

NUCLEAR REGULATORY COMMISSION

ORIGINAL

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:

METROPOLITAN EDISON COMPANY
(Three Mile Island Unit 1)

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: DOCKET NO. 50-289
: (Restart)
:

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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In the Matter of: :
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METROPOLITAN EDISON COMPANY :
Docket No. 50-289
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(Three Mile Island Unit 1) :
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Skyways Inn
Susquehanna Room
Eisenhower Boulevard
High Spire, Pennsylvania 17034

Friday, November 13, 1981

The reopened evidentiary hearing in the above-
entitled matter convened at 9:00 a.m., pursuant to recess.

1 BEFORE:

2 GARY MILHOLLIN, Special Master
Atomic Safety & Licensing Board

3

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P R O C E E D I N G S

1

2

(9:07 a.m.)

3

JUDGE MILHOLLIN: The hearing will come to order.

4

Mr. Blake, will you have Mr. Hukill resume the

5 stand?

6

MR. BLAKE: Yes, sir. While he is doing that, I

7 have several preliminary matters.

8

JUDGE MILHOLLIN: Very well.

9

MR. BLAKE: First, I want to alert the parties

10 that I have instructed our office in Washington to file

11 today with the Appeal Board a notice of withdrawal of our

12 appeal on confidentiality. Our office will be notifying the

13 Appeal Board this morning that we are withdrawing our

14 appeal, and we will be filing notice of withdrawal this

15 afternoon, or as soon as it can be prepared down there.

16

Second --

17

JUDGE MILHOLLIN: Mr. Blake, are you planning to

18 serve on the Appeal Board the actual stipulation?

19

MR. BLAKE: I am. I drafted last night a notice

20 of withdrawal, and have telecopied it down to Washington to

21 be finalized and served. That draft that I have done

22 contemplates as an attachment the stipulation and the order.

23

As a second matter, I have served on the parties

24 up here this morning we are undertaking to serve by mail on

25 others on the service list that stipulation and related

1 order of Judge Milhollin on confidentiality.

2 As a third matter, on sequestration, I have
3 drafted a memorandum which I would intend to send forward to
4 each of the individuals on the Attachment 1 to the
5 sequestration order. I will provide copies this morning to
6 the parties for their okay on its form, and presumably, if
7 we can get that at least by the end of the break this
8 morning, then I can provide it to you, Judge Milhollin, for
9 your review and approval as well.

10 It anticipates that we would send -- I would
11 undertake to send the sequestration order to each of the
12 individuals named or identified by letter on Attachment 1 to
13 the sequestration order. We would intend it to do this by
14 mail, getting proof of service from the post office on
15 mailings. It would take care of all current licensee
16 employees and ex-licensee employees as well. We would send
17 it in the case of ex-employees to the last known address
18 that we have, which I am informed has a good chance of
19 making it, and to the extent it does not, it would come back
20 to us and we would be alerted that it had not done so.

21 That would cover all individuals, I believe, on
22 that list, with the sole exception of YY, who I understand,
23 Judge Milhollin would take care of, he having taken over
24 communications with YY. So, I will undertake to distribute
25 copies of that this morning for everyone to review.

1 I think that is all I have.

2 JUDGE MILKOLLIN: Very well. Thank you, Mr.
3 Blake. We are ready to resume cross examination. Last
4 evening, we left open the question of whether Ms. Bradford
5 would have additional questions. Do you have additional
6 questions?

7 MS. BRADFORD: Yes, I do.

8 JUDGE MILHOLLIN: Very well.

9 Whereupon,

10 HENRY D. HUKILL,
11 the witness on the stand at the time of recess, having been
12 previously duly sworn, resumed the stand and was examined
13 and testified further as follows.

14 CONTINUED CROSS EXAMINATION

15 BY MS. BRADFORD:

16 Q Good morning, Mr. Hukill.

17 A Good morning.

18 Q Mr. Hukill, I would just like to quickly recap a
19 few things. Do you have the TMIA Exhibit 60 with you today?

20 A Yes.

21 Q Could you turn to the attachment in the back?

22 Now, it was my understanding that yesterday you
23 told me that there were two things that you were trying to
24 elicit from the interviewees on this list. One of them was
25 -- and both of those things involved rumors. One of the

1 items was who they heard the rumor from, and what it
2 involved. Is that correct?

3 A No, ma'am. Not exactly. What I tried to elicit
4 from each and every operator that I talked to was, Number
5 One, that he understood and fully agreed with the letters
6 that were sent to him by Bob Arnold and I concerning his
7 responsibilities as an operator and as an operator of a
8 company that is regulated, that he understood completely his
9 responsibilities for safe operation of the plant, for the
10 safety of the public, and he understood that, and then,
11 thirdly, I asked him two specific questions.

12 I asked him the question, Number One, did you
13 cheat on the NRC examination, the ATTS exam, the Kelly exam,
14 and the Category T, and I said, I am specifically limiting
15 to that, because back farther I was not here and I would not
16 know about it, but I asked him a second question, a very
17 specific question, did he know of anyone who cheated on
18 these exams.

19 Now, in the few cases where they answered -- they
20 all answered no to the first question. In the few cases, in
21 the second type, where they gave me an answer such as, well,
22 I heard rumors, or this sort of thing, I told them I could
23 not deal in rumors, that I could not track rumors, that I
24 had to have facts and I had to have names, and I repeated
25 the question to them, and said, do you know of anyone who

1 has cheated, or did you see anyone cheating, or do you have
2 any knowledge of any cheating on these examinations?

3 And at that point each and everyone of them, as I
4 remember, said, no, I do not. I cannot track down the
5 rumors. The rumors are just rumors.

6 Q Okay. For whom did you prepare this chart?

7 A For myself. I needed some way to keep track of
8 who I talked to, and who I had seen, and what problems, and
9 I needed some way. The comment column was just a way to
10 alert myself if there were any problems that I thought
11 should be brought up.

12 Q Was this chart subsequently the basis for a report?

13 A It was not an official report. I gave a copy of
14 this chart, I believe, to John Wilson.

15 Q Was there anyone else present at any time during
16 these interviews?

17 A There was no one present when I was actually
18 talking to the person. People walked into the room for
19 business with me, and we stopped the interview, and I
20 conducted business, and they would go out, but basically the
21 interviews were behind closed doors.

22 Q So it was just --

23 A Just myself and the person, except on occasion
24 when the secretary came in or somebody would come in for
25 business.

1 Q Okay. Did you conduct any other interviews at any
2 time since the -- since the NRC investigation has begun?

3 A Yes, I have had group interviews with the
4 operators. I have also had one or two interviews with
5 operator FF.

6 Q You say you had more than one interview with Mr.
7 FF?

8 A Yes.

9 MR. BLAKE: Excuse me. Mr. FF has expressed his
10 desire to use his name, and that is Mr. Shipman.

11 (Whereupon, counsel for TMIA conferred.)

12 BY MS. BRADFORD: (Resuming)

13 Q Now, for Mr. F, Number One, you have indicated no
14 problems, and I now take it that means that he understood
15 your directions, which were the subject of the letter, that
16 he did not cheat on any exam, and that he did not know of
17 anyone to cheat. Is that a correct statement?

18 A It means he clearly understood the point of the
19 two letters. It means he clearly understood his
20 responsibilities as a licensed operator. It means he stated
21 he did not cheat on any of the exams, and he stated that he
22 did not know of anyone who cheated. And again, in these
23 comments, these are just my own way of indicating to myself
24 what the problems were. I had no idea when I wrote this
25 that it was going to go before this court.

1 Q And the same would be true for Number Two on your
2 list, Mr. E? Is that correct?

3 A Yes.

4 Q On Number Three, Mr. S, would you read that
5 notation for me, please?

6 A It says, "No problems, he will give me his exam if
7 I ask him and we really need it."

8 Q Could you explain that to me, please, Mr. Hukill?

9 A Yes. I believe Operator S wrote the NRC and asked
10 for his exam to be delivered to him personally, and the
11 company did not have a copy of his exam. Now, it was only
12 one of them. He took an SRO and an R exam. He only
13 received one of them. He had it at home. I do not know
14 whether he had refused to give it to the company or not. I
15 asked him specifically if we wanted it would he give it to
16 me for use in our preparation, and he said he would have no
17 objection to that.

18 Q In preparation for what, Mr. Hukill? I mean, why
19 did you need the exam?

20 A I think we were collecting all the exams in
21 preparation for this testimony. I do not know that, but I
22 figured we might want his exam and we might need his exam to
23 go over it and review it, and if we did, I wanted to know I
24 could get his exam.

25 Q And did Mr. F subsequently give you his exam?

1 A No, he did not. I have not asked for it. Now, he
2 may have given it to someone else, but he has not given it
3 to me.

4 Q Mr. Hukill, will you read the notation for Mr. GG,
5 who is Number Five on your list, please?

6 A It reads, "No problems, still has question with
7 Wilson, same answer as W on T examination."

8 Q Did you pursue that?

9 A Yes, I pursued it once. I called Operator GG and
10 asked him if he had taken care of this with Mr. Wilson. He
11 said he was still working on it.

12 Q First, let me just back up. Did you perceive that
13 Mr. GG having the same answer on his exam was a problem?

14 A He stated emphatically to me that it was not.

15 Q But you did pursue that a little further, and I
16 think you said you referred him to Mr. Wilson. Is that --

17 A No, I called him and asked him, and he told me he
18 was still looking for it. I think he was looking for a
19 training handout that had the answer that was on his exam,
20 and he had not been able to locate that yet.

21 Q And was he eventually able to locate that?

22 A I cannot answer that. He had not when I talked to
23 him about a week ago.

24 Q Number Six --

25 JUDGE MILHOLLIN: Excuse me. While we are on the

1 subject of GG I have a question. Have you compared GG and
2 the W's answers on the Category T makeup.

3 THE WITNESS: No, sir, I have not. Mr. Wilson was
4 taking care of all that. I have not done that. I have not
5 seen those exams.

6 JUDGE MILHOLLIN: Did you personally look at any
7 of the examination answers?

8 THE WITNESS: Just O and W.

9 JUDGE MILHOLLIN: So you could not say whether you
10 personally think that GG cheated, for example?

11 THE WITNESS: No, sir. I could not say whether I
12 personally think he cheated. He was very emphatic in his
13 answer to me that he did not.

14 JUDGE MILHOLLIN: What I am trying to establish is
15 whether you personally pursued the issue by looking at the
16 answers to the examinations, and you are saying that you did
17 not. Is that right?

18 THE WITNESS: No, sir. I was gone about a week or
19 about ten days, I think, when most of this came up, and to
20 the best of my knowledge John Wilson was appointed to do the
21 official investigation for the company.

22 JUDGE MILHOLLIN: I see.

23 BY MS. BRADFORD: (Resuming)

24 Q Mr. Hukill, why don't we just go down the list,
25 and then I will come back with some questions about the

1 overall document?

2 Could you read to me the comment attached to Item
3 Six, Mr. T?

4 A Item C's answer reads, "Don't fully signed for
5 exams."

6 Q What does that mean, Mr. Hukill?

7 A It means I had to do considerable talking, I do
8 not know how long I talked to him for, I guess an hour and a
9 half or an hour and 45 minutes, in trying to explain to him
10 the importance of the NRC's exam and what it really meant,
11 both to us as a company, what it meant to me, how it is
12 really a measure of his knowledge, and a measure of his
13 minimum knowledge to be qualified as an operator, and to
14 explain to him the purpose of the NRC exam and why they were
15 taking it and why I fully supported it and the company fully
16 supported it, and some of our operators, as you will notice
17 in here, I have had to talk to them in this area and explain
18 this to them so they understand the purpose.

19 Q And that was the subject of your letter, the
20 letter which is attached to this.

21 A Yes. Yes.

22 JUDGE MILHOLLIN: Now, while you were talking to
23 T, did you ask T about any rumors which may have originated
24 with his wife?

25 THE WITNESS: I have got to find out who T is,

1 Your Honor. I think I know.

2 (Pause.)

3 THE WITNESS: No, sir, I did not ask him. As I
4 remember, I did not ask him about any rumors associated with
5 his wife, although I knew about those. They came up, I
6 believe, during the NRC's first investigation. I also knew
7 that I believe the NRC visited his house, as I remember.

8 JUDGE MILHOLLIN: So you knew of the rumors
9 concerning his wife at the time you interviewed him? That
10 is, at the time we are talking about in connection with this
11 list of notes.

12 THE WITNESS: Yes, sir. But again, my purpose in
13 talking to these operators was clearly in my mind not a part
14 of the company's investigation. It was a part of my
15 responsibility to make sure these operators understood where
16 I stood and where the company stood on these policies.

17 JUDGE MILHOLLIN: Do you know whether someone else
18 in the company was following up on rumors of this kind?

19 THE WITNESS: Again, I was told that John Wilson
20 was running the company's investigation into this affair,
21 and whether he saw his wife or not I do not know.

22 JUDGE MILHOLLIN: All right. Thank you.

23 BY MS. BRADFORD: (Resuming)

24 Q I believe you indicated before, Mr. Hukill, that
25 you spoke with Mr. Shipman on two occasions.

1 A I think it was two. That is stretching my memory,
2 but at least one, and I think -- I spoke to him on at least
3 two occasions, this occasion, and I know of one other
4 occasion. There may have been more, but I am not sure.

5 Q And you have already testified that the subject of
6 this interview was to instill in the interviewees the
7 company policies and to discuss the subject matter in this
8 letter.

9 A Yes.

10 Q What was the subject of the other interview?

11 A The other interview with Mr. Shipman?

12 Q Yes.

13 Q The subject of the other interview with Mr.
14 Shipman was to make it absolutely clear to him in rather
15 strong terms, which I do not usually use, in very clear and
16 very strong terms, how I viewed his actions, how we, the
17 company, and I myself personally would not stand for the
18 kind of actions that he demonstrated during the exam, and
19 how that I considered that he cheated as well as the person
20 who took the -- who received the information from him, but I
21 frankly spent an hour and a half doing most of the talking.

22 Q What was his response?

23 A His response was that at the time he was getting
24 the coffee and was asking -- was asked the question, it was
25 almost a spontaneous answer. His response was that soon

1 thereafter he began to realize he had done something wrong,
2 and that it was wrong, and certainly since the O and the W
3 incident has broken, and certainly, especially since he
4 talked to me, he was absolutely certain that his actions
5 were wrong and would not be condoned.

6 Q Do you think that what Mr. Shipman did was
7 cheating?

8 A Yes.

9 Q A despite the spontaneity which he has claimed?

10 A Yes.

11 Q Thank you. Could you read the notation which is
12 attached to Mr. A, please?

13 (Pause.)

14 A Yes, the notation attached to Mr. A is "No
15 problems, also talked to him about a week." That meant I
16 talked to him about a week ago. Again, remember these notes
17 were for my own use. I had talked to Mr. A about a week
18 ago, because he is one of my senior people, and I spent
19 about an hour or so sitting down and talking to him about
20 just things in general in the plant, what our people were
21 thinking, what he thought we ought to be doing, and any
22 ideas he would have that I could use to instill back into our
23 people some spirit and some morale.

24 Q You said you talked to him about a week ago. By
25 that do you mean a week prior to this investigation which we

1 are now discussing?

2 A Yes, ma'am. Yes.

3 Q And at that time you talked about general problems
4 in the plant with employee morale? Is that --

5 A Yes, I asked him what his people were thinking and
6 how his people felt, had the blow of O and W passed over,
7 what his perception was of what management could do to pep
8 the people up. I talked to him about the bonus we had
9 recently given the operators, and things of this nature, and
10 how they felt about it.

11 Q You said one of the subjects was a bonus. What
12 was that bonus? Is this an annual bonus, or --

13 A No. It was not an annual bonus. It was a bonus
14 that we had that management brought about, oh, I would say
15 in the June time frame, late June time frame. Our operators
16 had been down. They were down because they felt they were
17 picked on because they had to take the examinations, because
18 they had been taking examinations for the last two years,
19 and they were down because the plant is not running, and
20 they were just generally in a down mode, and we wanted to do
21 anything that we thought was right from the management side
22 to help these people, and I realized that money does not
23 always buy people, but even before the O and W incident --
24 and I was not sure at one time whether it was before that,
25 but it was -- I had had a suggestion from Mike Ross that I

1 take the management a plan to issue each of the operators a
2 bonus, and we did issue that bonus.

3 I cannot remember what time frame. A month or two
4 ago. And we gave each of the operators a bonus, and so I
5 talked to Operator E about the bonus and how it was
6 received, and what the people thought about it, and that
7 sort of thing.

