the answer listed in
14 the middle of page 1 of this document, you represented in
15 this document that you had three years' experience as a
16 store detective with W.T. Grant. Is that what that document
17 reads?

18 A Yes, sir. That was during high school.

19 Q Look at page 3 of the document, if you would,
20 please. Is this the same three -

21 MR. CLEWETT: Which document is this, now?

22 MR. BLAKE: This is Licensee Exhibit 75.

23 BY MR. BLAKE (Resuming)

24 Q Is this the same three years of Grants plain
25 clothes detective which you refer to in the middle of page 1?

1 A Yes, sir.

2 Q And does that appear under a column that says,
3 "Give complete employment record starting with your last or
4 present"?

5 A Yes, sir.

6 Q And some more instructions as well?

7 A Yes, sir.

8 Q Does it say, "Do not list occupations during high
9 school"?

10 MR. CLEWETT: I think it is pretty clear from
11 reading --

12 MR. BLAKE: You will stipulate that that
13 instruction does not appear, Mr. Clewett?

14 MR. CLEWETT: If we are talking about page 3 of
15 Licensee Exhibit 75 at the top of the page, I think it is
16 pretty clear that it does not say anything about high
17 school. Yes, we would stipulate to that.

18 BY MR. BLAKE (Resuming)

19 Q Directing your attention, Mr. Williams, to
20 Licensee Exhibit 74, the third page in that document, is the
21 form of this page similar to the third page in Exhibit 75?
22 That is, do the words "Employment record" appear at the top,
23 and otherwise appear the same?

24 A Are you talking about this document here?

25 Q I am talking about Licensee Exhibit 74 It might

1 help to have a pencil or pen.

2 A Yes, sir.

3 Q At the top of the document which is dated January
4 16, 1979, if you would just write Licensee Exhibit 74.

5 A Okay.

6 Q And then at the top of the document dated April 3,
7 1978, if you would write Licensee Exhibit 75.

8 A Okay.

9 Q Now, looking at Licensee Exhibit 74 on the third
10 page, do the instructions for providing employment record
11 there appear to be the same to you?

12 (Pause.)

13 A There is some similarity but, you know, they are
14 not identical.

15 Q I am sorry. The instructions at the top of the
16 document with regard to filling out past employment history
17 do not appear to you to be the same in these two documents?

18 A Yes, sir.

19 JUDGE MILHOLLIN: Yes, they do not appear to be
20 the same, or yes, they appear to be the same?

21 THE WITNESS: Yes, they do appear to be the same.

22

23

24

25

1 BY MR. BLAKE:

2 Q So your answer was that the employment history
3 which you gave on each of these are not the same.

4 A Yes, sir.

5 Q Yes they are not the same?

6 A Yes, they are not the same.

7 (Pause.)

8 Q Earlier when I asked you the question to provide
9 me with your employment history, you indicated that you had
10 worked at Elby's?

11 A Yes, sir.

12 Q And at Rodeway Express?

13 A Yes, sir.

14 Q And at MacDonald's?

15 A Yes, sir.

16 Q I think you also indicated that you had been
17 suspended because of a personal conflict, or in fact maybe
18 you indicated that your boss said you had been dismissed at
19 Elby's. Was that correct?

20 A Yes, sir.

21 Q Is that what your testimony was?

22 A Yes, sir. I had already quit my job prior to that.

23 Q Your recollection of the reason that you left
24 Elby's is because you quit?

25 A Yes, sir.

1 Q But your boss's recollection is that it was
2 because you were dismissed.

3 A Yes, sir. I quit, and my last work was
4 October '78. I went on two weeks active duty with the Naval
5 Reserve, and I had already quit prior to that. And when I
6 went back to get my last paycheck when I came back, he just
7 wanted to let me know I did not have a job there anymore;
8 but I had already quit prior to that. So I do not call that
9 being dismissed from the job.

10 (Counsel for Licensee conferring.)

11 THE WITNESS: Your Honor, can I add something to
12 my defense in this? I know what Mr. Blake is getting at.
13 Also important, on both copies it says: Have you ever been
14 dismissed or asked to resign from employment? The answer is
15 no. And that was answered in my best faith and it was never
16 challenged by Gregg Security.

17 So, you know, I said I answered in my best faith
18 and I still stand on that, that I was never dismissed from a
19 job. And it is on both applications. It was never
20 challenged by Gregg Security, so it should still stand

21 BY MR. FLAKE: (Resuming)

22 Q I direct your attention now in Licensee Exhibit 75
23 to page 2. Down near the bottom of that page, some five
24 lines or so from the bottom, appears an opportunity for an
25 applicant to fill out college, appears the word "college."

1 It appears you attended college from 1973 to 1974. Is that
2 what is written there?

3 A Yes, sir. That was the FCC course that I took.

4 Q This was the course which you earlier described as
5 being four to six weeks in length a couple of nights a week?

6 A Yes, sir. It started towards the end of one year
7 and went over to the new year.

8 Q On Licensee's Exhibit 74, at about the middle of
9 the first page you indicate you were available to start work
10 January 22.

11 A Yes, sir.

12 Q And you actually started somewhat earlier than
13 that.

14 JUDGE MILHOLLIN: I am sorry. Started work at
15 what?

16 BY MR. BLAKE: (Resuming)

17 Q You actually started somewhat earlier than that?

18 JUDGE MILHOLLIN: I am sorry, I am not following.
19 Starting at what position?

20 MR. BLAKE: Licensee Exhibit 74, page 1, about the
21 middle of the page: If hired, on what date would you be
22 available to start work?

23 THE WITNESS: Yes, sir. But I do not know exact
24 dates. I just know approximately, you know, roughly when I
25 applied for the job and when I went through training.

1 BY MR. BLAKE: (Resuming)

2 Q You went through training the first couple of
3 weeks in January?

4 A Well, you know, that is what I thought. It has,
5 you know, been such a long, long time.

6 Q So you just do not recall very well.

7 A No, sir.

8 (Counsel for Licensee conferring.)

9 JUDGE MILHOLLIN: Mr. Blake, these applications,
10 do they indicate to which employer they were given?

11 MR BLAKE: No, sir. The witness has indicated
12 that they were to Gregg Security.

13 JUDGE MILHOLLIN: Both of them?

14 MR. BLAKE: Yes, sir.

15 JUDGE MILHOLLIN: All right.

16 THE WITNESS: On this one application that is
17 dated April 3, 1978, you might want to note, Your Honor,
18 that a friend of mine, we saw an ad in the paper and went
19 and applied for the job and were interviewed and given
20 uniforms, but I never worked employment because we returned
21 the uniforms and declined the employment. Never spent any
22 actual time on the job or training on this Licensee's
23 Application No. 75.

24 BY MR. BLAKE: (Resuming)

25 Q This was in April of '78 that you declined that

1 employment, Mr. Williams?

2 A That is correct, we did decline it.

3 Q And the reason that you did decline it?

4 A We just decided that the money they were paying at
5 the time was not worth the job.

6 Q This was in April of 1978?

7 A Yes, sir.

8 Q Your prior testimony would indicate that you were
9 on Unemployment at that point in time. Was the pay on
10 Unemployment better than the pay with Gregg Security?

11 MR. CLEWETT: Objection. Mr. Blake is badgering
12 the witness, I think. This is awfully argumentative.

13 MR. BLAKE: I will rephrase the question.

14 BY MR. BLAKE: (Resuming)

15 Q Were you on Unemployment at that point in time in
16 April of 1978?

17 A Yes, sir, I was.

18 Q And were you receiving better pay from
19 Unemployment than you would have with Gregg Security?

20 A Yes, sir, I was.

21 (Pause.)

22 Q You started work sometime, Mr. Williams, in early
23 1979, and you are not sure of the dates at this point.

24 A No, sir. I said when I -- I knew that I went
25 through my training sometime in January, and then after that

1 I was ready to go out on the job.

2 Q Sometime in early or late January, but you are not
3 sure when.

4 A Well, it could have been later January, maybe even
5 early February.

6 Q And how long were you employed at TMI?

7 A I roughly from -- I turned in my uniforms toward
8 the end of July in 1979.

9 Q And until July of 1979 you were employed at TMI.

10 A Yes, sir.

11 Q Worked every day between those periods for five
12 days a week?

13 A No, sir, but all together my last working day was
14 May 24, 1979.

15 Q And you did not work at TMI from May 24 to July
16 when you indicated that you left the employ?

17 A No, sir.

18 Q Why was that?

19 A I was temporary on suspension from the job.

20 Q Do you know the reason for that?

21 A Yes, sir. There was some legal allegations made
22 against me and that prompted my employer to temporary
23 suspend me from my job until the matter was cleared up.