8 Q You say that the operators are -- were unhappy
9 about the exams, and that was one of the reasons for low
10 morale. Apart from the cheating incident, with the cheating
11 incident, I take it then -- I mean, investigations that took
12 place after that, and are currently taking place, is -- did
13 morale sink even further? Is that your testimony?

14 A Do you mean after the O and W incident, did morale
15 sink further?

16 Q Yes.

17 A Yes, ma'am.

18 Q And at that time, were operators leaving the plant
19 or indicating that they might leave the plant?

20 A At the time immediately after the O and W
21 incident, there were a number of operators who said they
22 might leave the plant, yes.

23 Q And before that?

24 A Yes.

25 Q Around --

1 A I had heard of one or two who had planned to leave
2 primarily as a result of our not starting up, and their
3 feeling of useful -- uselessness in not being able to
4 accomplish and do what they were trained to do.

5 JUDGE MILHOLLIN: Excuse me. Mr. Hukill, could
6 you tell me who the operators were?

7 THE WITNESS: That is rather difficult. I can
8 remember --

9 JUDGE MILHOLLIN: By their letters.

10 THE WITNESS: He may not be on here because he has
11 already left. Mr. X at one time had indicated he was going
12 to leave. Mr. V, I believe, had also indicated he might
13 leave, but the exact time frame of those, Your Honor, I am
14 just not sure.

15 JUDGE MILHOLLIN: You said that some employees
16 said they might leave as a result of the cheating incident.
17 Do you recall which -- who they were?

18 THE WITNESS: No, I cannot, Your Honor. There was
19 a general very down period right after the O and W incident,
20 and the word was, and you could hear from the plant people
21 said they were going to leave, but exactly who I do not know.

22 I can tell you who has left. I know that. But I
23 cannot tell you who said they were going to leave.

24 JUDGE MILHOLLIN: You have told us that X and V
25 said they were going to leave. Is that right?

1 THE WITNESS: I think so. Yes, sir.

2 JUDGE MILHOLLIN: Do you know whether either of
3 them has gone, or is there still some other person who has
4 left?

5 THE WITNESS: No, both of them -- both of them --
6 let's see. X has left. I believe V is due to leave
7 tomorrow. He told me he would come and see me before he
8 goes, and he has not seen me yet, so I think he is due to
9 leave tomorrow.

10 JUDGE MILHOLLIN: Do you believe the reason for
11 their leaving is connected to the O and W incident?

12 THE WITNESS: In these -- in these two cases,
13 although it might have some effect, I really do not think
14 so. I think X had planned to leave anyway. I think he had
15 planned to look ahead and go on to other things. In the
16 case of V, I have talked to him at length, and although the
17 O and W incident certainly has some impact, the basic impact
18 is really that he feels he cannot do his job, and he is
19 frustrated because he is really not doing what he is trained
20 to do.

21 JUDGE MILHOLLIN: Because the plant is down, you
22 mean?

23 THE WITNESS: Yes, sir.

24 JUDGE MILHOLLIN: Has any employee left because of
25 the cheating incident, or primarily because of the cheating

1 incident, other than O and W?

2 THE WITNESS: I really cannot answer that. We
3 have had an increase in attrition since the O and W
4 incident. And I have talked to every one of them that is
5 mentioned in every case, but as that is the reason and the
6 only reason, none of them has stated that.

7 JUDGE MILHOLLIN: Are there others in addition to
8 X and V that you know of?

9 THE WITNESS: Yes, sir.

10 JUDGE MILHOLLIN: Who are -- who are they?

11 THE WITNESS: I will have to go down the list to
12 check. There are a total since the exams, there are a total
13 of seven who have left, including O and W. Operator SS has
14 left. He is a single gentleman who owns a motorcycle, and
15 every once in a while I just think he wants to get up and
16 go. As I mentioned, Operator V has either left or is
17 leaving in the very immediate future.

18 Operator O, as you know, has left. Operator X, I
19 mentioned, has left. Operator HH has left.

20 JUDGE MILHOLLIN: In the case of HH, do you think
21 the O and W incident was a factor, a substantial factor in
22 HH's decision?

23 THE WITNESS: In talking to me, he mentioned it,
24 but he did not say that that was the only reason he was
25 leaving.

1 JUDGE MILHOLLIN: I asked you whether you thought
2 it was an important factor in his decision.

3 THE WITNESS: I am really not sure. I am just not
4 sure in his case.

5 JUDGE MILHOLLIN: All right.

6 THE WITNESS: Operator NN has left. He left
7 before the exam results were in. I think that covers them.

8 JUDGE MILHOLLIN: I have one more question with
9 respect to Mr. Hukill's discussion with A. Did you
10 specifically ask A whether he observed any cheating in the
11 room in which he took the exam? I, like everyone else, have
12 a limited memory, but I seem to recall that A was in the
13 same room with O and W, and that he may have been seated
14 behind O and W. I assume if that is wrong I will be so
15 notified immediately by someone.

16 (General laughter.)

17 JUDGE MILHOLLIN: So, my question is, did you ask
18 him whether he saw cheating by O and W?

19 THE WITNESS: Your Honor, I asked every single
20 operator on this list two specific questions, did they
21 cheat, and the second question I asked them in very specific
22 terms, after I read them a statement on what -- only they
23 knew they had cheated, I asked in very specific terms if
24 they knew or had observed anyone else cheating. So, I did
25 ask A that question. Yes, sir.

1 JUDGE MILHOLLIN: The reason I ask you is because
2 if I were asking A that question, I would also ask it in a
3 more specific way. I would ask A whether during the rather
4 long time period he spent sitting behind O and W, he saw
5 anything at all which looked like cheating.

6 THE WITNESS: Your Honor, I remember for the NRC
7 investigation that I believe he said he was too busy with
8 his own exam, and he did not, so I had already had that
9 information, because I sat in with him, as I remember,
10 during the NRC's investigation.

11 JUDGE MILHOLLIN: So you did not look him in the
12 eye and ask him to repeat it to you?

13 THE WITNESS: No, sir. I am not sure at the time
14 I really remembered where he was sitting, because I did not
15 remember all the seating arrangements, and frankly, I do not
16 think I had them available to me at that time.

17 BY MS. BRADFORD: (Resuming)

18 Q Mr. Hukill, several of the people that you
19 indicate have since left or are planning to leave, you have
20 interviewed and listed here, Mr. SS -- excuse me. First, X,
21 I am sorry, who is the last one on the second page of this,
22 and beside his name there you have indicated "No problems."
23 Did you know then that he was going to leave the company?

24 A Yes, I knew then that he was going to leave the
25 company.

1 Q Did you not think that was a problem for the
2 company?

3 A Yes, I knew that was a problem for the company,
4 but it was so well known, I did not jot it down on here.

5 Q What -- what did the "No problems" mean in
6 relationship to Mr. X?

7 A I will answer again what the "No problems" means.
8 I thought I had answered a number of times. "No problems"
9 meant to me that they understood what was in the letters
10 from Mr. Arnold and myself, that they understood that their
11 responsibilities as an operator for the safety and health of
12 the public, that they supported those concepts, and that
13 they had answered, no, that they did not cheat, and no, that
14 they did not see anyone cheat.

15 Now, on some of the other comments I jotted down
16 things just to jog my own memory.

17 Q In relationship to Mr. X, even though you knew
18 that he was leaving the company, you thought it was
19 important that he respond positively to the items contained
20 in the letter.

21 A Yes, because he was still an operator, and he was
22 still on shift work as a licensed operator, and I felt it
23 was important at that time to ask him.

24 Q I see. And Operator Z, Mr. Z, did you, when you
25 asked him about rumors, did you ask him about any specific

1 rumors?

2 A No, I will repeat again that if the operator told
3 me he had heard rumors, I told him he had to tell me facts.
4 He had to tell me something that I could work on and that I
5 could investigate and find out an answer to, that rumors did
6 not help me. But I cannot remember his specific answer, but
7 he did -- again, everyone on this list then did specifically
8 state that they did not see or know specifically of anyone
9 who had cheated on any of those four exams that I mentioned.

10 Q Are you aware that Mr. V has alleged that Mr. U
11 cheated on the NRC exam?

12 (Pause.)

13 JUDGE MILHOLLIN: You said that Mr. U has
14 alleged? I am sorry. You said that Mr. --

15 MS. BRADFORD: Mr. V.

16 THE WITNESS: I can find V. I haven't found U.

17 JUDGE MILHOLLIN: -- has alleged that Mr. U
18 cheated?

19 MS. BRADFORD: Mr. U cheated.

20 MR. BLAKE: I have an objection to the question
21 unless there is shown to be a basis for that. I am aware of
22 no basis for that allegation.

23 JUDGE MILHOLLIN: Well, that is not what the
24 question is. The question is whether he is aware of any
25 allegation.

1 MR. BLAKE: No, I do not think that was t
2 question. We might have it read back. I think it was, are
3 you aware that Mr. V has alleged, which is asserted to be
4 fact, that U cheated?

5 BY MS. BRADFORD: (Resuming)

6 Q Let me rephrase my question, Mr. Hukill. Are you
7 aware of any allegation that Mr. V has made in reference to
8 Mr. U?

9 A I am not aware of any allegation.

10 (Whereupon, counsel for TMIA conferred.)

11 Q Had you heard any allegations in reference to Mr.
12 U?

13 A Yes, I had heard an allegation that he had made a
14 phone call to the shift supervisor's office, I believe,
15 during one of the examinations.

16 Q Had you heard any allegations that Mr. U carried
17 crib sheets into an exam?

18 A I do not believe so at the time that I talked to
19 him. It seems to me I had read that somewhere since then in
20 some of the testimony.

21 Q Had you heard allegations that Mr. U wrote answers
22 on his hand?

23 A I had not heard that. Again, I believe I read it
24 in the last day or two in reviewing testimony.

25 JUDGE MILHOLLIN: Your testimony is that you had

1 not heard that when you conducted these interviews. Is that
2 right?

3 THE WITNESS: That is correct, Your Honor.

4 (Whereupon, counsel for the 'IA conferred.)

5 BY MS. BRADFORD: (Resuming)

6 Q When did you first hear about the allegation that
7 Mr. U made a telephone call?

8 A I believe it was one night in Mr. Arnold's office
9 a number of weeks ago. If my memory is right, when Mr.
10 Toole came up and told us about it.

11 Q Was that in -- before this interview?

12 A Yes, I think it was.

13 Q And did you -- did you ask Mr. U about those
14 allegations -- excuse me, that allegation?

15 A Yes, I think I did. If you look on the sheet, I
16 said, "discussed his sworn statement and phone call."

17 Q And how did he respond to that?

18 A Very violently.

19 Q Would you explain that, please?

20 A He denied them emphatically, and said they were
21 wrong, and it was not him, and that he had nothing to do
22 with it, and he did not make any phone call.

23 Q Are you familiar with Mr. KK?

24 A Yes, ma'am, I am.

25 Q Do you have any reason to believe that Mr. KK

1 would make unfounded allegations?

2 A I do not have any reason to believe he would make
3 unfounded allegations in that he was very, very upset about
4 the action taken on O and W, felt the company was wrong,
5 felt we had overresponded, felt we had not treated our
6 people right, and specifically came in to see me about that
7 shortly after O and W were discharged.

8 Q Shortly after Mr. O and Mr. W? That was in July?

9 A It had to be in that time frame, or it was shortly
10 thereafterwards.

11 Q At that time did you -- did he discuss --

12 A It was probably August, because it was a week or
13 so after O and W left.

14 Q Did he talk to you then about the phone call?

15 A No, ma'am, not in any way.

16 JUDGE MILHOLLIN: Mr. Hukill, I think I asked you
17 whether you knew about the rumor concerning U at the time of
18 the interview, did I not, and I am trying to clarify your
19 testimony. So, now it is your testimony that you knew of
20 the rumor concerning Mr. U at the time of your interview
21 with Mr. U?

22 THE WITNESS: Your Honor, I am mixed up. I do not
23 know what you are talking about.

24 MR. BLAKE: There may be some confusion here
25 between rumor and the allegations by Mr. KK regarding the

1 telephone call allegedly made by Mr. U.

2 JUDGE MILHOLLIN: Well, all right.

3 THE WITNESS: You asked me --

4 MR. BLAKE: Regarding other allegations about Mr.
5 U, I believe the witness has said he did not know at the
6 time of the interview, but he did know about the allegations
7 made by Mr. KK with regard to the telephone call allegedly
8 made by Mr. U at the time of the interview.

9 JUDGE MILHOLLIN: All right. It is a good thing I
10 brought this up, because I think the record is confusing as
11 it now stands as to his knowledge at the time of the
12 interviews, so his testimony is -- your testimony is, Mr.
13 Hukill, that you knew of the allegation by KK at the time of
14 your interview with U, Mr. U?

15 THE WITNESS: Yes, sir, that is correct.

16 JUDGE MILHOLLIN: But you did not know of the
17 rumors concerning other cheating by Mr. U?

18 THE WITNESS: No, sir. I knew of no other
19 allegations or rumors about him at that time. The telephone
20 call was the only one I had heard.

21 JUDGE MILHOLLIN: The other allegations being, as
22 I recall, involved writing on his hand and using a crib
23 sheet.

24 THE WITNESS: Yes, sir.

25 JUDGE MILHOLLIN: You did not know about those at

1 the time of the interview?

2 THE WITNESS: I did not know about those.

3 BY MS. BRADFORD: (Resuming)

4 Q Mr. Hukill, how much time did you spend overall on
5 this -- with all of the interviews?

6 A I could add it up. It seemed like forever, but it
7 was 27 times, about two hours. They were about from an hour
8 and a half to two hours, many of which were in the evening
9 time, or I would come in early in the morning and catch them
10 when they came off the 7:00 o'clock shift.

11 Q Now, you said that you were aware that Mr. Wilson
12 had been assigned to conduct investigations into the
13 rumors. Did you report to him on your interviews?

14 A Yes, to the best of my memory, I reported to him
15 and told him when I was completed and gave him this sheet.

16 Q Oh.

17 (Whereupon, counsel for TMIA conferred.)

18 MS. BRADFORD: I do not have any more questions.
19 Thank you, Mr. Hukill.

20 JUDGE MILHOLLIN: Mr. Hukill, there is one comment
21 on your notes which perhaps you might explain. With respect
22 to Mr. T, who is Number 16 on my copy of this list of notes,
23 I guess we could rephrase Mr. T's comments as, or your
24 notes, as containing anger at something which I cannot
25 read. I assume that is "letter". Is that right?

1 THE WITNESS: Yes, sir. That is "letter".

2 JUDGE MILHOLLIN: That refers to the letter which
3 was sent to the operators by the company?

4 THE WITNESS: No, it referred, as I remember, it
5 referred specifically to my letter, the letter that is
6 attached to my testimony.

7 JUDGE MILHOLLIN: Why do you think that -- well,
8 can you tell us what Mr. T said?

9 THE WITNESS: I cannot tell you exactly what he
10 said. I can paraphrase. You know, I can give you the feel
11 of what -- of how he felt. He took the letter as an insult,
12 to indicate that we did not trust him, that my letter meant
13 to him that we, management, myself, did not believe he
14 understood what the NRC exams meant, that we did not have
15 trust in them as operators, and that it was just one more
16 blast at them down at the bottom of the pile that management
17 was pouring down on top of them.

18 He personally felt that the NRC exams were
19 absolutely terrible, and in no way reflected whether an
20 operator really knew how to operate the plant or not.

21 After a lengthy discussion with him, I think he
22 understood what I was trying to say and what the letters
23 really were meant to say. These comments were his initial
24 reactions in my discussions with him. I spent a lengthy
25 period going over with him that management understood that

1 the NRC exam was only one part of the qualification process,
2 and that certainly job performance, certainly attitude
3 played a great deal or had a major impact on our decision,
4 Number One, whether to send him up for the exam, and Number
5 two, if they passed the exam, whether in fact to assign him
6 to the shift.

7 So, by the end of my conversation and discussions
8 with him, I think he pretty well understood what we were
9 trying to say.

10 JUDGE MILHOLLIN: Do you think his attitude toward
11 the NRC exam was based on anything valid? In other words,
12 do you think there is a degree of truth in his attitude
13 toward the NRC exam?

14 THE WITNESS: I think the last exam, and I did not
15 read it, just from listening to the operators talk, was very
16 much different than what they had had before.

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1 JUDGE MILHOLLIN: By the last one, you mean the
2 April one?

3 THE WITNESS: Yes, sir, and it was based on
4 material that we had sent in, our training material. The
5 operators felt it was a very, very hard exam, and asked a
6 lot of theoretical questions that were not practical to the
7 everyday operation of the plant. And my answer to him was
8 that, you know, we sent the training material in, this is
9 what we trained on, that the exams, as all exams, do vary,
10 and they do not express absolute assurance that you can
11 operate the plant, but they are a major part of the
12 qualification process, and part of the licensing process, in
13 that they establish a certain minimum level of knowledge
14 that an operator has to have before he is qualified to go
15 into that plant.

16 As I understand it, the NRC is going to and has
17 required some of our new operators to go to the trainer to
18 train on the practical part of the exam, which I think is
19 good, and I fully support, and they also give oral exams,
20 which back up these written exams, so they get a better feel
21 of the person, they can take the person through the plant to
22 again obtain a better understanding of the practical part of
23 the operation.

24 But as I said, I feel the exams themselves,
25 although there may be a question or two that are not quite

1 down the line or not what we need or are absolutely
2 essential to establish a minimum knowledge level.

3 During my career in the Navy nuclear program,
4 everywhere, before you stepped or moved to another progress,
5 you took another exam, and as part of every qualification
6 for every watch, station in the Navy -- you know, I took an
7 engineer's exam that lasted eight hours. I had to take an
8 exam to be a commanding officer, and that exam did not
9 qualify me to be a commanding officer, but it established a
10 certain minimum level of knowledge that was considered
11 essential for me to be able to fill that role as commanding
12 officer, and that is what I think the NRC exams do, and that
13 is what I have tried to tell our people.

14 And in his particular case, I think he understands
15 that now. He was mainly upset about the previous exams. I
16 think he was also upset about O and W. As I remember, he
17 had been a shift foreman with one of them.

18 JUDGE MILHOLLIN: He felt the exam was unfair in
19 the sense that --

20 THE WITNESS: By the way, he did very well. He is
21 a very smart man.

22 JUDGE MILHOLLIN: I am just trying to understand
23 myself the attitude toward the examination, because I think
24 it is an important part of the case. You are saying -- your
25 testimony is then that the attitude of T was that there was

1 a fair amount of surprise with respect to the emphasis on
2 the exam.

3 THE WITNESS: Yes, sir.

4 JUDGE MILHOLLIN: That is, that the operators did
5 not expect --

6 THE WITNESS: The emphasis was on the OARP program.

7 JUDGE MILHOLLIN: And that was not expected by the
8 operators.

9 THE WITNESS: I do not think it was, although it
10 should have been, because we sent the material in on which
11 they based the exam.

12 JUDGE MILHOLLIN: Did your training program
13 emphasize that material to the same degree as the exam did,
14 or was there a disproportion between the emphasis on
15 training and the emphasis on the exam? I ask that because I
16 gave a fair number of exams, and I do think it is important
17 to have some connection between the emphasis in class and
18 the emphasis on the exam.

19 THE WITNESS: I really cannot answer that, because
20 I was not here during the time of the OARP. I was not
21 working for the company then. So it would be hard for me to
22 answer that. Listening to the operators, they felt that it
23 was disproportionate, that a lot of what had been emphasized
24 in the classroom was not what was on the exams.

25 BY MR. CLEWETT:

1 Q Good morning, Mr. Hukill. My name is John
2 Clewett. I will be asking you a few questions.

3 Turning first of all to Page 2 of your prepared
4 testimony, in the first sentence of the first full
5 paragraph, you state that prior to the time when the O and W
6 incident occurred, you had absolutely no knowledge or
7 indication of any kind that cheating could have occurred.
8 Would it be correct to infer from this that you did not
9 believe that cheating was possible on the exams?

10 A No, it would not be correct to say that I did not
11 think it could be possible because, you know, I am sure it
12 was possible, but it just did not -- it never occurred to me
13 that it happened, and I had never -- I had not heard
14 anything of it and frankly had not thought about it.

15 Q You were aware at that time, presumably, of the
16 incident between VV and O.

17 A I am not aware of what that is.

18 Q All right. Did you have any --

19 A I have not answered that question yet.

20 (Pause.)

21 A No, I was not aware of that. To the best of my
22 knowledge, that was before I came to the company.

23 Q Did you have any procedures in place at the time
24 that the O and W incident broke to provide you with
25 assurance that cheating would not occur?

1 A To the best of my knowledge, no, we did not have
2 any formal written procedures in place at that time.

3 Q Why was that?

4 A I guess I would consider it from my previous
5 experience as unnecessary. At that time I thought it was
6 unnecessary. I have always considered cheating wrong,
7 unacceptable, totally unacceptable. I had never found it
8 necessary to write an instruction that said not to cheat. I
9 do not even believe the Naval Academy had one when I went
10 there. I am not sure, but I just -- it is known that
11 cheating is not condoned.

12 Certainly since this time we have learned our
13 lesson and have written such a procedure, but at that time I
14 do not believe there was such a procedure.

15 Q What is the nature of that procedure that you have
16 written now?

17 A It is a training department procedure, and it
18 talks about cheating. It talks about, you should not
19 cheat. It provides a cover sheet that goes on every single
20 examination. It establishes seating arrangements, and
21 requires that seating arrangements be documented, that the
22 exams be documented. It requires that the person taking the
23 exam sign the answers are his own and no one else's, and
24 that he has not cheated, and pretty extensive instruction to
25 prevent this type of thing from happening.

1 Q You mentioned seating arrangements. Are those --
2 do I understand you to have indicated that a record is kept
3 of what the seating arrangement was, or that in addition to
4 that there is assigned seating?

5 A There is a copy of that instruction in somebody
6 else's testimony. I believe it requires both for important
7 examinations, such as requalification exams, there will be
8 assigned seating and that that seating arrangement will be
9 documented and recorded. It is in Mr. Newton's testimony, I
10 believe.

11 Q The last full sentence on that page, could you
12 explain why you feel naive?

13 A There were a lot of things that when I first came
14 to work here that I decided I wanted to get into, and as I
15 had mentioned somewhere else in my testimony, I had gotten
16 together with every single operator in the plants last year
17 to go over with him my ideas, my strong views on
18 professionalism, what I considered to be professionalism,
19 and what I considered their responsibilities were for the
20 safe operation of the plant.

21 And what I mean here in retrospect is that as I
22 remember I never specifically covered cheating, because it
23 just never entered my mind that the kind of people we had
24 working out there would participate in cheating. So, I felt
25 naive in that I had had the opportunity when talking with

1 these people to certainly express my views on that, and I
2 had not done it.

3 Q On Page 3, about four lines down, you refer to the
4 issue of honesty. Would you -- Do you consider honesty to
5 be a safety-related issue?

6 A Yes, sir. Absolutely.

7 Q It could bear, for example, on the appropriate
8 response in the case of a TMI 2 type accident if such an
9 accident were to occur at Unit 1, I take it.

10 A Yes, sir.

11 Q You also refer on Page 3 in the context of your
12 discussion about the Navy, in addition to cheating and
13 lying, you refer to falsification of records. Are you aware
14 of any instances where operators have been involved in
15 falsification of records?

16 (Pause.)

17 A No, sir, none that I can think of right now.

18 (Pause.)

19 Q On Page 5, you state that "I do believe that I and
20 my managers can make it absolutely clear to our personnel
21 that honesty is absolutely necessary and required." This
22 would seem to imply that this is not yet done. Is that
23 correct?

24 A No, it has been done. As I explain later on in
25 the testimony, I have personally again talked to each

1 operator. I also talked to the operators as a group, and I
2 mean as a group by shift. I came in at odd hours to talk to
3 them as a shift. They clearly understand our position. The
4 word "can" means to me a continuing thing, that we must
5 ensure that it continues, that it just does not drop once
6 this issue is dropped.

7 Q In the last sentence on that page, you refer to
8 shortcomings in terms of -- in terms of honesty and
9 integrity. How much of a shortcoming is acceptable in your
10 view?

11 A I do not know how to quantify that. I would have
12 to take it case by case, and look at it, you know. I
13 believe that if you take change on the change line that is
14 not yours when you are getting your money back, that that is
15 cheating. I do not think that that is acceptable. So, as
16 far as honesty goes, you must be honest all the time.

17 Q Do you have any standard that you can articulate
18 as to when dishonest behavior would be subject to sanctions
19 and when it would not?

20 (Pause.)

21 Q Do you mean by sanctions if someone was dishonest
22 we would not do anything about it? Is that what you mean?

23 A Yes. You indicated that taking change that is not
24 yours is unacceptable. And implicitly I assume you were
25 saying that the smallest dishonesty is still dishonesty.

1 And what I am trying to get at is whether you have developed
2 in your own mind or in some more formalized way any method
3 of distinguishing between those instances which are wrong,
4 are not sufficiently wrong to have anything serious done
5 about them and those that are.

6 It would seem that in your role as the senior
7 management person for TMI 1, that you should have some
8 standard by which you function in that regard.

9 A I have an absolute standard, yes, sir, that any
10 form of dishonesty, not a mistake, but any form of
11 dishonesty is unacceptable, and that some sanction must be
12 taken for any form of dishonesty.

13 Q So then the sanction would vary with the form of
14 the dishonesty.

15 A I think in every case when you are dealing with
16 people you must look at the individual case and review it
17 and take into account all the facts and then make your
18 decision as to what action should be taken.

19 Q If another incident arose which was similar to the
20 Shipman incident, would you be likely to terminate that
21 individual?

22 A I think with the lesson that has been learned from
23 that one and what has come out, I would seriously consider
24 it, but I would again have to look at the facts. I cannot
25 sit here and tell you I would terminate him.

1 Q If Mr. Shipman did it again, would you terminate
2 him?

3 A Absolutely.

4 JUDGE MILHOLLIN: If Mr. Shipman had given an
5 answer to somebody while he was sitting in the examination
6 room, do you think that would have been more serious in your
7 opinion?

8 THE WITNESS: Yes, sir, in my mind that would be
9 more serious.

10 JUDGE MILHOLLIN: More than at the coffee stand?

11 THE WITNESS: Yes, because he was caught unawares
12 at the coffee stand, so I think there is some difference in
13 that.

14 BY MR. CLEWETT: (Resuming)

15 Q You did interview Mr. Shipman about this incident,
16 I take it.

17 A Yes, sir, on at least two occasions.

18 Q Did you make any attempt to inquire as to whether
19 he remembered any details about the individual that had
20 asked him the question?

21 A Yes, sir. I asked him every question I knew and
22 that I could possibly think of to gain further information
23 to identify the person, to identify the question. I made
24 every attempt I could. I asked him that question a number
25 of times.

1 Q Can you give us some examples, briefly, of the
2 sorts of questions that you asked him?

3 A I asked him who was in the area, did he remember
4 who was in the area. Did he remember who was in the other
5 room. Does he have any idea which question that was on the
6 exam that was asked, or whether it was on the exam. I asked
7 him the individual's name. I told him that it was
8 inconceivable to me that he could not remember the
9 individual's name. Those are the type questions I asked.

10 Q Did you ask anything about whether he remembered
11 whether the individual wore glasses or anything like that?

12 A No, sir.

13 Q Nothing about the general physical characteristics
14 of the person or anything like that?

15 A No, sir.

16 JUDGE MILHOLLIN: Do you think he was being
17 truthful with you when he said he could not remember
18 anything about the person or the question?

19 THE WITNESS: Yes, sir, Your Honor. I think he
20 was being truthful. He had no reason to admit to me what
21 had happened. He did admit to me what had happened. I feel
22 certain that he must have known that when he admitted this,
23 that the other questions were going to be asked, and I would
24 not see why he would not, if he was truthful enough and open
25 enough to come out and tell me what had happened.

1 I felt that he would tell me everything else he
2 knew.

3 JUDGE MILHOLLIN: The same thought occurred to
4 me. I am puzzled by this apparent unexplainable failure to
5 remember the identity or anything about the person or the
6 question. It also occurred to me that if he is a person of
7 sufficiently high ethical character to admit that this
8 happened, that he would have been shocked enough when the
9 question was asked so that he would have noticed to asked
10 him the question.

11 So, I have to say I am very puzzled by this. I
12 just thought I would let you know that, and hope that you
13 can shed any light on why it is you think this apparently
14 unexplainable event has come upon us.

15 THE WITNESS: I really do not know. It was almost
16 as if he accepted it as normal, and it did not strike him as
17 serious as I considered it to be and that he now considers
18 it to be at the time it happened, and his explanation to me
19 was that, I was just so wrapped up in that exam that I just
20 do not remember much of anything that happened. I cannot
21 explain why he cannot remember the name.

22 BY MR. CLEWETT: (Resuming)

23 Q One alternative hypothesis as to why Mr. Shipman
24 may have acted as he did in coming forward to you with his
25 account of this incident which I would like to ask you about

1 is that he might have in the wake of the commencement of the
2 NRC investigation -- he might have feared that the
3 individual with whom he spoke would for one reason or
4 another divulge the details, and that the express chance to
5 cut his losses would be to come forward sooner rather than
6 later, and that if he did not divulge the name of the other
7 person, that might make it less likely for that person to
8 come forward.

9 Does that seem to you to be a possible explanation
10 of his behavior?

11 A It certainly could be. But I know Mr. Shipman
12 pretty well. I personally know him as well, almost as well
13 as anyone in the plant. He just does not seem that kind of
14 individual that would do that. I have worked with people
15 all my life. I am not a perfect judge, as that is obvious,
16 and when you talk to him, he just does not give you that
17 kind of impression, that he would preplan something to that
18 length that was of a dishonest nature.

19 Q Does he strike you as the sort of individual who
20 would give answers on a test to someone else?

21 A No.

22 Q From your experience in the Navy, would it be
23 common practice to interrogate a suspect in the presence of
24 his immediate superiors?

25 JUDGE MILHOLLIN: Before we go into that, I take

1 it you are finished now with the incident involving Mr.
2 Shipman.

3 MR. CLEWETT: I think so, at least.

4 JUDGE MILHOLLIN: I have one more question about
5 that incident. I take it that Mr. Shipman was at the coffee
6 stand in a situation in which there could only be -- the
7 other person at the coffee stand would necessarily have to
8 be from the other room, since the rule was, only one person
9 could leave at a time. Is that right?

10 THE WITNESS: Yes, sir.

11 JUDGE MILHOLLIN: I am looking at my information
12 about who was in which room, and I see that there are only a
13 limited number of people who were in the room other than the
14 one Mr. Shipman was in. I think Mr. Shipman, according to
15 my information here, was in the non-smokers' room, and the
16 incident occurred -- can you refresh my recollection as to
17 which day this occurred?

18 THE WITNESS: No, sir. I do not remember. I am
19 not -- I do not think it is in my testimony. I do not think
20 Mr. Shipman remembers which date it occurred.

21 JUDGE MILHOLLIN: All right. That is my
22 recollection also, that he does not -- that that is another
23 one of the things he does not remember, is which day it
24 occurred. There are eight people who might have been at
25 the coffee stand with Mr. Shipman. Have you asked those

1 people whether they asked the question of Mr. Shipman which
2 he said he responded to?

3 THE WITNESS: No, sir, I have not.

4 JUDGE MILHOLLIN: Do you believe one of them did?

5 THE WITNESS: From what Mr. Shipman tells me, yes,
6 sir, I believe one of them must have.

7 JUDGE MILHOLLIN: That is the conclusion I come to
8 from what I know. So, I guess it is -- I am prompted to ask
9 you why it is that these people were not asked whether they
10 asked Mr. Shipman the question one at a time.

11 THE WITNESS: It might have been a good idea in
12 our company investigation. I did not think of it. I was
13 not running the company investigation, but I did not think
14 of it. It probably would have been a good idea.

15 JUDGE MILHOLLIN: This is the investigation which
16 was conducted by Mr. Wilson you are referring to?

17 THE WITNESS: Yes.

18 JUDGE MILHOLLIN: If all of them denied it, there
19 would be an inference concerning one of them, wouldn't
20 there, in your opinion? One of them was not being honest.

21 THE WITNESS: Yes, sir.

22 BY MR. CLEWETT: (Resuming)

23 Q Referring to the NRC interviews, I would like to
24 ask you whether from your Navy experience it would be common
25 to interrogate a suspect in the presence of his superiors.

1 A On a ship, yes, frequently, if you got to such an
2 incident where you had the Naval Investigative Service
3 coming in because there was some very serious incident on
4 board. As I remember, normally we did not have a
5 representative. I am not positive. I do not think we did.