24 Q So in terms of being at TMI and working --

25 A Right, it was from January to May 24, 1979.

1 Q January or early February.

2 A Yes, sir, that is correct.

3 Q To May 24.

4 A Yes, sir.

5 Q Have you ever worked at a nuclear power plant
6 prior to this?

7 A No, sir, I have not.

8 Q Are you writing a book on TMI?

9 A Yes, sir.

10 Q What is the title of that book?

11 A It is called "Three Mile Island: The Truth."

12 Q When did you start writing this book?

13 A Starting writing the book May of 1979.

14 Q Is it finished?

15 A Yes, sir.

16 Q Approximately how long is the manuscript?

17 A It is over 400 pages.

18 Q Has it been published?

19 MR. CLEWETT: Judge Milhollin, are all of these
20 questions relating to voir dire? Are we going to go through
21 Mr. Blake's entire cross-examination before he indicates
22 whether or not he is going to object to Mr. Williams'
23 statement?

24 MR. BLAKE: I have not yet begun my
25 cross-examination, as I understand it. All of this goes to

1 this witness and his background and his credentials and his
2 biases and his ability to provide probative evidence in this
3 hearing. I regard it as appropriate voir dire.

4 JUDGE MILHOLLIN: Could you -- well, you say that
5 your voir dire is directed to the object of showing what,
6 again? Could you --

7 MR. BLAKE: There will be, depending, of course,
8 on the witness's answers to questions, there will be several
9 elements in what I anticipate at this point may well be an
10 objection to this testimony. Those elements will be
11 credibility of the witness, those elements will be probative
12 value of the testimony, those elements will be his ability
13 to recall, recollect, provide useful information, those
14 elements will be bias and the purpose for which his
15 testimony is being provided today, or may be. There will be
16 a number of elements.

17 JUDGE MILHOLLIN: Do you think this is going to
18 take a lot longer?

19 MR. BLAKE: No, sir.

20 MR. GOLDBERG: Excuse me, Judge Milhollin. I have
21 a number of lines of inquiry for Mr. Williams similar to
22 those being pursued by Mr. Blake. I do not think it is
23 useful to argue as to whether it is appropriately under the
24 topic of voir dire or cross-examination with respect to the
25 credibility of the witness, but I guess, depending upon the

1 testimony that is elicited by Mr. Blake, I would like to
2 know whether I should proceed with those lines as part of
3 the voir dire or as part of the cross-examination.

4 JUDGE MILHOLLIN: Was that a question?

5 MR. GOLDBERG: Yes.

6 JUDGE MILHOLLIN: I am not sure if I understand it
7 well enough to give you an answer if any is required. You
8 are asking what?

9 MR. GOLDBERG: Whether cross-examination is going
10 to be available now, whether you prefer the credibility bias
11 questions to be separated from the substance and presented
12 to the witness during this voir dire, or whether it can be a
13 part of the cross-examination of the witness if his
14 testimony is admitted. Obviously if his testimony is not
15 admitted there would be no need for it.

16 JUDGE MILHOLLIN: Well, I have a well-founded
17 suspicion that at some point there will be a motion not to
18 accept the testimony. If I cannot decide the motion without
19 additional information, then it would be appropriate, I
20 suppose, to decide whether you could furnish some additional
21 information through cross-examination -- I am sorry, through
22 additional voir dire.

23 I would prefer simply to have these subjects,
24 credibility, bias and ability to recall, taken up in
25 cross-examination, consider them in weighing the evidence.

1 But if Mr. Blake prefers to do it this way, I cannot prevent
2 him from doing it this way.

3 MR. GOLDBERG: I had planned on doing it the way
4 you suggest, and I just wanted to make sure that if we stop
5 after Mr. Blake's voir dire and then had his motion, if the
6 Williams testimony were accepted then I would not be
7 precluded from --

8 JUDGE MILHOLLIN: No.

9 MR. GOLDBERG: Thank you.

10 MR. BLAKE: Judge Milhollin, I can explain to you
11 why I elect to do it in this manner rather than have the
12 testimony accepted and then conduct cross-examination, and
13 it is a fairly simple explanation. If the testimony is
14 accepted with the number of allegations which appear in it,
15 I then need, in order to complete the record, not only to do
16 cross-examination but I must as well consider the need to
17 put on additional rebuttal witnesses, of which in this case
18 there could be a call for a great number.

19 Rather than need to do that, my clear preference
20 would be to avoid the testimony if the determination is that
21 it is not to be probative. That is really the reason that I
22 have opted to do it by this method.

23 JUDGE MILHOLLIN: I should have asked you when you
24 began why it was that you had elected to do it this way,
25 because I will admit I was not entirely clear upon your

1 objective.

2 All right, go ahead.

3 MR. GOLDBERG: One final comment before we do
4 resume. The staff pointed out in its trial plan that we
5 reserve the right to introduce rebuttal testimony with
6 respect to the subjects of Mr. Williams' testimony, and I
7 would just alert the Special Master and the parties that,
8 depending upon your ruling on the testimony and the
9 examination, it may very well be necessary for the staff to
10 also introduce rebuttal testimony.

11 BY MR. BLAKE: (Resuming)

12 Q I think, Mr. Williams, my last question to you was
13 has this book been published?

14 A It is in the process of being published now.

15 Q It is to be published shortly?

16 A As soon as they can.

17 Q Mr. Williams, did you contact Mrs. Aamodt and
18 relate to her the substance of your pre-filed testimony in
19 this proceeding?

20 A Yes, I did.

21 Q Did you in essence offer to be a witness in this
22 proceeding?

23 A Yes, I did.

24 Q Mr. Williams, when you left TMI in May of 1979,
25 did you take some Met Ed company documents with you?

1 A Yes, sir, I did.

2 Q Would you identify the individual who gave you
3 permission to take those documents with you?

4 A There was no one to go through. I found them.

5 Q Did you contact the news media with respect to
6 your having obtained those documents?

7 A Yes, I did.

8 (Counsel handing document to witness and parties.)

9 (Witness reviewing document.)

10 BY MR. BLAKE: (Resuming)

11 Q Mr. Williams, I have provided a copy to you of a
12 document entitled "Gregg Security Services, Inc., East
13 Pittsburgh Plaza, East Pittsburgh, Pennsylvania 15112, Guard
14 Orientation Information." Do you have that document?

15 A Yes, sir.

16 Q I direct your attention to the bottom of the
17 document and your signature or the signature which appears
18 as Harry Williams, Jr. Is that your signature?

19 A Yes, it is.

20 Q Does this appear to be a document which would have
21 provided you with information about the terms of your
22 employment with Gregg Security which you signed?

23 A Yes, sir.

24 MR. BLAKE: Judge Milhollin, I would ask that this
25 document be identified as Licensee Exhibit 76.

1 (The document referred to was
2 marked Licensee Exhibit 76
3 for identification.)

4 JUDGE MILHOLLIN: So identified.

5 BY MR. BLAKE: (Resuming)

6 Q I direct your attention, Mr. Williams, to Item
7 No. 4 near the bottom of the page. I ask whether or not you
8 would understand the words "Use of client's property without
9 his express permission is prohibited" to include the removal
10 of documents from TMI during your employ at Gregg Security.

11 A Yes, sir.

12 (Counsel for Licensee conferring.)

13 (Counsel handing document to witness and parties.)

14 (Witness reviewing document.)

15 BY MR. BLAKE: (Resuming)

16 Q Mr. Williams, you have been provided a one-page
17 document which starts out with the words "Exclusive: TMI
18 Guard Talks About Cheating." Do you have that document?

19 A Yes, sir, I do have that document.

20 Q Do you recognize this -- the copy of what this
21 document may have been?

22 A Yes, sir, I do.

23 Q And what is that?

24 A It is an excerpt from one of my stories from my
25 forthcoming book.

1 Q This is an excerpt from the manuscript?

2 A Yes, sir, it is.

3 Q And from the style of print of this document, can
4 you tell what it is or where it might have appeared? Is
5 this from pages from your manuscript? I am sorry, I will
6 ask you one question at a time.

7 A Yes, sir, it is from a page, but from which page I
8 do not know.

9 Q Did this printed article appear in newsprint form?

10 A Yes, it did.

11 Q In a newspaper?

12 A Yes, sir, the Paxton Herald.

13 Q Do you know whether that date may have been
14 October 7, 1981?

15 A It is possible, if that is the date you have. I
16 do not remember it any more.

17 Q Does this appear to be a reprint of that article
18 as it appeared in the Paxton Herald?

19 A Yes, sir, it is.

20 MR. BLAKE: Judge Milhollin, I would ask that this
21 document be identified as Licensee Exhibit 77.

22 (The document referred to was
23 marked Licensee Exhibit 77
24 for identification.)

25 JUDGE MILHOLLIN: So identified.

1 BY MR. BLAKE: (Resuming)

2 Q Mr. Williams, how did the Paxton Herald get the
3 information for this story?

4 A I gave the information to them to use.

5 Q And you have indicated it is an excerpt from your
6 manuscript?

7 A Yes, it is.

8 Q Accurate?

9 A Most of it is accurate, yes.

10 Q Identify for me, please, which parts are not.

11 (Witness reviewing document.)