6 JUDGE MILHOLLIN: By representative, you mean a
7 superior officer?

8 THE WITNESS: Yes.

9 BY MR. CLEWETT: (Resuming)

10 Q But there were some circumstances in which that
11 was done?

12 A On the ship, if I had an incident, or I was
13 investigating something, very frequently I would have the
14 gentleman in question and the division officer and myself in
15 the same room when the questioning was going on.

16 Q Would that have -- would that -- would those
17 circumstances have obtained if the superiors were suspected
18 of being implicated with the suspect?

19 MR. BLAKE: Objection. Are we now exploring the
20 validity of examinations which may have gone on in the
21 Navy? Can't we stick to the case at hand and the facts at
22 hand here, of which there are many?

23 JUDGE MILHOLLIN: It seems to me, yes, that the
24 analogy is, while recognizable, that we do have its replica
25 or something near to it at issue here. I am sympathetic to

1 the proposition that it would be more fruitful to pursue the
2 one which we actually have. If you have something specific
3 rather than a hypothetical analogy, that might be better.

4 BY MR. CLEWETT: (Resuming)

5 Q Do you know offhand how many of the interviews
6 that the NRC conducted you attended?

7 A It is in my testimony. I will have to add them up
8 again.

9 JUDGE MILHOLLIN: Mr. Clewett, are you going to be
10 a long time, a fairly long time with this line of inquiry?
11 I ask you because of the break.

12 MR. CLEWETT: No, I do not believe so.

13 JUDGE MILHOLLIN: All right.

14 THE WITNESS: It looks like ten to me -- nine to
15 me, counting W. I am looking on Page 8 at the list of
16 people that I sat in with. The last paragraph.

17 BY MR. CLEWETT: (Resuming)

18 Q Did any of the interviewees who requested your
19 presence state any reasons why they wanted you to be present?

20 A No, not that I remember. When we brought -- when
21 we were told that the NRC wanted to see them, they were just
22 told that a senior member of management was there to be with
23 them when they went up if they so desired, and I notified
24 them that I was available if they wanted me.

25 Q And you did not have any conversations with any of

1 them as to why they agreed to that procedure?

2 A No, sir, not that I remember.

3 Q I believe it was your testimony yesterday that in
4 one instance an individual declined to have you present. Is
5 that correct?

6 A In one instance, they asked for Mr. Christman, and
7 I think I was available, and they said they would like Mr.
8 Christman to go up because they knew him. I am not -- the
9 facts are not all stuck in my mind, but Mr. Christman went
10 up with one of the other individuals on a case -- on a
11 separate case when they -- two of our people were called up
12 to see Mr. Wilson. They specifically asked for their shift
13 supervisor rather than myself to attend, and I do not even
14 remember their names or who they were.

15 Q Do you recall any particular reason given for that
16 presence?

17 A Yes. The shift supervisor talked to me and said
18 that they just felt they were very close to him, and they
19 thought that they would like him since they had worked with
20 him for years and knew him well and he was their superior,
21 their immediate superior.

22 Q On the top of Page 7, the first full sentence, you
23 refer to gaining firsthand knowledge of the scope of the
24 problem. By "problem," do you mean to refer to the extent
25 of cheating?

1 A I want to, if I can, read the previous page.

2 Q Please do.

3 (Pause.)

4 A Yes. I felt it was an opportunity for me to see
5 what the problem really was, since I had no idea of the
6 problem until that night, that it would give me a much
7 better feel, if it was widespread, if it was limited to two
8 people, or what the problem really was. After all, they
9 were our employees.

10 Q In stating that you would be able to gain
11 firsthand knowledge of the scope of the problem, would that
12 also refer to the NRC investigation as being part of the
13 problem?

14 A No, sir, it would not. I did not consider the NRC
15 investigation a problem at all. I figured it was an
16 absolute necessity.

17 Q Did Victor Stello or any other NRC employee
18 indicate a preference to you to not have management present
19 during interviews?

20 A On the first night, when I was asked by Mr. Arnold
21 to have Operators O and W appear in my office and then go up
22 to the NRC office, he had asked me to call and talk to the
23 investigators and get their concurrence with one of us being
24 present, Mr. Christman or myself, and as I remember, I
25 called Mr. Baci, and I think he was the one. It could have

1 been one of the others. And they said they would rather not
2 have us in the room at the time.

3 And I informed them that I would have to get back
4 to Mr. Arnold, and I would be back in touch with them, but
5 Mr. Stello, I did not talk to Mr. Stello at all that evening.

6 JUDGE MILHOLLIN: Did he explain the basis for not
7 wanting you present at that time when you talked to him?

8 THE WITNESS: No, sir, not that I remember. He
9 just said it was not their practice and that he would rather
10 not have a management personnel in with him. I do not think
11 he gave me the reason.

12 JUDGE MILHOLLIN: All right.

13 BY MR. CLEWETT: (Resuming)

14 Q Did you reach any provisional assumptions yourself
15 as to why it was that he would not have wanted you in there?

16 A Yes, I think so. I think that, myself, I thought
17 that he could probably work the guy over harder without
18 management there to watch them. That was my own personal
19 opinion. I frankly -- the main reason I wanted to go up was
20 to ensure our people were treated fair, as well as to gain
21 knowledge. You know, this came as a total shock. We did
22 not know O and W were involved. I wanted to make sure that
23 my people were treated fair, and I felt our presence would
24 ensure that.

25 Q At the risk of making it somewhat more difficult

1 to the NRC to gain whatever knowledge the individual might
2 have. Is that correct?

3 A No, I did not consider it at the risk of them
4 gaining information. I was not going to stand in the way at
5 all of their gaining information. If I thought they were
6 taking unfair advantage of one of our people, I probably
7 would have stood up and said something. I did not. Their
8 investigations were conducted in a very formal, very proper,
9 and very reasonable way.

10 Q After the first few interviews, when you realized
11 this to be the case, did you consider at that time not
12 accompanying employees?

13 A Yes, sir, I certainly did, because it was taking
14 an awful lot of my time, but I felt since I had done it for
15 the previous employees that it was not fair to the others
16 that were going up to drop out and not continue to offer my
17 services. It took my whole day. But I have -- the
18 operators I have got out there are good people, and I really
19 -- I feel a kinship to them, and I feel that if I had
20 offered this service initially, that I should continue to do
21 so, and I should be there as a management representative for
22 them.

23 Q In what way did you believe that your presence
24 would enhance the individual's cooperation, referring to the
25 very top of Page 7?

1 (Pause.)

2 A I guess I felt that them knowing there was
3 somebody from the company there would just make it clear for
4 them to answer it, that they would feel that the company was
5 involved in this thing, that their own management was
6 involved to help them, and it would give them the
7 opportunity to open up with somebody they knew there rather
8 than some cold stranger who they knew was an investigator.

9 Q Wouldn't it make them less likely to open up if
10 there were any way in which management was involved in any
11 of the problem?

12 A That did not enter my mind, because I was not
13 involved in the problem in any way, shape, or form, other
14 than as I -- my naivete, as I explained earlier, where I did
15 not get my point across to them, but I was not involved in
16 the cheating in any way, so I do not think so.

17 Q When you were in the Navy, did you find that there
18 tended to be a natural division or lack of communication
19 between the officers and the enlisted men?

20 A Not on my ship. It is a hard question to answer,
21 but on my ship I insisted that there was communication, and
22 of course it is easy when you are locked in a sewer pipe for
23 six months at a time.

24 JUDGE MILHOLLIN: Mr. Clewett, I noticed that you
25 have launched into a line of cross examination here which

1 may continue for a while. I am thinking again of the break.

2 MR. CLEWETT: I think actually this would be a
3 reasonable time to take a break. I am basically wrapped up
4 with this line. I have basically wrapped up with it.

5 JUDGE MILHOLLIN: Okay. We will take a break then
6 until 10:50.

7 (Whereupon, a brief recess was taken.)

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1 JUDGE MILHOLLIN: Back on the record.

2 The record should reflect that the parties have
3 just had a discussion with me concerning the problem of
4 maintaining the spirit of the sequestration order with
5 respect to members of the press or other media who may come
6 to the hearing or ask questions about the proceedings in
7 other places or with respect to public information officers
8 either or the licensee or of the NRC staff.

9 After a discussion off the record on this subject,
10 the parties have agreed with me that there will be a general
11 principle governing communications between the parties or
12 persons associated with the parties in this proceeding and
13 the media or public relations officers, public information
14 officers within the organizations I just mentioned.

15 The general principle is this: that the persons I
16 mentioned, the parties, persons associated with the parties
17 in the proceeding shall not voluntarily, or should I say
18 will not volunteer information of such specificity and of
19 such a nature that they anticipate that it will bias or
20 might bias the testimony of a prospective witness with the
21 intention of having that result, unless it is absolutely
22 essential that this information be communicated for purposes
23 of informing the public of the nature of the proceedings.

24 If there is any word or expression within that
25 formulation which any party feels should be conformed to the

1 understanding we have reached, I hope the parties will say
2 so.

3 (No response.)

4 Not hearing anything from the parties, I will
5 assume that there is general agreement on that principle. I
6 should say that this general agreement has been reached with
7 the understanding that if practical difficulties develop in
8 the implementation of this principle, I will be notified
9 with the understanding that the principle may be modified as
10 necessary.

11 MR. GOLDBERG: I would just like to state my
12 understanding of the purpose of what you just stated, and
13 that is, to prevent anyone from violating the spirit of the
14 sequestration order which is in effect in this proceeding.
15 And with that understanding, I think the staff agrees with
16 your statement and certainly will abide by it.

17 JUDGE MILHOLLIN: We are now ready to resume cross
18 examination.

19 MS. SWARTZ: Excuse me. I have one very quick
20 preliminary matter.

21 I informed Mr. Clewett earlier regarding the SRO
22 and RC exams, the copies of those exam questions that we
23 were ordered to give to them in response to their
24 supplemental discovery request. I had hoped to have them
25 here for Mr. Clewett today. Unfortunately, signals got

1 crossed in Washington. They will be coming and be available
2 to Mr. Clewett and the Aamodts first thing tomorrow
3 morning. In addition, we are making a copy of those exams
4 available in Washington for an associate of Mr. Clewett's,
5 and he is -- the associate is going to pick this up in
6 Washington at our Bethesda offices today. We have made
7 arrangements for those copies to be made and available for
8 Mr. Clewett's associate.

9 Without any doubt of the Aamodts' sincerity, or
10 Mr. Clewett's or Mr. Clewett's associates, we would ask that
11 you remind them that you had said that release of exams was
12 going to be under some kind of protective order; that the
13 contents of these exams would not be disclosed to anyone
14 else until after the exams were graded; that this
15 nondisclosure was really only for the benefit of this
16 proceeding as a whole; that the examination process, grading
17 of the exams not be compromised at all or at least the exams
18 not be had until the grading was complete; and that you ask
19 Mr. Clewett to remind his associate of that.

20 JUDGE MILHOLLIN: Yes. I assumed that Mr. Clewett
21 understood the conditions under which he received the
22 examinations or he was to receive them.

23 MR. CLEWETT: That is correct. And although the
24 actual communication with the individuals in Washington has
25 been through an intermediary, I believe that understanding

1 has been expressed, and I will when I inform them of the
2 fact that the examinations are available in Bethesda, will
3 make sure that that is understood so that there is no chance
4 of compromising the examinations.

5 JUDGE MILHOLLIN: While we are taking up
6 administrative matters, Mr. Blake, do you have any
7 announcements concerning the status of the appeal which
8 should be made on the record?

9 MR. BLAKE: The appeal on confidentiality?

10 JUDGE MILHOLLIN: Yes.

11 MR. BLAKE: None other than what I observed
12 earlier today which was that we would in fact be withdrawing
13 our appeal on confidentiality. We would be notifying the
14 Appeal Board of that this morning, and would be filing the
15 papers as soon as we could finalize them in Washington
16 today. And that as an attachment to our --

17 JUDGE MILHOLLIN: I'm sorry. Yes.

18 MR. BLAKE: We would include the stipulation.

19 JUDGE MILHOLLIN: All right. We did cover that on
20 the record. I'm sorry. Did the Staff file an appeal as
21 well?

22 MS. SWARTZ: No.

23 MR. ADLER: Sir, the one outstanding appeal was
24 Mr. McBride's. We have not received any communication. We
25 had his word that he would withdraw it. Perhaps Mr. Blake

1 knows if he did or not.

2 MR. FLAKE: I am informed that yesterday the
3 Appeal Board was notified by Mr. McBride or by another
4 member of the firm that they were withdrawing that appeal
5 with the sole exception of the issue in there regarding
6 counsel.

7 JUDGE MILHOLLIN: All right.

8 BY MR. CLEWETT: (Resuming)

9 Q Mr. Hukill, when you indicated to the people who
10 will be interviewed by the NRC that management presence was
11 available, did you indicate anything to these people to the
12 effect that people who were guilty would be disciplined in
13 any way?

14 A No, sir, I did not.

15 Q Would they have been -- strike that.

16 (Pause.)

17 Referring to page 10 of your prepared testimony,
18 you refer to a meeting convened by Mr. Arnold at which you
19 sat in but did not speak, which was followed over the course
20 of the next few weeks with a series of meetings on your part.

21 My question is whether the meetings which you held
22 were part of any larger overall plan of action which you had
23 developed to respond to the problem?

24 A I do not think they were perceived at that time to
25 be. I perceived at that time that it was vital that my

1 people understood how I felt on the subject of cheating, and
2 where we stood on the subject of cheating. It was a very,
3 very emotional issue, and I felt it essential that I take an
4 immediate action and make my long-term plans later; but to
5 get immediate action so that my people knew exactly where I
6 came from on it, knew where management stood on the issue
7 and were brought up to date on the issue in an attempt to
8 let them know the facts as we knew them at that time, and to
9 make it absolutely clear to them my position and the
10 position of management on cheating.

11 As it turns out, it is a part of the overall plan,
12 but I do not think I perceived it at that time as anything
13 but an immediate action that had to be taken.

14 Q What other aspects of the overall plan developed
15 as time went on?

16 A I think this is explained in detail in my
17 testimony. I will try and put it in my own words.
18 Additionally, to properly implement the thing, I think one
19 -- or to implement a policy, the first people you have got
20 to get this policy to and make understand it is your
21 managers. So at the bi-weekly managers meeting that I hold
22 -- and they are not always bi-weekly, but they are basically
23 bi-weekly, every other week, and they include managers from
24 all the other divisions that support me on site, not just
25 the people in my own division.

1 I felt it vital that they understand and support
2 and get to their people where the company and where I come
3 from on these basic issues -- the basic issues being
4 cheating, honesty, trustworthiness, professionalism, this
5 sort of thing. So I use the managers meeting as a kickoff
6 to start this down through the chain and to make sure it got
7 to the people through their own individual superiors.

8 I also at this time felt it imperative that even
9 though I had talked to these operators this summer in very
10 small groups and gotten to know them fairly well, that I
11 meet with them individually, not just ask them if they
12 cheated or not; and much of the time that was spent in these
13 interviews with these people we were talking to them in
14 general. I am used to doing that. That is my management
15 style. I feel that wherever I am in the management chain
16 that I have got to know the people working for me or I
17 cannot do my job. And I feel very strongly that I cannot
18 depend on one source of information; for example, I cannot
19 depend on Mr. Toole or Mr. Ross being my only source of
20 information on what is going on in the plant. I have to
21 talk to the people.

22 So I made it as a part of my plan was to meet with
23 these people individually, spend half of this time going
24 through the things that I thought were absolutely necessary
25 in the letter: the absolute necessity that they understand

1 their full responsibilities; licensed people, that they
2 understand my feeling on their need for professionalism, for
3 honesty, for integrity; that they understand that we would
4 have 99 percent of the rules the NRC puts on us, whether or
5 not there was an NRC, because it is a smart way to run the
6 business.

7 But I also felt -- and I spent about half of this
8 time just talking with these people, just trying to get to
9 know them, just trying to find out how they think -- and
10 part of my plan is to get to know each one of them
11 individually so I can better see this sort of thing when it
12 is coming up again, or if it ever pops its head and be able
13 to nip it in the bud and be able to get a hold of it. And
14 that is the way I have always managed.

15 I also plan and have already a draft procedure on
16 certification of operators, and how we will certify them,
17 and how I will personally be involved in that process, and
18 what I will do in that process. I will probably meet with
19 the operators -- you know, I will not make it exact, but
20 every half year or so individually, plus I now have most of
21 them at the point where they are not afraid to walk into the
22 door and talk to me. And I do know most of them by name now
23 and am trying to establish that closeness with them,
24 although I have a chain of responsibility that has got to be
25 followed. You cannot just bypass that trying to establish

1 that informality, if you want, that ability that they feel
2 they can come to me and let me know what is going on and
3 what is happening in the plant; and I think I am being
4 fairly successful.

5 JUDGE MILHOLLIN: Mr. Hukill, I would like to
6 interrupt just a second. Would you refresh my memory as to
7 when you came to the company?

8 THE WITNESS: Yes, sir. I came in June of 1980.
9 I did not take over the job until September 8, I think it
10 was, or September 10, 1980.

11 JUDGE MILHOLLIN: It was in September of 1980 that
12 you took over line responsibility.

13 THE WITNESS: Yes, sir.

14 JUDGE MILHOLLIN: Thank you.

15 BY MR. CLEWETT: (Resuming)

16 Q Referring to the meetings that you held, were you
17 directed by Mr. Arnold or anyone else to have these, or was
18 this a decision of your own to hold these?

19 A I really do not remember the answer to that. I
20 know we discussed it, and I know that I told Mr. Arnold that
21 I was going to get together with all the operators. Whether
22 he mentioned it first or I mentioned it first I do not know
23 the answer.

24 (Pause.)

25 Q On page 11 of your testimony in the list of

1 numbered items, number 1 refers to the fact that you
2 reviewed with the operators the facts related to cheating as
3 you understood them at the time. What was your
4 understanding at that time, and has it changed since then?

5 MR. BLAKE: Objection. I wonder if we could have
6 a much more specific question than what was your
7 understanding of all of the acts in what would cover a span
8 of time. If you want to get to did he understand a specific
9 fact, I think that would be a more appropriate way to
10 proceed; but that is a very broad question.

11 MR. CLEWETT: Well, let me --

12 JUDGE MILHOLLIN: Would you make your question
13 more specific, Mr. Clewett?

14 MR. CLEWETT: Yes.

15 BY MR. CLEWETT: (Resuming)

16 Q Did you -- well, perhaps I cannot make it more
17 specific. Let me just move on.

18 (Pause.)

19 Under number 2 of that list you again refer to
20 intentionally falsifying records. I believe it is your
21 testimony that you do not recall any specific instances of
22 operators intentionally falsifying records, and I am
23 wondering whether there is any particular reason that you
24 were concerned about that particular behavior?

25 A My concern for that behavior is just because of my

1 training for the past 20, 25 years, the absolute need for
2 accurate records and the absolute wrongness of falsifying a
3 record or falsifying a log reading or anything else because
4 it can somewhat affect the operation of the plant.

5 It has nothing to do with me ever hearing since I
6 have been here of any'ody falsifying records. But certainly
7 since day one in my training in the nuclear program it was
8 one thing that just would not be tolerated, and I consider
9 it the same as cheating. I wanted to make sure they knew
10 that.

11 Q Under item number 4 on that list you refer to the
12 complex problem of the degree to which O and W felt "driven"
13 to cheat, and I am wondering whether you have come to any
14 conclusion in your own mind as to the degree to which O and
15 W felt driven to cheat?

16 A No, I have not come to any conclusion. I have
17 lost a lot of of sleep about it. I do not know how much
18 they were driven to cheat. I just do not know. There is
19 obviously a very strong feeling from the top to the bottom
20 up there to get that plant on the line, and it is obviously
21 -- it is very obvious that getting the operator's license is
22 a key element of that. And I just cannot in my own mind --
23 and I will admit to my own operators that how much was I
24 responsible. Did I push this to the point where these
25 people felt they had to cheat to do it?

1 I would like to say to myself that I am totally
2 innocent, that I did not at all contribute to this; but I
3 somehow cannot do that.

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1 Q So it is at least possible then that they felt to
2 some degree driven to cheat because of the perceived
3 critical importance of passing the licensing exams, of one
4 step toward getting the plant back on line.

5 A Yes, I -- I think that that could have been an
6 indication. I am just afraid that they, you know, they are
7 very busy, they are hardworking people, and to prepare for
8 one of these exams, it is just mind-boggling. I did not
9 realize until I sat in with the NRC investigators the hours
10 my people were spending at home. I had people who sent
11 their families away. I mean, this is not the Navy, this is
12 civilians that sent their families away, and without pay
13 spent nights -- nights studying to get ready for these
14 examinations, and -- and to just how much we drove this, I
15 just do not know the answer. I wish I did.

16 Q Would the same pressures be in effect at
17 subsequent NRC examinations such as the one that was
18 recently administered in October?

19 A Yes, although I think to a lesser degree. From my
20 talks with people, they had spent an awful lot of time
21 studying for the first one, and very honestly, a couple of
22 people told me they just could not go through it again. The
23 man who sent his family away said, I will lose my family. I
24 am not doing it. He said, I will study every minute of time
25 I can while I am here, and I feel sympathy for him.

1 One thing we did do in this area is that we
2 permitted and allowed and encouraged people to come in on
3 their own time, and we would provide -- space, and we would
4 pay them to study instead of having to do it all on their
5 own at home, and the pressure is there any time you take an
6 exam of this nature. The pressure is there, and I am sure
7 they are glad to have it over with, but I do not think it
8 was as severe this time. It just did not seem to be.

9 I guess, re-emphasizing a point that when I say,
10 feel driven, I did not understand how deeply my operators
11 felt about this plant, and just how dedicated they are to
12 getting this plant back on the line and passing that exam
13 until I sat in and listened to some of them talk.

14 JUDGE MILHOLLIN: Mr. Clewett, I have a couple of
15 questions on this point, but I will wait until you finish
16 yours. If you are going to move on, I will ask them now.

17 MR. CLEWETT: I was going to ask a question about
18 the next clause in that same sentence which may be
19 slightly --

20 JUDGE MILHOLLIN: Go ahead.

21 MR. CLEWETT: -- off the point.

22 BY MR. CLEWETT: (Resuming)

23 Q You -- you indicated, Mr. Hukill, in the next
24 clause of that sentence that you felt responsible for not
25 ensuring that individuals felt ready substantively and

1 emotionally to take the exams. How many individuals are you
2 referring to? Are you referring just to O and W, or are you
3 referring to all of the operators, or some group in between?

4 A I feel this way for all the operators, not just O
5 and W. Obviously, in this case it is specifically O and W,
6 because they were the ones involved, but I feel this in all
7 cases, that it is, you know, my responsibility. I am not
8 the training department, but it is my responsibility as the
9 vice president for that unit to make sure that these people
10 feel they have been trained properly and they are
11 emotionally ready to take that exam.

12 Q Well, I am not sure that I understand your
13 testimony completely. The sentence refers to the fact that
14 you felt responsible for not ensuring that individuals felt
15 ready substantively and emotionally to take the exams.

16 A Yes, I had not done that for this exam. I had not
17 talked to them individually, to see their individual
18 feelings before this exam.

19 Q I see, so that you are saying that you could not
20 be -- you could not guarantee as to any given individual
21 that they felt ready substantively and emotionally to take
22 the exam.

23 A Well, I certainly had reports from my top people,
24 Mike Ross and Mr. Toole, but I did not personally talk to
25 these people, and personally have the feeling that they were

1 up and ready for these examinations, and that is, I feel --
2 I should do that.

3 Q When you use the word "substantively" I assume you
4 mean in terms of the actual subject matter of the test.

5 A Yes.

6 Q I see.

7 JUDGE MILHOLLIN: You had been at the company only
8 seven months at the time the exam was given. Is that
9 right? I just made that quick calculation, September to
10 April. I could be wrong.

11 THE WITNESS: I had been with the company since
12 June, Your Honor. I did not take over -- I spent two months
13 out in the plant running the plant.

14 JUDGE MILHOLLIN: I meant, so you did not have
15 your present responsibility.

16 THE WITNESS: That is right. I took it over in
17 September. If that is seven months, yes, sir.

18 JUDGE MILHOLLIN: That causes me to ask you to
19 elaborate on the statement which Mr. Clewett just asked you
20 about. You said you felt responsible for not ensuring that
21 the individuals felt ready. Is there something that you
22 felt that you did in that period of time which affected
23 that, or that you feel that you should have simply made
24 changes faster?

25 I ask you because it -- it appears to me that most

1 of the things which would have influenced their readiness to
2 take the exam, their attitude toward it, would have already
3 existed when you came into your position, and so I am just a
4 little curious about why you felt so personally responsible
5 for that, since you had been there such a short time. Is
6 there something you did specifically, or is it just a
7 condition you observed?

8 THE WITNESS: It is something I did not do, Your
9 Honor. I again feel that one of my most important jobs and
10 the most important things that we can do as senior
11 management is the people we have working for us. We just
12 cannot do anything without those people. They are the key
13 to where we go. That is in the Navy or anywhere, as far as
14 I am concerned, and instead of my taking the time in my
15 first few months there to sit down and talk to these people
16 and ensure that we were ready for this examination, I took
17 the word of others, which I have to do in my job at times,
18 but I let the press of daily work and long hours come first
19 instead of taking the time to get with these people and find
20 out what they were thinking, and in my own mind be satisfied
21 that they were ready to go for those examinations.

22 Certainly the training should have been well on
23 its way and well done, but the mental and emotional
24 attitude, did they feel they were ready for these exams, I
25 just did not take the time to personally sit down and go

1 over that with them, and for that -- I think I should have
2 done that.

3 JUDGE MILHOLLIN: Do you feel that they were ready
4 based on what you know?

5 THE WITNESS: Based on what I know, yes, sir. The
6 exam results were very good. People thought the exam was
7 extremely hard. I had never seen a group come out of an
8 examination with words describing the ones they did in
9 April, yet the results were very good, and if I could
10 believe those who honestly told me they did not cheat, then
11 our results were very, very good, better than I have heard
12 throughout the industry lately.

13 So, I think that at least from the technical point
14 of view the majority of them were ready.

15 JUDGE MILHOLLIN: So your testimony is that you
16 felt responsible for not ensuring that they were ready, but
17 you feel they were nevertheless ready.

18 THE WITNESS: Yes, sir, I feel that they were
19 ready.

20 JUDGE MILHOLLIN: All right. Thank you.

21 BY MR. CLEWETT: (Resuming)

22 Q I assume that you remain committed to having a
23 six-shift rotation at the plant. Is that correct?

24 A We are committed to a six-shift rotation although,
25 as I have indicated here, probably for start-up we will have

1 to go to five shifts until we get enough replacement people
2 in.

3 Q To what extent is safe operation of the plant
4 likely to be jeopardized by a five-shift rotation?

5 A I do not think a five-shift rotation will affect
6 the safety of the plant at all. In fact, if you really look
7 at it deeply, it might improve the safety of the plant,
8 because in a six-shift rotation you can -- the operator can
9 be away from the plant for quite a period of time before he
10 comes back, and that sometimes is a problem when he has been
11 away from the plant for a long time and then he comes back
12 on. You have got to make sure he knows the exact status of
13 that plant, and in a five-shift rotation there will be less
14 time interval between the time he is gone from the plant.

15 The one thing the five-shift rotation does is that
16 here will be occasions -- we intend to eliminate the relief
17 shift, but there will be occasions where we will need a
18 relief, and he will have to come out of training. We think
19 that our training program is certainly capable of handling
20 that, and certainly capable of making up for it, but in the
21 long term, instead of having -- well, it is 300 hours or so
22 I guess a year available for training. We'll be down
23 somewhat from that. We will still be way over the NRC's
24 standards and requirements. We will keep the training shift
25 on, and it just gives you less flexibility with five instead

1 of six.

2 The main reason for the six shifts is, it gives
3 your operators basically four daylight shifts, which is
4 nice. They only have two out of six weeks where they are on
5 the back shifts.

6 Q Does operator fatigue play a part in the decision
7 on your part to prefer a six-shift rotation?

8 MR. BLAKE: Objection. Are we going to get into
9 areas -- in my view we may be getting on -- far beyond what
10 was envisioned in the issues in this case, with regard to
11 the adequacy of staffing, what numbers of people, when we
12 start infringing on fatigue, or maybe we are headed towards
13 stress or other elusive characters. I guess I note my
14 objection at this point with this question, and I guess I at
15 a minimum, Judge Millhollin, I would like an explanation of
16 where we are headed here, and whether or not it is going to
17 be within the issues in this case.

18 JUDGE MILHOLLIN: I think given the fact that
19 there has been extensive litigation of the question of
20 staffing, with respect to aspects of it which are not
21 touched by cheating, I think it is fair to ask where we are
22 going.

23 MR. CLEWETT: I am trying to address the question
24 of whether a five-shift rotation would be preferable to a
25 six-shift rotation, which would bear on the question of

1 adequacy of staffing. It is not my intention to attempt to
2 litigate every conceivable issue that would bear on this,
3 but I was interested in determining what the views of the
4 witness were in terms of the pros and cons of five-shift
5 rotation versus a six-shift rotation.

6 MR. BLAKE: Judge Milhollin, that is precisely one
7 of the issues which we litigated and relitigated throughout
8 the earlier phases, and we now have a determination with
9 respect to the adequacy of numbers of shifts, including a
10 commitment which Mr. Hukill's testimony indicates we are
11 reiterating and committing to here, and that was acceptable
12 to the -- and is found so to the extent we are into
13 staffing, where we would be talking about -- I think I could
14 conceive if we were in a staffing situation where we were
15 talking about not being able to live up to commitments which
16 were found to be acceptable, including both six-shift and
17 the five-shift. Then I can understand here where we might
18 have to get into the adequacy of staffing from a how many
19 shift standpoint, but that is not our position, and to now
20 talk about five shifts versus six shifts or which one is
21 better or which one is worse is precisely what we talked
22 about and have gone over and over before.

23 JUDGE MILHOLLIN: That is also my recollection of
24 the previous litigation.

25 MR. CLEWETT: I will withdraw the question.

1 (Pause.)

2 BY MR. CLEWETT: (Resuming)

3 Q You refer at the bottom of Page 11, Mr. Hukill, to
4 the degree of the morale problem with the operators and the
5 need to change their attitude with respect to the importance
6 of the examination process. Is it your position that this
7 change has occurred with respect to the attitude of
8 operators toward the examination process?

9 A Yes, sir, I think the attitude toward the
10 examination process has changed extensively since my talks
11 with the people, and they understood that we considered the
12 exam process as extremely important, yet only one of those
13 processes that are required before we are going to certify
14 him to be on shift as a licensed operator, and that in fact
15 the NRC is going beyond the exam process, and that they are
16 now requiring the simulator exercise as part of the total
17 licensing process, and I, from talking to them individually,
18 I think I have noticed considerable change, and I think the
19 majority of them do understand it, although there are a few
20 that still have a problem with some of the questions they
21 see on the exam which they find very hard to relate to their
22 daily duties.

23 Q Do you feel the operators' attitude is also good
24 toward the training program?

25 A No, we have a considerable amount of effort to do

1 in that area, although I personally feel that I have seen
2 changes in the training program since I have been there. It
3 is a long term process. Building these qualification
4 programs is a long term process. I still feel that some of
5 the operators do not believe that the training program gave
6 them the support they needed for the exam.

7 Q Could you briefly tell us what aspects of the
8 training program need to be improved?

9 A Well, there are a number of aspects that need to
10 be improved. I would say primarily we need to improve
11 teaching the operators about changes to the plants,
12 formalizing that process. We need to ensure that for the
13 training weeks that we have laid out an exact plan for these
14 operators to follow, and that they do have scheduled
15 training that is conducted, and that they do attend, and we
16 do not make constant changes.

17 More importantly than anything, we need a set or a
18 training manual that is built and decided upon by management
19 that this is what we need to train on, and we need to stop
20 the continual changes to the training material we provide.
21 We should make a manual that is up to date in training at
22 the time and then keep it up to date, and make sure our
23 other divisions, specifically the technical people, give us
24 the input to keep it up to date, and the operators have one
25 document that they train from, and they do not have a closet

1 full that they get different ones every time.

2 I know the feeling of a number of the operators is
3 that we put out too much material, and that the volume of
4 the material is just too hard to comprehend.

5 Q You mentioned the importance of not having -- of
6 not constantly changing the material. What -- what is the
7 cause of that situation? Why has that situation been in
8 effect? I gather it is still in effect.