12 A The one part there that says I only missed five
13 questions, which gave me a 90.

14 Q I am sorry, I do not know exactly --

15 A It is in the second paragraph, about the third
16 large paragraph just a small ways down. It says I only
17 missed five questions, which gave me a 90. And it turned
18 out, seeing my exams, I missed six questions, so I got an 88.

19 Q Otherwise this document appears to be an accurate
20 reprint of a portion of your manuscript?

21 A Yes, sir, it is.

22 Q Approximately where in the manuscript is this
23 portion located? Early? Middle?

24 A It is towards the end, toward one of the few
25 ending chapters, maybe around Chapter 11, 12, approximately.

1 Q Are there any other portions of this manuscript
2 which discuss this particular incident?

3 A No, sir. There's no other cheating incidents
4 covered other than just this one.

5 Q And I take it you consider this description in
6 here of the RWP class you attended to be accurate and
7 truthful.

8 A Yes, sir.

9 Q When did you write the portion of your manuscript
10 concerning the RWP cheating incident which was published in
11 the Paxton Herald and shown here in this reprint?

12 A It was quite some time later. I finished the
13 manuscript in July, being one of the few chapters that was
14 written sometime in 1980, possibly around the spring of --
15 correction. It was July of 1981 that I finished the
16 manuscript, so it was approximately sometime in the spring
17 of 1981 that I completed this chapter.

18 Q Mr. Williams, is your manager a writer for the
19 Paxton Herald?

20 A He does write articles for the Paxton Herald, yes.

21 JUDGE MILHOLLIN: Your manager, you said?

22 THE WITNESS: Yes, my manager. He writes
23 articles, but whether or not he is employed, I do not know.
24 He says he is not, so, you know, I just have to take his
25 work for it. He assists with the owner of the paper and he

1 writes articles from time to time, goes out on investigative
2 reports, things like that.

3 BY MR. BLAKE: (Resuming)

4 Q Have you submitted other articles to the Paxton
5 Herald for publication?

6 A Yes, I did.

7 Q And were they published?

8 A Yes, they were.

9 (Counsel for Licensee conferring.)

10 Q I take it that the exam incident -- I think you
11 referred to it as the cheating incident -- described in the
12 October 7 Paxton Herald article is the same incident that
13 you described in your testimony.

14 A Yes, it is.

15 Q At the time this event occurred, did you report to
16 the RWP instructor or Met Ed management the cheating that
17 you described?

18 A No, I did not.

19 Q Did you report this cheating to anyone?

20 A No, I did not report it to anyone, but two of the
21 guys that cheated, they talked about it with me.

22 (Counsel handing documents to witness and parties.)

23 (Witness reviewing documents.)

24 Q Mr. Williams, you have been provided two
25 documents. One of them is two pages in length -- I am sorry,

1 one of them is three pages in length, and in the upper
2 right-hand corner appear the words "Harry Williams tells it
3 all. At TMI, lack of training covered up by cheating." It
4 appears to be an excerpt from a newspaper.

5 Do you recognize these three pages.

6 A Yes, sir, I do.

7 Q And do they appear to be copies of newsprint?

8 A Yes, sir.

9 Q Do you know where they might have been copied from?

10 A Well, they were copied from my manuscript and they
11 were published by the Paxton Herald also.

12 Q Do you know whether or not this might have
13 appeared on October 14, 1981?

14 A Yes, sir.

15 MR. BLAKE: Judge Milhollin, I would ask that this
16 document upon which the words "Harry Williams tells it all"
17 appear be identified as Licensee Exhibit 78.

18 (The document referred to was
19 marked Licensee Exhibit 78
20 for identification.)

21 JUDGE MILHOLLIN: So identified.

22 BY MR. BLAKE: (Resuming)

23 Q Mr. Williams, the second document you have been
24 provided has in large print at the top of it, on the first
25 of four pages, the words, "The Truth About TMI. World

1 Doesn't Have Whole Truth." Do you see that document?

2 A Yes, I do.

3 Q Do you recognize what this four-page document
4 might be?

5 A Yes, sir.

6 Q Does it appear to be an excerpt or a reprint of an
7 excerpt from a newspaper article?

8 A Yes, sir, it is. It is another excerpt from
9 another chapter of my book, and this was also published by
10 the Paxton Herald Newspaper.

11 MR. BLAKE: I ask this document be identified as
12 Licensee Exhibit 79.

13 (The document referred to was
14 marked as Licensee Exhibit 79
15 for identification.)

16 BY MR. BLAKE: (Resuming)

17 Q On your proposed testimony, Mr. Williams, at the
18 middle of page 3 if you could turn to that, please, in the
19 second paragraph on that page.

20 A Yes, sir?

21 Q The second paragraph on that page, the third
22 sentence, reads: "There were some other people on the other
23 side of the fence," et cetera.

24 A Yes, sir.

25 Q That statement does not appear in your manuscript

1 of this cheating incident, does it, as it was reprinted in
2 the Paxton Herald?

3 A No, sir.

4 Q Is that because you recalled it between the spring
5 of '81 and your preparation for this testimony?

6 A Yes, sir, that is correct.

7 Q Did you recall it prior to the time your
8 manuscript appeared in print in October of 1981, or was it
9 between -- excuse me. You may answer that.

10 A No, sir, because coming down the homestretch of
11 finishing the manuscript, I was rushed by the Paxton Herald
12 to get it done for publication, so hurriedly get it done,
13 you know, some things were inadvertently overlooked, and as
14 we were going through the manuscript to edit it and typeset
15 it for publication, I was told to try to remember anything
16 else that I might have left out, you know, in a hurry trying
17 to get it finished; and so I have.

18 Q So you recalled this part of what occurred in
19 April of 1979 somewhere between the first or second week in
20 October, when the manuscript appeared in the newspaper, and
21 November 1 or 2nd when this testimony was filed.

22 A Yes, sir.

23 Q The next sentence in the same paragraph, is the
24 same thing true about that sentence, that is, the sentence:
25 "I watched the foreman hand out the crib sheets"? Did you

1 recall that again during this same couple of week period?

2 A Yes, sir.

3 Q I take it from your testimony, this testimony as
4 proposed on page 3, that there was one foreman standing by
5 the fence.

6 A Yes, sir, there was.

7 Q And it is further your testimony that some 50
8 people who cheated on this exam handed their answer sheet
9 back to this one foreman.

10 A Yes, sir. As an approximation it was.

11 JUDGE MILHOLLIN: What foreman are we talking
12 about?

13 THE WITNESS: The foreman he is referring to that
14 I watched the foreman hand out the crib sheets to this
15 group, then I left. That is what he was referring to.

16 JUDGE MILHOLLIN: A uniformed foreman? Did this
17 foreman have a uniform?

18 THE WITNESS: No, sir, he just had regular plain
19 civilian clothes on, no uniform at all.

20 JUDGE MILHOLLIN: This is a foreman employed by
21 whom?

22 THE WITNESS: Catalytic Construction.

23 JUDGE MILHOLLIN: I see.

24 BY MR. BLAKE: (Resuming)

25 Q On that same page 3 of your testimony, you say

1 that most of the people were still in the room when the
2 instructor came back.

3 A There was a small portion left over.

4 Q And you saw them give answers sheets to the
5 Catalytic foreman?

6 A Yes, I did.

7 Q How many people would that have been?

8 A Approximately about ten that were left in the room.

9 Q I may have misunderstood your answer to a prior
10 question. I thought I asked you is it your testimony that
11 some 50 people who cheated on the exam handed their answer
12 sheets back to one foreman. I thought your answer was yes.

13 A I did not understand the question. I am sorry. I
14 observed the remainder of the class that was there with me
15 hand the answers and the answer sheets back in. So it would
16 not have amounted to the 50 people, so the answer that I
17 gave you, I would have to change the answer. I did not
18 understand it.

19 Q That is why I wanted to cure it.

20 A Right. The remainder of the class.

21 Q You would have seen about ten people?

22 A Yes, the remainder of the class that was in there
23 with myself. Those are the people that I observed handed
24 the answer sheets back in to the foreman.

25 Q Mr. Williams, can you identify anyone in the world

1 who can substantiate your story with regards to the RWP
2 class that you attended on April 28, 1979 as you represented
3 in your proposed testimony?

4 A Yes, sir, I can.

5 Q Would you please provide me the names?

6 A Yes, sir. Myself, Harry Edward Williams, Jr.,
7 because I was an eyewitness to this incident that occurred.

8 JUDGE MILHOLLIN: The question was was there any
9 other person.

10 THE WITNESS: No, sir, just myself.

11 MR. BLAKE: Judge Milhollin, I object to the
12 admission into evidence of the proposed testimony of Mr.
13 Williams. I am well aware that it is within your discretion
14 to admit testimony and to give it whatever weight it
15 deserves in your view, but in this case I move or I object
16 to its admission at all. I do not think the testimony is
17 probative or will be probative.