9 MR. BLAKE: Objection. I understood the line of
10 questions that Mr. Clewett was going along exploring the
11 attitudes of the operators with regard to training, and I
12 can see how the attitudes of the operators may in fact be
13 involved in this proceeding, but once we step beyond that
14 and start getting into questions about the substantive worth
15 of training, I believe again we are getting back into areas
16 which we have gone through in this proceeding and which I
17 understand to have been both the guidance of the licensing
18 board in describing the issues in this proceeding and Judge
19 Milhollin's concurrence with that, that we would not be
20 going back through the adequacy of past training given to
21 the operators.

22 It may be a tough line to draw between what their
23 attitudes are about it, to the extent that could play a role
24 in the cheating issues, and I think that is appropriate, but
25 once we start getting into questions about the substantive

1 training program which I understand now to have stepped over
2 the line, I have to object.

3 JUDGE MILHOLLIN: I think that this is different
4 from the previous question concerning matters which have
5 already been litigated. The existence of the cheating
6 incident and the revelations of operators' attitudes toward
7 examinations and training is new material which did not
8 exist at the time of the previous litigation. So, I think
9 it is fair to expect that the licensing board will want to
10 know what this new information tells us about the training
11 program.

12 So, I would view it as relevant to explore the
13 significance of the new information on the training
14 program. I would not view it as relevant to explore old
15 information about the training program and the training
16 program. I think this question is directed to the former
17 rather than the latter, so I will permit the question.

18 BY MR. CLEWETT: (Resuming)q

19 Q Do you remember the question?

20 A No.

21 Q I had asked you why you thought it was that there
22 had been this constant changing of materials that you
23 described which you hope will be resolved by the formalizing
24 of a training manual, why that -- why that problem had
25 arisen in your view.

1 A I guess I think there are a number of reasons.
2 Number One is the lesson learned from the TMI 2 accident
3 started to come out. They came out in all different various
4 forms, ways, means, and methods. And every time one came
5 out we tried to adopt it and train to it. And even today
6 they are changing. Some of the modifications are even not
7 firm yet.

8 And we tried to keep up to the minute as every
9 single piece of information came out, because we felt it
10 important that our operators know it so the training people
11 would go print up a training handout and hand it out, and
12 then when -- the next time we went through that we would
13 have revised information, and when we would put that out, I
14 think it was growing pains in a relatively new department
15 which I understand before I came was way down in number of
16 people, and has now grown to be an extensive sized
17 department.

18 In learning to put this together, we also are just
19 completing the modifications, so it is a problem in getting
20 the modifications and getting the training to the people in
21 time before the modifications go in, so we have to keep
22 changing them -- the training with all the modifications
23 that are going in. I think those are the reasons.

24 Q I believe you indicated that the lessons learned
25 are still coming out, and so I am wondering whether it might

1 be somewhat premature to attempt to formalize a training
2 manual if there is still this problem of conflicting
3 information coming out with each new -- each new lesson
4 learned.

5 A I am not sure whether it is any more called
6 lessons learned. It is new information. I mean, every
7 evening in the basket is that much new information from the
8 NRC on various subjects and various things, all of it which
9 our operators need to know (indicating).

10 We have also now started since the TMI 2 accident
11 the industry experience information system that we pass on,
12 and all our operators need to know that, but I think we can
13 build the training manual and just make sure we keep it up
14 to date. I do not think we should put out a new piece of
15 paper every time something new comes. It becomes beyond the
16 operator's ability to assimilate all this information, and
17 our goal is to put out a training manual that is approved by
18 the operations department, my group as well as the training
19 people that lays down, this is what you have to know, and
20 then we have to keep that up to date, and that is our
21 attempt in where we are going.

22 JUDGE MILHOLLIN: This brings a question to my
23 mind which I suppose I should ask right now. Would you say
24 that most of the effort which the operators have undergone
25 recently results in their having to absorb a lot of written

1 and rather abstractly formulated information which they are
2 not used to absorbing?

3 THE WITNESS: No, sir. I would not think so. If
4 I understand written abstract --

5 JUDGE MILHOLLIN: Let me explain what I am getting
6 at, and perhaps my assumption about this is wrong, and since
7 I am making an assumption which may be incorrect, I am
8 bringing it up, so I hope you will correct me if it is
9 incorrect. It seems to me that from what you have said, as
10 you say, the basket is always full of new information which
11 the operators have to absorb, and it is information which is
12 about problems which they do not run into in their every day
13 work. That is, it is about problems which could arise if
14 this or that condition occurred in the reactor, most of
15 which I presume we hope they will never see.

16 Do you think the kind of people which -- who you
17 normally would recruit to be operators, with their
18 background and educational attainments and so forth, are the
19 kind of people who can absorb this vast amount of
20 information in the time required?

21 Let me go further. I assume that an operator is
22 not the same -- he is not expected to have the same skills
23 as a graduate engineer with respect to absorbing abstract
24 information, information that is not directly connected to
25 his every day duties, which involve a good deal of skill

1 and, I think, as you said before, feel for the plant. I am
2 wondering whether the particular requirements for your
3 operators may have shifted because of the vast amount of
4 information which has been generated after the accident.
5 Let me just ask you that question. Do you think it has?
6 That is, do you think these people are being asked to do
7 things they really are not very well qualified to do?

8 THE WITNESS: No, sir, I do not think so. I think
9 it is up to us to put it into context and take it from the
10 technical sources and put it into the training context that
11 fits their background and their education, and I do not
12 think that we are now providing them or requiring them to
13 know information that they are not capable of knowing. I
14 think the volume has increased, certainly. Certainly, since
15 the accident, the amount of knowledge on heat transfer and
16 this sort of thing has gone up.

17 Getting back to your original question on abstract
18 information, and I assume you mean things of a theoretical
19 nature, is --

20 JUDGE MILHOLLIN: Yes, as opposed to an every day
21 routine nature.

22 THE WITNESS: That -- that is fairly constant,
23 although it changes somewhat as you read in the newspaper,
24 the brittle fracture problems and things of that nature. As
25 we gain knowledge in those, we must pass that knowledge on

1 to the operator, but he really is not worried about that on
2 a day to day basis. We pass it on to him as information,
3 and to the minimum extent we think he needs to know it as an
4 operator.

5 Certainly, when you get up into the technical
6 areas of the company, it has gone up significantly. Now,
7 one of the purposes of providing -- and I assume you are
8 aware of the STAs that we have, shift testing for advisors.

9 JUDGE MILHOLLIN: Yes.

10 THE WITNESS: Is this very reason, is typified on
11 a shift on-site, immediately available, technical people
12 with technical backgrounds to provide that kind of
13 information in case our operators do not know it and are not
14 capable of absorbing it, and we have those kind of qualified
15 people right there and on-site, ready to provide that kind
16 of information.

17 JUDGE MILHOLLIN: Mr. Clewett, did I sense you had
18 reached the end of this line of questioning and were about
19 to move to another or not?

20 MR. CLEWETT: Yes.

21 JUDGE MILHOLLIN: Perhaps I should say, are you
22 planning to move to another line of questioning?

23 MR. CLEWETT: I think both of those assumptions
24 are accurate, Judge Milhollin.

25 JUDGE MILHOLLIN: Well, then, if both of those

1 assumptions are accurate, it might be time to break for
2 lunch.

3 MR. BLAKE: Might I inquire before we do how much
4 -- how much more time? I am thinking about Mr. Ross.

5 JUDGE MILHOLLIN: Of course.

6 MR. CLEWETT: Past experience has shown me not
7 very accurate in judging these matters, but I would estimate
8 on the order of another half-hour.

9 MR. ADLER: I would estimate between a half-hour
10 and an hour.

11 MS. SWARTZ: Staff will have no more than 15 or 20
12 minutes.

13 MR. BLAKE: Thank you.

14 JUDGE MILHOLLIN: Very well. We will break for
15 lunch and reconvene at 1:30.

16 MR. ADLER: Excuse me. Just one more thing. Does
17 Mr. Blake have any idea of whether he wants to insert Mr.
18 Trunk out of order yet?

19 MR. BLAKE: Well, that is probably dependent upon
20 when Mr. Hukill is done, and I would like an estimate from
21 the parties which I plan to get over the lunch hour about
22 Mr. Ross and what each party at least estimates. I do not
23 want to stop Mr. Trunk on Saturday if we cannot finish him
24 on Saturday, because he is not available next Tuesday and
25 Wednesday, and that does not make any sense. But I had

1 really intended to go Mr. Hukill, Mr. Ross, I quite frankly
2 thought we would have Mr. Ross on by noon today, and that we
3 would be able to for sure get Mr. Trunk out of the way, so I
4 would ask, I guess, each of you for your best estimates on
5 what the time is that would be involved with each of those
6 witnesses, make the decision based on those. I know of no
7 other way to do it.

8 MR. ADLER: I have a suggestion which would be
9 more convenient for me, and perhaps for the other parties,
10 and that would be simply to say that Mr. Trunk should be
11 scheduled on Thursday morning, either as a time certain or
12 as soon as possible Thursday morning. That would solve his
13 problems, and it would solve our uncertainty in terms of
14 preparation.

15 (Pause.)

16 MR. BLAKE: I guess I would like to get estimates
17 from the parties and see whether or not we can get Mr. Trunk
18 out of the way. I think if we put him off until Thursday,
19 we are assuring ourselves that we are going to be here with
20 licensee's case at least through Thursday, which I would
21 like not to sign up for yet. That may be a realization, but
22 I am trying to hang onto your optimism cloud here.

23 JUDGE MILHOLLIN: We can solve that perhaps after
24 lunch.

25 MR. BLAKE: All right.

1 JUDGE MILHOLLIN: Very well, we will now adjourn
2 until 1:30.

3 (Whereupon, at 12:22 o'clock p.m., the hearing was
4 recessed, to reconvene at 1:30 o'clock p.m. of the same day.)

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1 I have indicated to the parties today, and each
2 one has acquiesced, and I appreciate that, that I have
3 extended the license that is given me in the stipulation not
4 to go back into that, but rather to go back into the pages
5 where any other type of information, for example, was
6 deleted, and so that is really the makeup of this package.

7 Let me give an example of the type of thing. We
8 have double checked all of them, all of the discovery
9 materials that have been provided where letters were
10 substituted to ensure that the letters were correct, and
11 there are some pages in here which reflect corrected letters
12 for individuals, so to that extent we have picked that one
13 up.

14 We also had deleted information. Another, I
15 think, principal component of this package is that we
16 deleted information on the shifts, the shift makeup of
17 individuals, again in furtherance of maintaining their
18 confidentiality. That is included in this package.

19 So, I think there is agreement, and I will confirm
20 our having supplied this to the parties in a letter tomorrow.

21 The second thing --

22 JUDGE MILHOLLIN: You say you have just given me
23 this package?

24 MR. BLAKE: I did. I left it on your table. It
25 is a package maybe a quarter of an inch thick which has as

1 its top page a letter, a copy of a letter dated August 3,
2 1979.

3 JUDGE MILHOLLIN: I have it.

4 MR. BLAKE: A second item which we provided to the
5 parties is an updated key for lettered individuals, again,
6 in compliance with our stipulation. The key that we had
7 previously provided had only the names and the letters, so
8 that we could get going and people would know who -- each of
9 the parties would know who they were talking about. We had
10 committed to provide not only the names but the job
11 classifications and this most recent key that we have now
12 exchanged with the parties as that.

13 The third item which I have delivered is in
14 response to a recent discovery request made by Mrs. Aamodt
15 yesterday. She identified the dates for a random sampling
16 of RWT tests that she wanted. She had earlier made the
17 request, but yesterday identified the dates that she was
18 interested in.

19 She had asked for three exams from three days
20 after April 28th, 1979, and three days prior to April 28th,
21 1979, and on each of those dates had specified whether or
22 not it was the day test or the swing shift test or the back
23 shift test. We were unable to identify which time period
24 the tests were given, and without going all the way back
25 through payroll records to try to find out who might have

1 been in training during particular hours or the instructor.

2 So, we have given all of the tests that were given
3 on each of those six days, and have distributed those to all
4 of the parties.

5 JUDGE MILHOLLIN: That is the thick package that
6 you gave me?

7 MR. BLAKE: Yes, sir, and in the process of going
8 back through the exams --

9 JUDGE MILHOLLIN: It says Catalytic, Incorporated,
10 on the front?

11 MR. BLAKE: That is correct. Again, I will get
12 out a cover letter tomorrow which confirms what it is we
13 have provided.

14 JUDGE MILHOLLIN: All right.

15 MR. BLAKE: In the process of going back through
16 the thousands of exams to do this, we also found a couple on
17 April 28th, I think six, some six or maybe more which were
18 given on April 28, which was the subject of a prior request
19 by the Aamodts, and which we had not identified at that
20 point, and therefore are in this package.

21 Finally, with respect to the sequestration order
22 and its distribution, the parties have all agreed to the
23 form of the memorandum that I had drafted to send to the
24 individual addressees, the list of prospective witnesses.
25 Mr. Clewett has made some grammatical changes in the first

1 sentence to it which are not material to the other parties,
2 I do not think, and I have provided that to you for your
3 review and approval before I undertake to send it out.

4 One final matter, Judge Milhollin, and again, on
5 the sequestration topic, as it relates to our discussion
6 this morning, and your views on the press. We have already
7 had a problem arise or a potential problem, and that is with
8 regard to whether or not our witnesses could talk with the
9 press, either at breaks during their testimony or after the
10 conclusion of their testimony for the purpose of clarifying
11 their testimony.

12 It only points out to me -- and let me first
13 express what the problems that I can see with that are. I
14 would like to be able to encourage our witnesses to feel
15 free to speak with the press and to clarify particularly
16 their testimony, but under these circumstances, I think it
17 just spells -- there is a whole of a risk in particular in a
18 witness talking with the press right after his testimony,
19 and where the purpose may well be for clarifying it, I think
20 you might well get into specifics of the testimony.

21 The second potential problem that I see with it is
22 that the witness will have in his mind the sequestration
23 order, and a desire not to infringe upon it, and therefore
24 he may not be forthcoming, or not provide a clarification
25 which was otherwise sensible.

1 It is an awkward situation, I guess, Judge
2 Milhollin, even at this date, and not having given it maybe
3 sufficient chance yet, this problem already having arisen.
4 I go back to reiterate, and I think I would ask you to
5 reconsider your instructions this morning that we place no
6 restrictions on contacts with the press in this proceeding,
7 but that counsel and representatives here who sponsor
8 witnesses include in their instructions to the witnesses not
9 to take into account what they have said in the press in
10 providing testimony in this proceeding.

11 I see the practical problems. I have not
12 researched yet, but would undertake to do so, and volunteer
13 to do so, to see whether or not we are infringing on the
14 rights of the press by holding a public hearing but putting
15 restrictions of one sort or another on contacts with the
16 press that naturally stem from it. I would ask you, I
17 think, to reconsider whether or not -- I am not asking for a
18 ruling or a determination at this point. We continue to
19 abide by your ruling this morning, but I would have you give
20 more thought to it, and at least reconsider whether or not
21 we should not put any restrictions on the press, as I say,
22 coupled with our own instructions as counsel and as
23 representatives here when we sponsor witnesses whether or
24 not to take that into account.

25

1 MR. GOLDBERG: The Staff supports that request.

2 (Pause.)

3 JUDGE MILHOLLIN: I approve of the memorandum that
4 you have submitted concerning the communication of the
5 sequestration order. This is the letter of transmittal
6 which the parties have agreed upon.

7 MR. BLAKE: Yes, sir. Not all the parties had
8 seen Mr. Clewett's, which is a comment I had on the language
9 change in the middle. But I represent to them without
10 reservation that it is not material.

11 JUDGE MILHOLLIN: All right. I will take your
12 remarks under consideration. It is a difficult question. I
13 think we all realize that it is, that we have important
14 policies which are in conflict, and it is not easy to find a
15 point at which one should say that one policy stops and the
16 other policy begins.

17 Are there other preliminary matters before we
18 proceed?

19 (No response.)

20 Mr. Clewett, you may resume your cross examination.

21 MR. CLEWETT: Thank you, Judge Milhollin.

22 Whereupon,

23 HENRY D. HUKILL

24 resumed the stand and was further examined and testified as
25 follows:

1 CROSS EXAMINATION - Resumed

2 BY MR. CLEWETT:

3 Q Mr. Hukill, directing your attention to page 12 of
4 your prepared testimony, in the last sentence of the long
5 paragraph on that page you refer to not tolerating
6 misconduct in participation in the training and testing
7 program which the training and education department has
8 developed.

9 I wonder if you could briefly describe for us what
10 in your judgment would constitute misconduct in terms of the
11 degree of absence from training and examinations?

12 Have I stated that question clearly enough for you?

13 A I do not think I understand it, no.

14 Q In terms of what would constitute misconduct in
15 participation by operators in the training and testing
16 program, I am wondering what degree of absence from training
17 and/or absence from examinations would in your view
18 constitute misconduct if any degree would?

19 A In the training instruction, as I remember reading
20 it, there are specific rules on how often a man can miss and
21 what he has to do if he does miss, and if he is going to be
22 over that that he has to get the operations department
23 head's permission to miss, and that he has to make up the
24 test.

25 As far as I am concerned, those are the printed

1 rules, and I would follow those printed rules.

2 Q Am I correct in understanding that the current
3 procedures are for the taking of all exams in person as a
4 sit-down exam rather than a take-home exam?

5 A I do not know the answer to that. I do not think
6 so. I think we still have some take-home exams, but I think
7 you would be better with the training department people than
8 me on that one.

9 (Pause.)

10 Q I think this may bear on a question that I asked
11 earlier, but I would just like to make sure it applies here
12 as well. On page 13 a little bit more than halfway down you
13 refer to the obligation to follow the NRC's requirements as
14 being based upon a concern for safety.

15 Do you believe that cheating on examinations is
16 directly related to safety?

17 A Yes, I absolutely do.

18 Q Do you believe that following all NRC regulations
19 and requirements are directly related to safety?

20 (Pause.)

21 A Yes, I think they do. They are the regulatory
22 agency. They are set up for the safe operation of our
23 plant. And although I might be able to go through and find
24 one nit rule that I did not think had anything to do with
25 safety, in general, yes, their rules are for the safe

1 operation of our plant.

2 Q In the next sentence you say, "Almost without
3 exception I would require my staff to adhere to these or
4 similar requirements even if there were no NRC regulations
5 on the subjects."

6 Did you have any particular exceptions in mind
7 when you wrote this sentence?

8 A No, I did not have any exceptions in mind. What I
9 was trying to enforce to the people -- not enforce but to
10 get across to them -- was that many of the NRC regulations
11 require us to do tests and inspections and surveillances of
12 our equipments and our safety systems in the plant. And
13 what I was trying to stress to them that whether or not we
14 have the NRC to tell us to do that, we would do that just
15 from common sense from operating the plant, and I did not
16 have any exceptions in mind when I wrote that.

17 Q When you conducted the individual interviews,
18 which I believe you describe on page 14 of your prepared
19 statement, you refer to the fact, as has been brought out in
20 earlier questioning, that you asked each individual whether
21 he had cheated.

22 Do you think it very likely that someone who had
23 cheated would answer in the affirmative if he were directly
24 asked by you whether he had cheated?

25 A I think there is a good chance they might have

1 because the general atmosphere of the operators today is
2 they are scared, and I think in the informal environment
3 that I was -- I tried to establish with them, and I wanted
4 their confidence clearly, I think they might well have
5 thought that now is the time to own up and not get caught
6 later. Because I made it clear to them that I thought that
7 anything -- any impropriety that went on in the exam would
8 come out in the hearings and that they ought to and they
9 owed it -- it was their obligation to tell me then, and I
10 think they might have thought that that was a good time to
11 do it.

12 Q Do you think they might have -- I guess that
13 implies that there is also a certain possibility they might
14 not have. Do you have any feel for what the relative
15 probabilities would be on that?

16 A No, I really do not.

17 Q Okay.

18 JUDGE MILHOLLIN: Before we go on, could I ask you
19 whether you communicated that attitude to Mr. W. before you
20 sat in on his interview with NRC?

21 THE WITNESS: No, sir. Before I sat in on his
22 interview with the NRC I did not even tell him why he was
23 going to see the NRC. My orders were to just have them
24 appear and not tell them why they were appearing or anything
25 else. And I just had them meet in my office and we drove

1 Q On page 15 you refer to the action which you took
2 with respect to Mr. Shipman, and at the end of that long
3 paragraph you say that, "For management to make this
4 position clear did not require more severe action in this
5 particular instance."

6 In the sentence immediately before that you refer
7 to the action as making it clear to Mr. Shipman, SF, and to
8 others who may know of it; and the question that arises in
9 my mind is whether it has been made clear to the
10 organization as a whole that conduct such as Mr. Shipman's
11 will not be tolerated?

12 A It has been made clear to my organization in the
13 meetings that I told you I have had with the individuals and
14 with them as groups, and in the meeting Mr. Arnold had with
15 them as a group. There is also a new procedure that I
16 proofread last week some time on this very subject that
17 should be issued within the next week or two that clearly
18 defines that this type of behavior is not acceptable and
19 will not be tolerated.

20 So does the whole organization know it? I think
21 they absolutely know it today, and to ensure they know it in
22 the future and it is not forgotten, we are making a formal
23 procedure to cover it.

24 JUDGE MILHOLLIN: Off the record.

25 (Discussion off the record.)

1 BY MR. CLEWETT: (Resuming)

2 Q When was the policy formulated to have shift
3 technical advisers as part of the shift?

4 A It was before I got there. To the best of my
5 knowledge they were there when I got there, and they were in
6 their training program when I got there. They completed
7 their training program, the first group of them, sometime
8 earlier this year; but they have been on shift and with our
9 shift group since I have been here. I think it was one of
10 the TMI-2 Lessons Learned that was implemented.

11 Q So is it fair to suppose that the idea for having
12 shift technical advisers arose in response to the accident?

13 MR. BLAKE: Objection. Unless I can get a nexus
14 established between the issues which are involved in this
15 proceeding and the line of questioning that at least I am
16 hearing beginning on STAs and the requirement for STAs, I
17 must object to this.

18 The question of STAs and their involvement in the
19 shifts at the plant was the subject of testimony in the
20 other proceeding, and I do not see any nexus between that
21 and the issues that we are involved in here.

22 JUDGE MILHOLLIN: I think the objection is well
23 taken. I am not sure I see the nexus either.

24 MR. CLEWETT: It appears, Judge Milhollin, that
25 from one of the corrections which Mr. Hukill made to his

1 testimony on page 17 in the first line that there is the
2 possibility of utilizing shift technical advisers in, I take
3 it, normal shift positions such as shift supervisor and
4 shift foreman.

5 JUDGE MILHOLLIN: Could you state again where that
6 correction is on page 17?

7 MR. CLEWETT: On the very first line after the
8 word "personnel" Mr. Hukill inserted the words "or STAs."

9 JUDGE MILHOLLIN: Thank you. I had not marked
10 that change on my copy.

11 MR. CLEWETT: In any event, my nexus was -- well,
12 I was interested in inquiring of the extent to which the
13 utilization of STAs in normal shift positions might
14 interfere with their ability to adequately staff the STA
15 position which, as I understand it, was the subject of the
16 prior hearing. And it was that line which I was pursuing.

17 JUDGE MILHOLLIN: The nexus again is?

18 MR. CLEWETT: The degree to which the effort to
19 staff the normal shift positions such as shift foreman and
20 shift supervisor might interfere with the staffing of the
21 STA slot.

22 JUDGE MILHOLLIN: As a result of what?

23 MR. CLEWETT: Absence of sufficient people.

24 MR. BLAKE: Judge Milhollin, I can understand a
25 question along those lines, but what I was hearing was a

1 line of questions about what was the requirement for STAs
2 and how long have they been in training and --

3 JUDGE MILHOLLIN: Okay.

4 MR. BLAKE: I can understand a question that says
5 are you going to have enough STAs.

6 MR. CLEWETT: Perhaps I was trying to nail down
7 something that was already nailed down, which is that STAs
8 are a valuable part of the shift team. Perhaps I should
9 just continue with my line absent any further inquiries into
10 the --

11 JUDGE MILHOLLIN: All right.

12 MR. CLEWETT: -- Merits of STAs.

13 BY MR. CLEWETT: (Resuming)

14 Q Mr. Hukill, if in fact it becomes necessary, as
15 you suggest, in the sentence beginning on page 16 and
16 continuing on page 17 -- if it becomes necessary to use STAs
17 on shift, would those STAs be filling in positions that are
18 normally filled by senior reactor operators?

19 A Yes, sir, they would.

20 Q That would be shift supervisor and shift foreman?

21 A That is correct.

22 Q To what extent, in your view, would the necessity
23 of utilizing an STA in a direct line function such as a
24 shift supervisor or shift foreman interfere with the
25 execution of his normal duties as a shift technical adviser?

1 A Well, he could not be both, and that would not be
2 our intent at all, and that is what you are insinuating.

3 Q I am not attempting to insinuate anything.
4 Forgive me if I seem to be insinuating.

5 A Well, he would not fill both positions. He cannot
6 fill both positions legally. If we decide that we want to
7 use licensed or STAs that have acquired SRO licences in a
8 shift position, they would be replaced as STAs by other
9 qualified STAs. And the reason that I added STAs as one
10 alternative in this is that we do have a number, a large
11 number of engineers, some of which were previously licensed
12 even as SROs, who today could qualify as STA in very short
13 order.

14 Back at the home office in technical functions,
15 for example, I can think of four or five people who know the
16 plant inside out, have had operating experience on the
17 plant, and it would take me very short order to qualify them
18 as STA.

19 For these STAs that are licensed, they would be
20 shifted to the operating crew and become part of the
21 operating crew in a non-STA position.

22 Q How many training personnel are there, if you know?

23 MR. BLAKE: Objection. The basis of my objection
24 is I do not see any nexus between that and the issues at
25 hand.

1 MR. CLEWETT: Well, let me ask it this way then.

2 BY MR. CLEWETT: (Resuming)

3 Q You also mention in that same sentence utilizing
4 training personnel on shift, and I am interested in learning
5 the degree to which you feel that utilizing training
6 personnel would -- on shift would interfere with their
7 functions as training personnel.

8 Wouldn't that -- that would seem to diminish the
9 effectiveness of the training department if the trainers are
10 working on shift.

11 A I think the first thing is to understand that we
12 probably have more people in training than we have had ever
13 before from what I understand. To answer your question
14 directly, I do feel that using the qualified people I have
15 in the training department on shift would detract somewhat
16 from our training effort. And that is why I have both STAs
17 and the training people down for us to have to look at to
18 make a decision.

19 I do have enough people that if I took one person
20 out of the training department who is a qualified SRO to
21 still run my training and continue training, obviously minus
22 one person, not as good as it was before.

23

24

25

1 Q I am sorry. I am not sure I understand. Are you
2 saying that you would only be using one person from the
3 training department?

4 A I used that as an example. If I take one person
5 from the training department, it reduces the capacity of the
6 training department by some measurable amount.

7 Q Okay. At the end of Page 17 and the beginning of
8 Page 18, you refer to the length of time that one might
9 anticipate the five shift rotation to last. You say you do
10 not anticipate it to last for an indefinite period of time.
11 I wonder if you could indicate how long you think it would
12 last.

13 A It is a very difficult question to answer, because
14 it is dependent upon how the examinations come out and how
15 we do on the examinations and how many people I have. I do
16 have a class right now that is in training for CRC that is
17 due to graduate or due to take their examination in the
18 February-March time frame. That is a class of five people
19 with one additional making six who is from the training
20 department. So that will give me additional CROs at that
21 time.

22 And again, it depends on how they did on the
23 examination, and how many failed the examination, how many
24 passed, and how many I have. My goal is certainly to get
25 back to six shifts as soon as I can, and I would see no

1 longer than six months of being able to do that.

2 Q To go back for just one minute to Page 16, in the
3 second line, under the heading Staffing, you refer to one
4 control room operator who just submitted his resignation.
5 Is this individual that you referred to one of the seven
6 that you described earlier today who has left since the --

7 A Yes, he is one of the seven.

8 Q Concerning the question of certification of
9 licensed operators to sit for the NRC examination, what is
10 your understanding of the NRC requirements for certification?

11 A The NRC requires a physical examination. They
12 require from us a letter nominating the people to take the
13 examination. Other than that, I am not sure that they
14 require anything else.

15 Q They do not require any sort of passing grades on
16 any sort of tests beforehand or anything of that nature?

17 A I do not think so, but I am not positive. I do
18 not think they do.

19 Q You state that it is your intention and commitment
20 to institute a procedure, a written certification procedure
21 prior to certifying the next group of operator candidates.
22 When would those operator candidates be certified?

23 A The next group of candidates are the ones I just
24 mentioned to you that will be in the -- I would think in the
25 early March time frame.

1 Q So they would be certified in February some time?

2 A January, February, in that time frame.

3 Q You refer on Page 19 to the method which you
4 employed in certifying candidates to take the NRC
5 examinations last April. Is the method which you describe
6 there essentially the method which would be committed to
7 writing in the procedures which you discuss?

8 A Yes, it is very close, except the procedure that I
9 have discussed and the procedure that is on my desk now in
10 draft form formalizes is far more and requires the training
11 people to bring me certain signed documents where they have
12 certified that the operators have completed certain portions
13 of the training program that are required, and it is an
14 actual certification form that would be filled out by the
15 training department personnel.

16 I would at the same time have their direct
17 supervisors there to advise me and to formally recommend
18 candidates for licensing examinations.

19 Q Would the certification procedure involve any
20 personal contact between you and the employee in question?

21 A Yes. Every single person that I certify -- I plan
22 to certify them twice, really. I plan to certify them
23 personally and personally talk to them before they are
24 recommended for the NRC examination, and then upon
25 successful completion of that examination and receipt of

1 license from the NRC, I would also talk to them to ensure in
2 my own mind that the attitude of this individual is what I
3 consider appropriate to be manning the shift as a licensed
4 operator.

5 So, I would personally talk to them on two
6 occasions.

7 Q I take it from your earlier comment that you did
8 not happen to meet with the individual candidates for the
9 certification in April. Is that correct?

10 A No, I did not.

11 Q Did you meet with them individually before the
12 certification for the October examination?

13 A Yes, I met with every single operator that went up
14 for the October examination that was on my staff. I did not
15 talk to the STAs. I did not talk to the training department
16 personnel. Mr. Herbern and Mr. Wilson did that.

17 Q On Page 18, five lines up from the bottom, where
18 you made a correction at the beginning of your testimony,
19 you changed the word "annual" to the word "biannual". I
20 wonder if you could clarify for me whether the
21 recertification process has always been biannual, or whether
22 it at one point was annual.

23 A I do not have any idea. As far as I know, it has
24 always been biannual, but I do not have any idea.

25 Q On Page 20 of your testimony, in the last

1 paragraph, you refer to the fact that one individual was not
2 certified to sit for the October examination. Did that
3 individual take the April examination?

4 A No, sir, he did not take the examination.

5 Q Was he not an employee at that time, or was he not
6 far enough along in his training, or was he -- or was there
7 a decision not to certify him at that time?

8 A No, he was an STA who was not far enough along in
9 his training at that time to take the exam, and our general
10 consensus at this point is still that he is not far enough
11 along in his training to take the exam.

12 Q In the interviews that you conducted of the
13 various individuals who took the April examination, did you
14 have occasion to interview Mr. Ross in that time frame?

15 A Yes, sir, I interviewed Mr. Ross.

16 Q You did interview Mr. Ross.

17 I believe this fact is not reflected in the chart
18 that you drew up.

19 A Number 17.

20 Q It is. Okay. I missed that one.

21 And you referred earlier to a bonus which was
22 given to the operators this summer. I believe you referred
23 to that as being related to morale. Would it be -- would
24 that have been related to the fact that some people were
25 talking about leaving the plant? Is that the sort of morale

1 problem which would have played a role in the decision on
2 the part of management to give bonuses to these individuals?

3 A When the bonus question first came up, I did not
4 think we had many people talking about leaving. It was just
5 a constant examination process, the putting off, the waiting
6 for the plant to go up, and during -- the initial bonus
7 recommendation was brought to my attention and I took it to
8 the office of the president's attention before the O and W
9 incident.

10 And after the O and W incident, and then the words
11 of the NRC that all our operators had to retake the exam,
12 the bonus issue took on far more importance to us, and
13 certainly at that point it was -- it was thought of
14 partially as a method of retaining people.

15 JUDGE MILHOLLIN: I think the record should show
16 how big this bonus is. We have been talking about a bonus
17 of undefined dimension. Can you give us an idea of what
18 kind of a bonus we are talking about?

19 THE WITNESS: Yes, sir. I believe the gross bonus
20 was \$1,350. It was \$1,300 or \$,350. It was back and
21 forth. I am almost sure it was \$1,350, and the operator
22 took home somewhere around \$800 and some.

23 JUDGE MILHOLLIN: What percentage would that be of
24 the operators' average salary or the average operator's
25 salary? The average salary of an operator.