18 THE WITNESS: Your Honor --

19 MR. BLAKE: Mr. Williams --

20 THE WITNESS: I am sorry, go ahead.

21 MR. BLAKE: Mr. Williams has demonstrated
22 considerably faulty recollection with respect to jobs which
23 he held, with respect to dates of employment, with respect
24 to education except with respect to this incident, at least
25 at this point. Even there there are differences in material

1 which appears, and by Mr. Williams' testimony was accurate
2 when it appeared in the Paxton Herald, and yet we find
3 differences in the testimony which is proposed at this point.

4 The testimony includes allegations on several
5 subject areas and would be made by an individual, if allowed
6 to be made in this proceeding, who, based on past job
7 application records, has made inconsistent statements, who
8 by his own admission took with permission documents from the
9 employ of the company, having signed in advance of employ as
10 a security guard that he understood an instruction that Mr.
11 Williams has admitted today he understands clearly to have
12 instructed him not to remove the property at TMI.

13 It would appear from past articles which have
14 appeared in news media that Mr. Williams is hardly an
15 objective witness; that in fact he is about to publish a
16 book; that he sought out a party in this proceeding and
17 asked to testify; that he has already and may well get more
18 publicity in this proceeding as a result of appearing here;
19 that his manager is with a newspaper which has printed these
20 articles and it may be further in his or his manager's
21 interest to obtain publicity from appearing or being allowed
22 to appear as a witness in this proceeding.

23 If this testimony is admitted, I will indeed do
24 cross-examination of Mr. Williams, but because of the nature
25 of the allegations and because Licensee bears the burden of

1 proof in this proceeding, and because when you get
2 allegations of this type, it requires in essence that we
3 prove a negative, I have no doubt that we will have to put
4 on additional witnesses to provide rebuttal testimony, the
5 additional research and hearing time for all of us that that
6 requires.

7 I can represent to you, Judge Milhollin, that at
8 this point in time we have contacted everyone at TMI who was
9 around at this point in time. We have interviewed
10 individuals who were in the class with Mr. Williams and the
11 foremen from Catalytic, who are currently onsite, who were
12 foremen at Catalytic at that point in time; and there is no
13 substantiation, absolutely no substantiation based on our
14 research to date.

15 I ask under these circumstances that this
16 testimony not be admitted into evidence in this proceeding.

17 MR. CLEWETT: May I have the opportunity to ask a
18 few questions of Mr. Williams?

19 DIRECT EXAMINATION - Resumed

20 BY MR. CLEWETT:

21 Q Mr. Blake has referred to documents which you
22 found at Three Mile Island. Where do you find those
23 documents?

24 A I found them in John Herbein's office, the vice
25 president at that time for Metropolitan Edison Company.

1 Q Where within that office did you find them?

2 A Lying on the floor right next to his desk.

3 Q Did they look as though they had been thrown out
4 or did they look as though they had been placed on the floor
5 or --

6 A Evidently they were more or less dropped on the
7 floor somehow. They were scattered all over the floor.

8 Q Did you have any reason to believe that
9 Metropolitan Edison had relinquished control over these
10 papers?

11 A I do not quite understand the question.

12 Q Did it appear to you as though they had been
13 essentially thrown out as though they were no longer
14 Metropolitan Edison property?

15 A I do not know. They were just scattered on the
16 floor.

17 Q At the time when you took the radiation work
18 permit test, were there any other employees of Gregg
19 Security Service at that test?

20 A No, I was the only Gregg Security guard at the
21 time I took the exam.

22 Q Had you seen any of the other people in that test
23 before you went to take the test?

24 A None that I can recall because of the many
25 thousands of people who were working on the Island.

1 Q What are your feelings -- do you have any
2 particular opinion about the question of the importance or
3 viability of nuclear power as an energy source?

4 A I think nuclear energy is important to this
5 country, but I do feel it has some drawbacks. We need
6 nuclear power but nuclear power has to be explored more
7 because of the problems that have arisen in the present and
8 the past, and I do think that nuclear energy will be a good
9 source of power in the future. But there has to be some
10 significant amount of safety changes made in order to
11 continue to make it safe.

12 Q Why did you decide to write a book about Three
13 Mile Island?

14 A Because I observed things that occurred that were
15 later on denied, and I tried to do my job to the best of my
16 ability and it conflicted. I would do my job by the book.
17 In some instances they were not being carried out according
18 to NRC rules, and when I tried to do my job and correct the
19 situation, I was told on many different occasions by Met Ed
20 employees to keep my fat nose in security.

21 And since after a while I was getting frustrated
22 from my job and since I could not get through to the people
23 who had hired me of what was going on, which I reported all
24 incidents as accordance with what I was supposed to do, I
25 decided to leave the job and put it on paper to help bring

1 about change in the near future.

2 Q Is that the reason why you are appearing here
3 today?

4 A That is right. I am under oath. I am telling you
5 under oath everything that has been brought out. I believe
6 it's the truth. I wrote it and I stand by it 100 percent.

7 Q At the time you discovered these documents in Mr.
8 Herbein's office, did you read them before you --

9 JUDGE MILHOLLIN: Did you what?

10 BY MR. CLEWETT: (Resuming)

11 Q Did you read them before you took them with you?

12 A Not at the time. I went to another post, and I
13 only had -- well, I did not have a chance to observe them. I
14 gathered them up because I was on my way back to the
15 Processing Center, and I approached Sergeant Ron Stinchkum
16 and I was going to tell him what I found and pull them out
17 of my coat pocket and surrender them to him, but something
18 came up that they were going to close the door in Unit 1
19 turbine building, they were going to close door number 5,
20 which leads to the hallway of the auxiliary building. They
21 were going to in turn open up door number 7, and he was
22 busy, and he told me that he did not have time to talk to
23 me, to say whatever I had to say to him later on.

24 He then transferred me, told me to go to another
25 post. He walked away from me then because he did not have

1 any more time to speak to me. He told me to go to door
2 number 5 because they were bringing in equipment to start
3 the decontamination there, so I still had the documents
4 intact in my coat pocket and I did -- I had to work
5 overtime.

6 By the time I got out of there after midnight, he
7 was gone, and I can honestly say, and I am under oath, I
8 completely forgot that I had them. I took them home and did
9 not discover that I had them again until I had already
10 gotten in my car and left the Island.

11 THE WITNESS: I read them -- I went home and
12 tucked them away because I liked my job, I valued my job
13 highly. I had a wife and two children, and I knew that if I
14 would go back the next day and turn the documents in, they
15 would falsely accuse me and try to accuse me of stealing
16 them. They would never accept my word, no matter what. So
17 I tucked them in a drawer and they stayed there for around
18 several weeks, and then I decided to pull them out and start
19 reading them and see what the contents were.

20 JUDGE MILHOLLIN: Why did you take them, because
21 you wanted to read them eventually?

22 THE WITNESS: No, sir. I completely -- I told
23 you. I had them. I was going to turn them back to the
24 Sergeant.

25 JUDGE MILHOLLIN: Why did you pick them up when

1 you found them in Mr. Herbein's office?

2 THE WITNESS: Because we were always told that if
3 we found anything suspicious, it was part of my job as a
4 security guard, if it looked like -- you know, they looked
5 at the time, I browsed at them as I picked them up, they
6 looked important. I thought that it was my job to pick them
7 up. There was nobody around so I thought it was my sole
8 duty to turn them in to the Sergeant, report the incident.

9 JUDGE MILHOLLIN: They looked suspicious to you?

10 THE WITNESS: Yes, sir.

11 JUDGE MILHOLLIN: Why did they look suspicious?

12 THE WITNESS: Somebody might have been in there in
13 that man's office, because the door was open, somebody might
14 have walked into his office and might have tampered with the
15 information, you know, tampered with things in his office.

16 JUDGE MILHOLLIN: And you thought the documents
17 were suspicious because you thought someone had tampered with
18 his office?

19 THE WITNESS: Possibly. They were scattered all
20 over the floor as if, you know, as if somebody might have
21 dropped them or thrown them on there or something. They
22 were -- you know, where his desk was, it would be very hard
23 -- I cannot say, but I think it would be very hard for them
24 to blow off of his desk.

25 JUDGE MILHOLLIN: You thought it was necessary for

1 you to pick them up and take them somewhere in order to call
2 attention to the fact that they were on the floor.

3 THE WITNESS: Yes, sir, and that somebody might
4 have been in his office, because that particular part of the
5 plant used to have a regular guard there, but when they --
6 during the accident, there was never a guard there for quite
7 a long time, and eventually they moved the regular
8 Communications Command Post from right inside the main door
9 of the plant out into the Processing Center, left nobody to
10 guard that immediate area where the documents were found.

11 JUDGE MILHOLLIN: What did you intend to do with
12 the documents after you picked them up? You say you picked
13 them up because they were on the floor?

14 THE WITNESS: Yes, sir. I thought that they were
15 scattered on the floor in a suspicious manner. I picked them
16 up to turn them in to the Sergeant and report the incident,
17 what I found. See, down that hallway there is a bathroom,
18 turn to the left, there is a bathroom. It is like a shower,
19 locker room, half, and the other half is a bathroom. I was
20 on my way there to go to the bathroom, and I noticed on the
21 way in that they were on the floor, and then I did something
22 about it on my way out. They were still scattered on the
23 floor with nobody around.

24 JUDGE MILHOLLIN: Do you have any more questions,
25 Mr. Clewett?

1 MR. CLEWETT: Just a few very.

2 BY MR. CLEWETT: (Resuming)

3 Q Am I correct in believing that you did not read
4 the documents at all in any fashion before you picked them
5 up?

6 A Just a quick glance. I never really read the
7 entire contents of any of them.

8 Q Did you notice anything suspicious in the quick
9 glance that you gave these?

10 A Well, the contents of some of them, I browsed a
11 each one. They looked like they were very important
12 documents to me, so I thought immediate attention to the
13 Sergeant was appropriate.

14 JUDGE MILHOLLIN: Did you regularly patrol offices
15 in your job?

16 THE WITNESS: No, sir. I have walked past those
17 offices several times, and since security was my job and
18 that office was part of my job, if I observed something
19 suspicious, so I took action, took initiative action on my
20 own.

21 JUDGE MILHOLLIN: If you had seen papers on
22 several different office floors, would you pick them all up?

23 THE WITNESS: If I was close by, yes, sir, I would.

24 JUDGE MILHOLLIN: Mr. Clewett, do you have
25 anything else?

1 MR. CLEWETT: I have no further questions.

2 I would oppose the objection of Mr. Blake. He has
3 pointed to a number of alleged problems with the probative
4 value of the statement of Mr. Williams, such as faulty
5 recollection regarding jobs and dates of employment. I do
6 not believe that the examples that he has offered rise very
7 high in that regard. I would venture to guess that if
8 someone were to obtain all of the past applications for
9 employment of Mr. Blake or anyone else in the room, there
10 might well be omissions from them.

11 As to the differences in the material which Mr.
12 Blake has pointed out, comparing the Paxton Herald and the
13 prepared testimony, I believe the only difference he has
14 pointed out is an addition that appears in the prepared
15 testimony, which would not affect the accuracy of the
16 material as it appears in the Paxton Herald.

17 And I do not believe that Mr. Williams has a bias
18 against nuclear power. I think it is fairly clear that his
19 interest in appearing is that of an individual who wants to
20 come forth to remedy problems as he sees them.

21 So it seems to me that the more reasonable course
22 rather than striking this testimony is to judge its weight
23 through the process of cross-examination, and for it to be
24 given such weight as it deserves in this proceeding.

25 JUDGE MILHOLLIN: Any other comments by the

1 parties?

2 MR. ADLER: I would like to ask whether Mr.
3 Clewett intends to present any other evidence that would
4 corroborate Mr. Williams' testimony, either physical or
5 testimonial.

6 MR. CLEWETT: There is the possibility of some
7 further evidence in corroboration of Mr. Williams' story.
8 Until the beginning of the hearings, we did not know the
9 names of any of the other individuals who had taken the
10 radiation work permit test, and since the hearings have
11 begun there has not been time to contact these people.

12 We have made some attempts to contact Catalytic
13 Construction employees, who have represented that at the
14 time of the administration of this radiation work permit
15 test, the employees of Catalytic were worried about their
16 ability to pass it and were looking for ways to beat the
17 test.

18 Now, I do not know whether that will pan out into
19 particular evidence that would be introduced to corroborate
20 Mr. Williams' story.

21 MR. ADLER: Is there any evidence right now that
22 you have that would corroborate Mr. Williams' testimony?

23 (Counsel for the Aamodts conferring.)

24 MR. CLEWETT: Nothing that I can hand you today.
25 As I mentioned, one of the Catalytic employees, who, as I

1 understand, was a foreman at Catalytic, indicated that
2 people were looking for ways to beat the test, but that is
3 not in a form where I can present it today.

4 MR. ADLER: Judge Milhollin, the Commonwealth
5 concurs in the objection.

6 JUDGE MILHOLLIN: The objection by Mr. Blake?

7 MR. ADLER: Yes, sir.

8 MR. GOLDBERG: Judge Milhollin, the Staff believes
9 that Mr. Williams' testimony is unreliable and not probative
10 of any issue in this proceeding and supports the Licensee's
11 motion to exclude the testimony.

12 THE WITNESS: Your Honor, when everyone else gets
13 done talking, if it would please this hearing, I have a few
14 things I would like to say on my behalf if I may.

15 JUDGE MILHOLLIN: You do not have the floor at
16 this time.

17 THE WITNESS: Right. I am saying once everyone is
18 finished, if I may, if you will consider it.

19 (Pause.)

20 JUDGE MILHOLLIN: I think the value of the direct
21 testimony of this witness to the issues in this hearing is
22 very slight. The testimony relates to an event which
23 occurred in April of 1979. The direct testimony in itself
24 does not allege facts which in my opinion are of great
25 probative value.

1 I think the inconsistencies on job applications
2 are not terribly serious, and as far as his bias is
3 concerned, I think it is fair to say that in general,
4 witnesses in these proceedings have an interest in the
5 outcome, or at least it is not uncommon for a witness to
6 have an interest in the outcome.

7 But his explanation of the document incident to me
8 was totally incredible, and I think in general my
9 observation of his demeanor on the witness stand has led me
10 to believe that the slight probative value which the direct
11 testimony has has been completely undermined by what I have
12 seen so far. So I am not disposed to give his direct
13 testimony any weight whatsoever.

14 I am reluctant, however, to say that he is
15 incompetent to put it into the record, but that reluctance
16 is overcome by threats by the parties that they are going to
17 respond to it. I am disappointed that the parties think
18 that is necessary.

19 So my ruling is that on the basis of the slight
20 probative value of this direct testimony, together with the
21 fact that the credibility of this witness has been seriously
22 undermined, my ruling is that the testimony is not received
23 into evidence.

24 Mr. Williams, you are excused.

25 (The witness was excused.)

1 MR. BLAKE: I wonder if we might take a break,
2 Judge Milhollin, now.

3 JUDGE MILHOLLIN: Yes, I think this is a good time
4 for a break. We will take a break until 3 o'clock.

5 (Recess.)

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1 JUDGE MILHOLLIN: The hearing will come to order.
2 Mr. Clewett, it will be necessary for you to introduce as an
3 exhibit Mr. Williams' testimony so it can be part of the
4 record for appeal.

5 MR. CLEWETT: Very well, I would ask that the
6 testimony of Mr. Williams be identified as Aamodt Exhibit
7 No. 10.

8 MS. SWARTZ: You have a ten.

9 MR. CLEWETT: I am sorry, thank you, Ms. Swartz, I
10 would ask that it be marked as Aamodt Exhibit 11.

11 (The document referred to was
12 marked Aamodt Exhibit No. 11
13 for identification.)

14 And ask that it be received in evidence.

15 JUDGE MILHOLLIN: It will not be received in
16 evidence, but it will be marked as an exhibit and accompany
17 the record.

18 (The document previously
19 marked Aamodt Exhibit No. 11
20 for identification was
21 rejected.)

22 MR. CLEWETT: Pardon my mis-statement.

23 MR. GOLDBERG: Staff's first witness is Mark E.
24 Resner. Mr. Resner has not been sworn.
25 Whereupon,

1 MARK E. RESNER
2 was called as a witness by counsel for NRC Regulatory Staff
3 and, after being first duly sworn, was examined and
4 testified as follows:

5 DIRECT EXAMINATION

6 BY MR. GOLDBERG:

7 Q Mr. Resner, I have given you a document dated
8 11/3/81 entitled "Testimony of Mark E. Resner Relative to
9 the OIA Investigation, Issue Two." Was that document
10 prepared by you or under your direction?

11 A Yes, it was.

12 Q Do you adopt that document as your testimony in
13 this proceeding?

14 A I do.

15 Q Do you have any changes to make to that document?

16 A No.

17 MR. GOLDBERG: At this time, I would ask that the
18 document, "Testimony of Mark E Resner Relative to the OIA
19 Investigation Issue Two" consisting of four pages attached
20 to which is Mr. Resner's qualifications statement, be
21 accepted and physically bound into the record as if read.

22 JUDGE MILHOLLIN: It is accepted in evidence and
23 so bound into the record.

24 (The document entitled, "Testimony of Mark E.
25 Resner Relative to the OIA Investigation Issue Two" follows:)

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
METROPOLITAN EDISON COMPANY, ET AL.)
(Three Mile Island Nuclear Station,)
Unit 1))

Docket No. 50-289
(Restart)

TESTIMONY OF MARK E. RESNER
RELATIVE TO THE OIA INVESTIGATION (ISSUE 2)

Q. Mr. Resner, state your full name and describe your duty assignment.

A. Mark E. Resner. My duties, in general, are to conduct investigations to insure the integrity of the NRC and its employees and to investigate matters concerning the NRC which deal with violations of the Atomic Energy Act, as amended, having criminal sanctions.

Q. Mr. Resner, how long have you been employed in this capacity?

A. I have been employed in this capacity since July 1978.

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11/20

Q. When and with what guidance, if any, were you assigned to investigate the allegations of cheating at TMI?

A. On July 22, 1981, Ronald Smith and I were advised by Art Schnebelen, Acting Assistant Director for Investigations, Office of Inspector and Auditor (OIA), of the allegations of cheating which had been passed telephonically to James J. Cummings, Director, OIA, by Jim Lieberman, OELD.

Subsequent to an interview with Mr. Lieberman by us and Mr. Schnebelen, Messrs. Cummings, Schnebelen, Smith, and Resner discussed the facts as we knew them and we were told by Mr. Cummings to interview Mr. Collins, NRR, Mr. Wilson and Mr. Maines, NRR.

Q. Whom did you first contact?

A. As indicated above, Mr. Smith and I, with Mr. Schnebelen, first contacted Mr. Lieberman and Mr. Mount, Attorneys with OELD, on July 22, 1981.

They briefly recounted how they became aware of the matter and their subsequent actions. We also arranged to be provided with the exams in question while taking along a copy of one of the exams at that time.

Q. When did you interview Mr. Collins, Mr. Wilson, and Mr. Maines?

A. On July 22, 1981, we interviewed Mr. Collins, NRR, concerning his knowledge of the matter. We also requested and obtained all April 1981 Senior Reactor Operator and Reactor Operator Exams administered for the TMI #1 restart. On July 23, 1981, we interviewed Messrs. Wilson and Maines. On July 24, 1981, Mr. Smith and I were advised orally that the Chairman of the Commission had determined that IE should conduct the remainder of the investigation.

Q. What did you do after you were told that IE would continue the investigation?

A. During the week of July 27, 1981, we put the results of our interview efforts into final form and reviewed the exams. We then prepared the Report of Investigation, dated July 31, 1981. Copies of our interviews and finally the Report of Investigation were provided to the IE investigators as they were finished. All available information we had obtained was provided to the IE investigators. Mr. Smith and I also forwarded a copy of the OIA report along with a cover memo containing recommended action to the Commission.

Q. Was the methodology of the investigation you performed consistent with methodology of other like investigations you have conducted previously?

A. Yes. The method we use in most investigations that OIA conducts is first to determine what potential violations appear to be present. We then outline in an informal manner an investigative plan, i.e. who we will contact and in what order, what information we expect or hope to obtain from them. We also determine what documentation we believe to be relevant and plan for obtaining it. Finally, after gaining all relevant information necessary from individuals and any documentation, we interview the subject or subjects of the investigative effort. This is the methodology we followed in the investigation of the cheating incident at TMI-1. In other investigations, however, we have been able to collect sufficient amounts of information to complete the investigation and

close the case. In this instance, after the interviews with Mr. Lieberman, Mr. Mount, Mr. Collins, Mr. Wilson and Mr. Maines, Mr. Smith and I turned this information over to the Office of Inspection and Enforcement. We wrote the OIA report based on the preliminary information we collected from the staff members interviewed and our review of the RO and SRO examinations.

Q. Which other individuals would you have interviewed if you had been able to complete your investigation?

A. At a minimum, we would have interviewed at least some, if not all, members of the testing groups in which O and W participated in and possibly other tested individuals in the other groups and, of course, we would have interviewed O and W. These interviews would have been for the purpose of determining the extent, if any, of other cheating and for determining the quality of proctoring. Depending on the results of these efforts, we might have expanded our interviews efforts to others, such as plant or management personnel.

Q. Do you believe the OIA investigation, to the extent it was conducted, was adequate?

A. Yes. We believe the OIA investigation, to the extent it was conducted, was adequate. The NRC staff members involved in the incident were interviewed in depth and their statements were taken. Additionally, a comparative analysis was made of all the SRO and RO (TMI #1) exams administered in April 1981 for the purpose of surfacing any unusually similar answers of the examinees.

Q. If OIA had completed its investigation, would that Office have gone beyond an examination of NRC staff members involvement in or knowledge of the incident?

A. Yes as we have previously indicated.

QUALIFICATIONS STATEMENT

Mark Eric Resner

Employment History

1977-present U.S. Nuclear Regulatory Commission approximately one year
in nuclear safeguards.

Approximately three years as a criminal investigator which
is my current position.

1974-1977 Montgomery County Department of Police - Montgomery County,
Maryland.

1973-1974 Metropolitan Police Department - Washington, D.C.

1967-1969 Various occupations obtaining tuition money for college -
U.S. Post Office; Retail; Electronics

1964-1967 U.S. Navy - U.S.S. William V. Pratt - Interior Communication

Education

1973 Bachelor of Science in Psychology - Frostburg State College
Frostburg, Maryland

1977 Masters Degree in Criminal Justice - George Washington University

Various specialized training courses, such as....

Criminal Investigations Training Federal Law Enforcement
Investigation of White Collar Crime Training Center

Industrial Security - Defense Industrial Security Institute

Advanced White Collar Crime - Association of Federal Investi-
gators Seminar

1 BY MR. GOLDBERG (Resuming):

2 Q Mr. Resner, I have also given you a copy of a
3 document entitled "Report of Investigation, Title: Alleged
4 Cheating on Operator Examinations for Restart of Three Mile
5 Island Unit 1" dated July 31, 1981, and I ask you whether
6 this is the report of investigation to which you referred in
7 your testimony on page 3.

8 A Yes, it is.

9 MR. GOLDBERG: I would like to have this document
10 marked as Staff Exhibit 25.

11 (The document referred to was
12 marked Staff Exhibit No. 24
13 for identification.)

14 MR. GOLDBERG: And I would move this into evidence
15 at this time.

16 JUDGE MILHOLLIN: It is so marked and receive
17 into evidence.

18 (The document previously
19 marked Staff Exhibit No. 25
20 for identification was
21 received in evidence.)

22 JUDGE MILHOLLIN: This is the Office of -- ?

23 MR. GOLDBERG: Inspector and Auditor, U.S. Nuclear
24 Regulatory Commission.

25 Before I offer Mr. Resner for cross examination, I

1 would point out that the Aamodts trial plan includes a
2 statement of their intent to inquire into the adequacy of
3 the OIA investigation. To the extent that the Aamodts have
4 questions concerning the adequacy of the OIA investigation,
5 they should be directed to Mr. Resner. This is the staff's
6 witness on the OIA investigation. It is not our intention
7 to call Mr. Cumings, the Director of the Office of Inspector
8 and Auditor, nor to call Mr. Smith whom they had identified
9 in their trial plan.

10 I now offer Mr. Resner for cross examination.

11 CROSS EXAMINATION

12 BY MS. BRADFORD:

13 Q Good afternoon, Mr. Resner.

14 A Good afternoon.

15 Q My name is Louise Bradford and I represent TMIA.
16 On page 4 of your testimony on the first complete question
17 and answer on that page you had been asked which other
18 individuals you would have interviewed had you been able to
19 complete your investigation. And you have indicated in your
20 answer that you would have questioned a number of
21 individuals and employees of TMI, and possibly management
22 personnel. Is that correct?

23 A That is correct.

24 Q Mr. Resner, are you familiar with the August 11 IE
25 investigation?

1 A I am not familiar with the specific investigation
2 on August 11. I know there were some IE investigations.

3 Q You are not familiar with the document? Is that
4 what you are saying?

5 A No, ma'am.

6 (Pause.)

7 Q Mr. Resner, since you are not familiar with the
8 I&E investigation, I am not able to ask you the questions.
9 Thank you.

10 A You are welcome.

11 (Laughter.)

12 BY MR. CLEWETT:

13 Q Good afternoon, Mr Resner, my name is John
14 Clewett. Do you know Mr. John Collins of the NRC?

15 JUDGE MILHOLLIN: Mr. Clewett, excuse me, have you
16 given me a cross examination plan?

17 MR. CLEWETT: I am afraid I have not. I have only
18 a very few questions. It slipped my mind in the aftermath
19 of the most recent events in the room here. I have not
20 prepared one.

21 JUDGE MILHOLLIN: There is a requirement for a
22 cross examination plan.

23 MR. CLEWETT: Then in that event, I guess I do not
24 have any questions of this witness.

25 JUDGE MILHOLLIN: How many questions do you have?

1 Would the Commonwealth like to ask its questions first
2 perhaps?

3 MR. ADLER: I do not have a plan, either. We just
4 learned just before lunch that there was a possibility we
5 would get to Mr. Resne: this afternoon. I have a few
6 questions. I do not really think we should require it.

7 JUDGE MILHOLLIN: All right.

8 MR. GOLDBERG: I do not have any objection.

9 JUDGE MILHOLLIN: All right, go ahead.

10 BY MR. CLEWETT (Resuming):

11 Q Do you know Mr. John Collins of the NRC?

12 A Yes, I do.

13 Q Do you know Mr. Gary Sandborn?

14 A What was the last name, please?

15 Q Sandborn.

16 A No, I do not.

17 Q Did Mr. Collins ever mention to you any contact
18 that he may have had with Mr. Harry Williams?

19 A No, he did not.

20 Q Has any information ever come to your attention
21 regarding any telegram from the Babcock & Wilcox Company
22 sent to Metropolitan Edison in March of 1979?

23 A No, sir.

24 MR. GOLDBERG: Excuse me, telegram regarding what?

25 MR. CLEWETT: Regarding unsafe conditions at

1 Metropolitan Edison which could lead to a meltdown.

2 MR. GOLDBERG: Objection.

3 JUDGE MILHOLLIN: The witness has said he did not
4 know of such a telegram.

5 MR. CLEWETT: I am sorry, I was --

6 JUDGE MILHOLLIN: Isn't that right?

7 THE WITNESS: Yes.

8 JUDGE MILHOLLIN: So it is irrelevant what the
9 telegram he does not know about might have said.

10 MR. CLEWETT: My apologies for responding to the
11 question of counsel for the NRC.

12 (Pause.)

13 BY MR. CLEWETT (Resuming):

14 Q I would like to show you a document which
15 unfortunately I have only one copy of, which is a letter to
16 the Honorable Nunzio Palladino, the Chairman of the NRC,
17 from Morris K. Udall, the Chairman of the House Committee on
18 Interior and Insular Affairs.

19 (Counsel handing document to witness.)

20 (Witness reviewing document.)

21 JUDGE MILHOLLIN: You should ask the witness what
22 the date of the letter is.

23 BY MR. CLEWETT (Resuming):

24 Q Could you tell us, please, Mr. Resner, the date of
25 the letter?

1 A November 4, 1981.

2 Q Take a moment to look at the letter if you need
3 to. Are you familiar with this letter? Have you seen this
4 letter before?

5 A No, I have not seen this letter before.

6 Q Directing your attention to about the middle of
7 the first page of the letter, --

8 MR. GOLDBERG: Objection. The witness has never
9 seen this letter before, the letter has nothing at all to do
10 with his testimony or the issues in the proceeding. I do
11 not have a copy of the letter in front of me.

12 JUDGE MILHOLLIN: Mr. Goldberg, there is no
13 question pending. Let's wait until we have a question.

14 BY MR. CLEWETT (Resuming):

15 Q Directing your attention to the middle of the
16 first page, this letter refers to potential restrictions
17 placed on the I&E investigation of the flow of information
18 to the state officials of Pennsylvania in the wake of the
19 accident at Three Mile Island.

20 And my question is whether you have ever received
21 any information or heard anything to the effect that there
22 was such a restriction on the scope of the investigation.

23 MR. GOLDBERG: Objection.

24 MR. BLAKE: Objection.

25 MR. GOLDBERG: The witness is not familiar with

1 this letter. The letter concerns an I&E investigation.
2 This witness is not from the Office of Inspection and
3 Enforcement. The subject of the letter has nothing to do
4 with the issues in this proceeding. It is irrelevant and
5 immaterial.

6 JUDGE MILHOLLIN: The I&E investigation to which
7 you refer, Mr. Clewett, is not one of the I&E investigations
8 in this proceeding, is it?

9 MR. CLEWETT: That is correct. The point which I
10 was sneaking up on here was to ask the witness whether he
11 has heard any indication that there may have been any
12 restrictions placed upon the I&E investigation of the
13 various cheating incidents and rumors of cheating which the
14 more recent I&E reports have addressed.

15 MR. GOLDBERG: Judge Milhollin, he is free to ask
16 that question if he wants.

17 JUDGE MILHOLLIN: The objection to your question,
18 which is the objection to that question which is pending, is
19 sustained. So you may ask another question, and then we
20 will see if there are objections to that one, also.

21 BY MR. CLEWETT (Resuming):

22 Q Mr. Resner, have you ever heard any information --
23 has any information ever come to you concerning any
24 restrictions which may have been placed on the I&E
25 investigation of cheating and rumors of cheating, which the

1 -- which investigations were recently conducted by the I&E?

2 A The only restriction that I would be familiar with
3 that I have heard of with regard to the IE investigation of
4 the TMI cheating incident was a time restriction.

5 JUDGE MILHOLLIN: Was a what?

6 THE WITNESS: Was a time restriction.

7 BY MR. CLEWETT (Resuming):

8 Q What was the nature of that time restriction?

9 A To my knowledge, the IE investigators -- and this
10 is strictly hearsay -- were under a deadline or urgency to
11 get the report done.

12 Q From what source did you hear this?

13 A I heard this through another investigator in our
14 office.

15 Q Who would that person be?

16 A Ron Smith.

17 Q Did he indicate anything about the source of this
18 time pressure?

19 A Not to me he did not, no.

20 Q Do you have any other indication of what the
21 source may have been?

22 A No, I do not.

23 (Counsel for the Aamodts conferring.)

24 Q To your knowledge, has the NRC staff reviewed any
25 exams given at Three Mile Island Unit 1 other than the April

1 1981 licensing examinations, on which there was cheating?

2 A I believe Paul Collins' group did review some of
3 the prior exams at TMI.

4 Q Do you know which exams they would have been?

5 A No, I do not.

6 MR. CLEWETT: Thank you very much. We have no
7 further questions.

8 BY MR. ADLER:

9 Q Good afternoon, my name is Robert Adler, I
10 represent the Commonwealth of Pennsylvania. Do you know why
11 the OIA investigation was terminated in favor of the I&E
12 investigation?

13 A No, I am not privilege to that information.

14 Q On page four of your testimony in response to the
15 first complete question you indicate that you would have
16 interviewed some, if not all, members of the testing groups
17 in which O and W participated, and possibly have tested
18 other individuals in the other groups.

19 In the first of those two sets, the testing groups
20 in which O and W participated, which individuals would you
21 have interviewed?

22 A Depending on the answers that we got and the
23 responses we got from the people we interviewed, that would
24 determine the extent to our interviews, or extending our
25 interviews. But -- so --

1 Q How would you make your initial selection of
2 interviewees?

3 A There again, based on our interview of O and W.

4 MR. BLAKE: Can we take a break for a moment?

5 JUDGE MILHOLLIN: We can take a break for a moment.

6 (Discussion off the record.)

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1 BY MR. ADLER (Resuming):

2 Q So your testimony, Mr. Resner, is that you would
3 start with the two involved, individuals O and W, and
4 determine who else to interview.

5 A That is correct.

6 Q And then you say possibly other tested individuals
7 in other groups. Would that again depend on the testimony
8 of O and W?

9 A Yes, and the testimony of others as we proceeded
10 along, whether or not we extend that to other groups.

11 Q Can you give us some indication of what factors
12 you would consider in determining how wide the investigation
13 should be?

14 (Pause.)

15 A Well, for instance, I can give you an example. If
16 someone suggested during an interview that there was other
17 cheating, that would be a factor, of course, obviously.

18 Q Well, you start with O and W. Let's assume that
19 they tell you that they did not cheat in your first
20 interview, and they know of no one else cheating. Where
21 would you go from there? Who else would you interview?

22 A Well certainly, the members in their test group,
23 as I stated previously.

24 Q All of the members in their test group?

25 A There again, depending on what they had to offer.

1 Q What who had to offer?

2 A What the other members of the test group had to
3 offer during the interview.

4 Q Well, how many would you start with, and how would
5 you select them? You have to start somewhere.

6 A I do not know that we would -- we would get a list
7 of whoever was in that test group. I do not know that we
8 would take a person at random, interview them, do the entire
9 group if necessary. It is something that once you get into,
10 you get a feel for. It is just something you cannot make --

11 Q Your first step after O and W would be to take the
12 group at random. Is that your testimony?

13 A It would -- it depends what information we got
14 from the two individuals, what other evidence there was
15 besides their -- what they offered. I cannot say that
16 anything concrete --

17 Q Aren't you familiar with the initial testimony of
18 O and W and the initial circumstances of the investigation
19 and all of the information that you had available to you at
20 the beginning of your investigation? Aren't you familiar
21 with that information?

22 A I am sorry, would you repeat the question?

23 Q Aren't you familiar with the initial testimony of
24 O and W and all the initial circumstances surrounding the
25 incident that you had available to you?

1 MR. GOLDBERG: Excuse me. I do not understand the
2 reference to O and W testimony.

3 JUDGE MILHOLLIN: Their statements.

4 MR. GOLDBERG: Is that what you mean?

5 MR. ADLER: Yes, sir.

6 THE WITNESS: I did not have available O and W's
7 statement. I did not interview them, our office did not
8 interview them.

9 BY MR. ADLER (Resuming):

10 Q You have never read O and W's statements?

11 A No, I have not.

12 MR. ADLER: I have no more questions.

13 JUDGE MILHOLLIN: No questions from the licensee?

14 MR. BLAKE: No, sir.

15 MR. GOLDBERG: Just a couple on redirect.

16 REDIRECT EXAMINATION

17 BY MR. GOLDBERG:

18 Q Mr. Resner, with respect to the time urgency of
19 the I&E reports to which you testified earlier, do you have
20 any knowledge as to whether your testimony was with respect
21 to a particular one of the I&E reports on cheating?

22 A No, I do not.

23 As I understand it, this information would have
24 been at the initial I&E investigation. I do not know which
25 investigation it was. It was the first time I&E went out

1 into the field, whichever investigation that was.

2 MR. GOLDBERG: Okay, thank you, I have nothing
3 further.

4 MR. CLEWETT: Judge Milhollin, in view of the fact
5 that we did not know until noontime that there was a
6 possibility of this witness coming up, I wonder if I might
7 ask one more question of this witness.

8 JUDGE MILHOLLIN: All right.

9 RECROSS EXAMINATION

10 BY MR. CLEWETT:

11 Q On page 2 of the cover letter by William J.
12 Dircks, the Executive Director for Operations --

13 JUDGE MILHOLLIN: The cover letter of what?

14 MR. CLEWETT: The OIA report.

15 BY MR. CLEWETT (Resuming):

16 Q Do you have a copy of that letter there?

17 A No, I do not.

18 Q Allow me to provide you with one.

19 It may be easier if I ask you the sections of my
20 question without necessarily referring to this particular
21 letter. In reviewing the results of examinations, I believe
22 you indicated that there was a review of several
23 examinations other than the April NRC examination.

24 Do you know how those were done, how those
25 investigations were done, how the examinations were compared?

1 A Could I see what you are referring to, please?

2 Q Yes.

3 (Counsel handing document to witness.)

4 I perhaps should ask you a different question than
5 I did.

6 JUDGE MILHOLLIN: You only have one, Mr. Clewett.

7 MR. CLEWETT: Let me see if I can get it right.

8 BY MR. CLEWETT (Resuming):

9 Q I believe that one of the recommendations made in
10 the wake of the discovery of cheating by O and W was that
11 recent examinations be evaluated -- recent examinations from
12 other reactor sites be evaluated to determine whether there
13 could have been cheating on those. And I believe that
14 letter which I have shown you indicates that this was done
15 by selecting one particular answer for the exams and
16 comparing that one.

17 And my question is whether you know how such a
18 selection would be made. How, if the choice was made of
19 what questions to compare.

20 A No, I do not have that knowledge. That is Mr.
21 Collins group.

22 MR. CLEWETT: Well, I guess I have used up my one
23 question, Judge Milhollin. Thank you for your indulgence.

24 JUDGE MILHOLLIN: Are there any other questions
25 for this witness?

1 (No response.)

2 I think the record should be supplemented to some
3 extent by a statement from you which would briefly indicate
4 the difference in function between your office and the
5 Office of Inspection and Enforcement. I do not think that
6 is on the record anywhere, and it seems to me that the
7 record would be enhanced by a statement of that kind.

8 THE WITNESS: Okay. Our office, the Office of
9 Inspector and Auditor, is responsible for the integrity of
10 the employees and the other Commission -- we review
11 investigations that are referred to our office by the Office
12 of Inspection and Enforcement. We review those
13 investigations for any potential criminality that may be
14 there.

15 We are more of an internal investigative group,
16 for the large part, as opposed to I&E, Inspection and
17 Enforcement Office, which deals primarily with the licensees.

18 JUDGE MILHOLLIN: So the subject matter of your
19 work is the Commission itself and its employees?

20 THE WITNESS: Yes, primarily. Yes, that is the
21 thrust of it.

22 JUDGE MILHOLLIN: Thank you, Mr. Resner. You are
23 excused.

24 (Witness Resner was excused.)

25 MR. BLAKE: Judge Milhollin, I believe since that

1 is the only witness who is available this afternoon, that
2 the remainder of what otherwise might be hearing time today
3 could be fruitful spent among the parties, as I suggested
4 earlier, discussing subsequent witnesses, the need for them
5 in view of the evidence which has developed and even if we
6 are able to agree on a list what the schedule is that they
7 might appear in, and be as fruitful as we can this afternoon
8 in what at least will be our first certain discussions on
9 this subject.

10 JUDGE MILHOLLIN: That appears to me to be an
11 excellent suggestion. We are scheduled tomorrow for the NRC
12 staff witnesses to begin the day, according to my
13 understanding, with Mr. Crocker and Mr. Collins. And then
14 in the afternoon we shall reach the Aamodts' testimony.

15 I think it would be a good thing for me to say --
16 make a couple of general remarks about the balance of the
17 staff case, which would then follow on beginning December
18 1. I really only have one remark to make, and that is the
19 adequacy of the staff's investigation is an issue in the
20 case.

21 Now, it occurs to me -- and again I have not --
22 well, it occurs to me, although I have not given this a
23 great deal of study, it occurs to me that the significance
24 of the adequacy of the investigation is important for the
25 issue of how much cheating there may have been, or how much

1 management involvement there may have been. Or perhaps for
2 some other issue.

3 But I question whether it is fruitful to simply
4 establish inadequacies for the sake of establishing
5 inadequacies. That is, whether the Office of Inspection and
6 Enforcement is as efficient as it should be is important,
7 but I do not think it is of primary importance in this
8 proceeding. At least, that is a preliminary impression I
9 have.

10 I bring that up simply in order to give you the
11 benefit of my views as you are preparing for staff witnesses.

12 With respect to the part of the staff which is
13 supervised by Mr. Collins, I am not sure that that same view
14 would be appropriate. That is, we are going to have to
15 continue to rely on the section of the staff supervised by
16 Mr. Collins in the future to proctor and grade and
17 administer examinations.

18 I would think that that material would be more
19 closely connected with this proceeding than the material
20 directed to the adequacy of the I&E investigation.

21 Are there any other matters which any party would
22 like to advance before we adjourn today?

23 (No response.)

24 Very well, we stand adjourned until 9:00 o'clock
25 tomorrow morning.

1 (Whereupon, at 3:57 p.m. the hearing in the
2 above-entitled matter recessed, to reconvene at 9:00 a.m.
3 the following day, Saturday, November 21, 1981.)

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NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the

ATOMIC SAFETY AND LICENSING BOARD

in the matter of: METROPOLITAN EDISON COMPANY (THREE MILE ISLAND UNIT 1)

Date of Proceeding: November 20, 1981

Docket Number: 50-289 (Restart)

Place of Proceeding: Harrisburg, Pennsylvania

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

David S. Parker

Official Reporter (Typed)



(SIGNATURE OF REPORTER)

1 yesterday, and it would appear to us that he has waived his
2 objections.

3 JUDGE MILHOLLIN: That is true. There was no
4 objection at the time these documents were offered. So your
5 objection is simply too late.

6 MR. CLEWETT: Very well.

7 Mrs. Aamodt has a few brief questions she would
8 like to address.

9 JUDGE MILHOLLIN: I am withdrawing my permission
10 for multiple cross examination by one party, at least in the
11 case where the party is represented by counsel.

12 (Counsel for the Aamodts conferring.)

13 BY MR. CLEWETT: (Resuming)

14 Q There has been testimony to the effect that the
15 attendance requirements at training were very specifically
16 delineated. I am wondering whether you are aware of any
17 problem with attendance at training?

18 MR. BLAKE: I am sorry, could we have a reference
19 to that testimony?

20 MR. CLEWETT: Yes. In the testimony of Mr. Newton
21 and Mr. Brown, page 6 of the same prepared statement which
22 Dr. Long is speaking from, it refers to Attachment 3,
23 Licensee Exhibit 62, and says that training attendance
24 requirements are very specifically delineated.

25 BY MR. CLEWETT: (Resuming)

1 Q And I was wondering whether Dr. Long knew of any
2 particular problem with attendance in the training
3 sessions?

4 MR. BLAKE: Where are you reading on page 6, Mr.
5 Clewett?

6 MR. CLEWETT: The sixth line down, sixth and half
7 of the seventh.

8 MR. BLAKE: The paragraph that begins "Licensee
9 operator requalification"?

10 MR. CLEWETT: Yes, the long paragraph on that
11 page.

12 MR. BLAKE: Thank you.

13 THE WITNESS: I am not aware of any recent
14 problems with training attendance for operator training.

15 BY MR. CLEWETT: (Resuming)

16 Q When you use the word "recent," how far back would
17 that go?

18 A Over the last year.

19 Q Are you aware of attendance problems in the period
20 before that, in the year or two before that?

21 A Yes. There have been problems that I believe --
22 and I am not familiar with the details; it certainly was not
23 my responsibility at that time -- but at the time, around
24 the time of the accident, I believe there were some memos
25 and some concerns expressed orally and in writing about