1 THE WITNESS: That varies a great deal, because we
2 gave the bonus all the way from the shift supervisor down to
3 and including the control room operators. So we are talking
4 from the very high thirties, I would say, down to the low
5 thirties, probably.

6 JUDGE MILHOLLIN: So somewhere around \$35,000
7 would be an average salary?

8 THE WITNESS: Yes.

9 JUDGE MILHOLLIN: All right.

10 BY MR. CLEWETT: (Resuming)

11 Q Are there any NRC regulations to your knowledge
12 that require NRC tests to be taken by operators within any
13 particular period of time before a plant goes on line?

14 A There are no regulations that I know of that
15 stipulate a period of time before a plant goes on the line.

16 Q Would that be true with both the written and the
17 oral examinations, to your knowledge?

18 A To my knowledge, that is true of both the written
19 and the oral, that there are no written rules that -- when
20 it can be taken, but that is just to my knowledge. I am not
21 stating that as a fact.

22 Q Fair enough.

23 JUDGE MILHOLLIN: Mr. Clewett, how much more cross
24 examination do you think you have?

25 MR. CLEWETT: Judge Milhollin, your timing is

1 excellent. That was in fact my last question.

2 Thank you very much, Mr. Hukill.

3 MR. ADLER: Were you going to ask the same
4 question of me?

5 JUDGE MILHOLLIN: No.

6 MR. ADLER: You had that look on your face.

7 (General laughter.)

8 JUDGE MILHOLLIN: There may come a time when I ask
9 you, but we haven't gotten there yet.

10 MR. ADLER: I doubt it. It should be fairly short.

11 BY MR. ADLER:

12 Q Mr. Hukill, one thing that we did not discuss
13 regarding your interviews with all the operators was their
14 reaction to the terminations or resignations of Mr. O and
15 Mr. W. Did you bring up that subject yourself?

16 A No, I did not have to bring up that subject.

17 Q The operators brought it up?

18 A Yes.

19 Q And what was their -- could you characterize their
20 general reaction?

21 A The general initial reaction was very negative.
22 They felt the company was very unfair to the two operators
23 involved.

24 Q And then did you proceed to explain management's
25 perspective on your actions?

1 A Yes, I went through the exact sequence of what had
2 happened, and that management would not tolerate that type
3 of action on the part of O and W or anyone else, and that
4 drastic action was required because of the significance of
5 what they had done.

6 Q I take it the operators expressed surprise that
7 management would take that -- that strong a response.

8 A I am not sure it was a surprise. I am not really
9 sure if it was a surprise that management would take that
10 action, as it was the shock effect of it being those two
11 individuals. They were very highly respected. They were
12 admired by their people. They were frankly admired by me.
13 They were extremely competent people. They were in at least
14 one of the cases a gentleman who had his shift, his entire
15 shift out to his house two or three nights a week to study
16 with him. They were considered leaders in the plant. They
17 were very experienced in the plant, and I think if you had
18 asked any operator, including after the operators into
19 management, if there was anybody who was going to cheat,
20 these two never would have appeared on the list.

21 Q In short, you might call them the cream of the
22 crop.

23 A Yes, that was certainly the feeling.

24 Q Was there a general understanding among the
25 operating staff of the severity of the infractions committed

1 by O and W?

2 A At first I think the shock effect that O and W
3 were going and gone overrode that understanding of what they
4 had done. I think time and our efforts have -- have
5 overcome that, and I think that people now understand that
6 this action and the involvement of O and W in cheating was
7 just intolerable and could not be tolerated.

8 I have seen a significant change in attitude as I
9 have talked to the operators, and specifically in my last
10 talks to them on a one to one basis, I do not think I had
11 more than two people bring up the O and W affair as an
12 unfair management -- something that management did without
13 thought or without fairness.

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1 Q Did you discuss during these interviews with the
2 operators their perceptions regarding the need to cheat on
3 the April examination?

4 A The need to cheat? I do not understand.

5 Q Whether they could understand O and W's need to
6 cheat.

7 A Yes, I did discuss that.

8 Q Could you briefly explain their perceptions?

9 A The operators' perceptions?

10 Q Yes, sir.

11 A Their reaction was mixed. I very openly told them
12 that I felt some responsibility in this thing and that I
13 would always feel some responsibility for this thing, but
14 that that was no excuse for allowing or permitting cheating
15 to go on.

16 I think the operators in general felt that
17 management had a responsibility in it, that management's
18 desire to get the plant on the line, which is their desire,
19 too, which they will readily admit, and the number of exams
20 we have taken lately, one of the key issues was -- that was
21 bothering the operators was that management had made them
22 retake this exam.

23 I am not sure whether you realize that O and W did
24 not have to take the exam. The company volunteered to have
25 everyone retake the exam, the NRC exam. So that the

1 operators felt that management had put O and W in that
2 position by making an agreement on their own without the
3 request of the NRC that all our operators had to retake the
4 exam. This was a very strong feeling on the part of the
5 operators.

6 But I want to state again that as these interviews
7 have gone on and as they have progressed, I have seen a
8 definite change in attitude of the people as they have gone
9 along, and that is, this sudden, strong emotional reaction
10 at the initial discharge of O and W has sort of gone away.

11 Q Did any of the operators convey to you the concept
12 that O and W are gone, but that the persons responsible for
13 their cheating remain in the company?

14 A I have heard that, and I have seen that in
15 testimony, but no operator has told me that.

16 Q Where have you heard that?

17 A It is written in one of the NRC investigations, I
18 believe. It was written in one of the NRC investigations.
19 That is where I read it. And I was also in Mr. Arnold's
20 office the night Mr. Toole came up and expressed the same
21 concern concerning -- and I think it was one of our shift
22 supervisors that had conveyed this to Mr. Toole.

23 JUDGE MILHOLLIN: Mr. Adler, I have a question.

24 MR. ADLER: Go ahead.

25 JUDGE MILHOLLIN: To clarify a response which

1 occurred just a few moments ago, is it true that the
2 re-examination of these operators was not required?

3 THE WITNESS: Yes, sir. It is absolutely true.
4 At some time after the TMI-2 accident the company made a
5 commitment on its own that all licensed operators on Unit 1
6 would retake the exam, the NRC exam, to ensure -- to show
7 the public and to ensure that we were safe and our people
8 were qualified.

9 JUDGE MILHOLLIN: Do you think that if you had not
10 made this -- well, we will assume that that is the case. If
11 you had not made such a commitment voluntarily, do you think
12 it would have been imposed upon you?

13 THE WITNESS: I was not here, Your Honor, but I do
14 not think it would have been imposed upon us. I do not know.

15 JUDGE MILHOLLIN: You think the Commission would
16 have authorized restart without any retesting of the
17 operators?

18 THE WITNESS: I just -- I do not know.

19 BY MR. ADLER: (Resuming)

20 Q Did you get a sense for how the operators felt
21 about the October exams with regard to -- well, let me put
22 it this way: were they up for the exams?

23 A I would say they were up far more than I ever
24 expected. Again, it is a lot different talking to them
25 individually than it is in a group. But almost to a man of

1 the people who I interviewed they told me they were going to
2 do their best on this exam. I did have one or two people
3 state that they just could not give what they had given
4 before. I think I mentioned previously one gentleman had
5 sent his wife away for ten days -- wife and children, I
6 guess -- and had done nothing but study during his time off,
7 and he said he could not do that again, but that he would
8 give everything possible now.

9 Management tried to help this by making space
10 available and pay available for people to come in and study.

11 Q Was that individual, individual L, on your chart
12 on TMIA Exhibit 60? It says "Will not study at home.
13 Familiar story."

14 A I think it is. It certainly looks like it. I
15 cannot guarantee that, but I think that is the gentleman.

16 Q What did you mean by "familiar story?"

17 A That is "Family staying."

18 Q "Family staying." I should have asked you to read
19 it.

20 A You remember, these are my rough notes.

21 Q It is not any worse than my handwriting.

22 Also, on that page, individual V, can you read the
23 last word you have written there?

24 A Is that D or V?

25 Q V as in Victor, number 13.

1 A V. Yes, the last word on that page is "attitude."

2 Q Can you explain what you meant by "attitude?"

3 A It had been reported to me and I had heard that
4 Mr. V's attitude toward the company was very negative, that
5 he was extremely negative about the exams, and that he was
6 down on the company, he was planning to leave; that just in
7 general he had a very bitter attitude.

8 When I talked to Mr. V -- and I think I talked to
9 him, well, two hours -- he is also an ex-Navy, so I had no
10 problem talking with him -- his attitude towards the company
11 was very negative. But I was impressed by his attitude
12 towards his job and his responsibilities in his job. He
13 really more than almost anyone else clearly understood the
14 responsibility that was in his hands as a licensed
15 operator. I think he is the one that made the quote to me,
16 "My family lives out there. I understand what my
17 responsibility is." So I had no problem in reconciling in
18 my own mind that he would be a good operator whether or not
19 he was happy with the company policies, and what had
20 happened in the relicensing and everything would not affect
21 his ability to operate the plant.

22 Q On page 20 of your testimony you refer to one
23 individual's negative attitude about the company. Is that
24 the same individual or someone else?

25 A Yes, it is the same one.

1 Q Individual 00, number 22, we have had some
2 testimony about the rumor that cheating was commonplace and
3 accepted. Just to clarify that, was the rumor that cheating
4 was accepted by company management?

5 A No. The rumor was not that cheating was accepted
6 by company management. At least I do not think it was. As
7 I remember, the word was that since the O and W thing had
8 broken there had been considerable rumors concerning
9 cheating that had been heard but could not be substantiated
10 in any way, and individual 00 would not substantiate them to
11 me.

12 Q At the beginning of your testimony you discuss
13 your experience in the Navy and how that experience gave you
14 a strong sense of integrity, made it difficult for you to
15 believe that someone would not know that cheating on an exam
16 is improper.

17 Would you expect that most people who come out of
18 the Navy program would have that attitude?

19 A Yes, sir, I certainly would.

20 Q I would like to talk a little bit about Mr.
21 Shipman's incident. You said that Mr. Shipman cheated. Did
22 you read Mr. Shipman's signed statement to the NRC?

23 A Yes, I have. I do not remember it all, but I have
24 read it.

25 Q Are you aware of the fact that he expressed his

1 lack of understanding at the severity of what he had done?

2 A Yes, I am well aware of that.

3 Q Are you aware that Mr. Shipman had an extensive
4 career in the Navy?

5 A Yes.

6 Q Does it surprise you very much that Mr. Shipman
7 did not understand that what he was doing was so terribly
8 wrong?

9 A Yes.

10 Q Do you believe him when he said he did not believe
11 that it was something very wrong?

12 A I do not think those were his -- could I hear his
13 exact words, please?

14 Q That would take me a minute.

15 A I am not sure those were his exact words.

16 (Pause.)

17 Q I will quote from page 2 --

18 A Is this his first statement or his -- the one he
19 signed?

20 Q No. This is the one he signed dated October 22,
21 1981.

22 A Because there were two statements in the
23 investigation.

24 Q I understand that. This is page 2 of the
25 statement that he signed where he said --

1 JUDGE MILHOLLIN: Mr. Adler, excuse me. Could you
2 identify what document this is contained in?

3 MR. ADLER: This is Board Notification 81-17F, and
4 it contains the October 19th, 20th, and 22nd I&E
5 investigation.

6 JUDGE MILHOLLIN: This is the third I&E report, is
7 it not?

8 MR. ADLER: I believe so. I am not sure.

9 JUDGE MILHOLLIN: All right.

10 THE WITNESS: Yes, sir, I think it is the third
11 one.

12 BY MR. ADLER: (Resuming)

13 Q I am quoting from his statement. He said, "I
14 pointed out to Mr. Hukill that at the time this occurred I
15 realized it was improper on my part, but I did not think it
16 was significant enough to constitute a cheating incident."

17 Does it surprise you that someone coming out of
18 the Navy program would say something like that and would not
19 realize the severity of what he had done?

20 A It surprised me totally. And as I think I
21 mentioned earlier, Mr. Shipman and I had a long discussion
22 about it.

23 Q Do you believe him when he says that?

24 A I do not know.

25 Q How would you distinguish Mr. Shipman's infraction

1 from Mr. O's? Was it of the same type, just not as
2 extensive?

3 A I would certainly classify them both as cheating,
4 and I think I discuss it in here. I will try to put it in
5 my own words.

6 There was no intentional, premeditated thought
7 that I am going into this exam and I am going to cheat and
8 here is how I am going to do it. It was a chance encounter
9 that he ran into, and he made an instantaneous decision
10 which was dead wrong. And so there is to me a total
11 difference in severity of the two instances.

12 Q I would like to follow up on, while we are talking
13 about Mr. Shipman's incident, on Judge Milhollin's analysis
14 of the potential personnel who could have asked Mr. Shipman
15 the question.

16 Would you be very, very surprised if that person
17 turned out to be one of your training personnel?

18 A You mean who was taking the exam?

19 Q Yes.

20 A I do not know. It could have been anyone in the
21 other room. It would not surprise me any more if it was
22 training personnel than it would have if it was operators.

23 Q I compared the list of seven personnel who left
24 since discovery of the incident with the personnel who you
25 interviewed, and what I came out with was that SS,

1 Sally-Sally, and NN as in Nancy were not interviewed by you
2 and left.

3 A Can you confirm that?

4 A SS left before I conducted the interview. I did
5 not interview SS. And NN is the other one.

6 Q To your knowledge were either of those individuals
7 interviewed by the NRC as part of any of their
8 investigations?

9 A I am fairly certain NN was not because he left I
10 think even before the O and W thing broke. In the case of
11 SS I do not remember. I do not know.

12 Q Looking at the room charts it appears that Mr. SS
13 was one of the individuals in the room other than the one
14 Mr. Shipman was in during the same days he took the exam; so
15 wouldn't that be the possibility that no one asked him
16 whether he cheated, and he could have been that individual?

17 A Yes.

18 Q Does it concern you that there may have been some
19 facts that may have fallen through the cracks in that
20 respect?

21 A I think -- yes, it concerns me that we probably
22 have not gotten to all the facts, but the main thing is that
23 we have learned from this thing and that we have taken
24 corrective action to see that we never have anything like it
25 again; that we as management have learned and our people

1 have learned, and that we understand where we were at fault,
2 and we have taken action to correct those.

3 I am concerned if there are still problems that we
4 have not found, yes, I am concerned; but my biggest concern
5 is that we have learned from this thing.

6 Q When Mr. Shipman serves on shift, what capacity
7 does he do so?

8 A Mr. Shipman, he works for Mr. Ross, and he is the
9 primary plant engineer. And when he serves on shift he
10 serves as the shift foreman or shift supervisor. He only is
11 required to fill in once a month to keep his license
12 current. He is not a normal shift operator.

13 Q At the very bottom of page 14 of your testimony
14 you state, and I quote, "While SS' conduct raised questions
15 in my mind about his judgment, including his capability to
16 respond properly to unexpected events," et cetera. Don't
17 you feel that Mr. Shipman's judgment and his capability to
18 respond to unexpected events are critical to his ability to
19 perform as a shift foreman or a shift supervisor?

20 A Yes, I feel they are critical to his ability to
21 perform, but I also understand that everyone is not perfect
22 and that a mistake of this kind, which I think it generally
23 was in his case, a mistake can be made. It reflects poor
24 judgment on his part. It certainly was not right.

25 But I think that in dealing out discipline, you

1 have to look at each and every aspect of it, and you have to
2 take the individual into concern and all phases of his job
3 performance, his previous job performance. He has performed
4 for seven years for us as one of our top people. He has
5 been involved in numerous evolutions in the plant. And this
6 was all looked at when the decision was made.

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1 Q Do you work closely with Mr. Shipman?

2 A No, not really, but I see him fairly often, and I
3 see a lot of work he does. He is on the PORC, the plant
4 operations review committee, and he reviews an awful lot of
5 material that comes to me, and I see his comments, and I
6 receive an awful lot of information on what he does directly
7 from Mike Ross and Ron Toole, and I probably see him more
8 than the other operators, but I do not work directly with
9 him.

10 Q Is the majority of his work what you would call
11 desk work, where you have time to reflect on things rather
12 than something where you would need to respond
13 instantaneously to a problem?

14 A Both types. He, if anything happens in the plant,
15 he is one of the first people in the control room with Mike
16 Ross. He is Mike's righthand man in the control room. He
17 also is involved in questions on procedures that come to the
18 PORC for review. He is Mr. Ross's direct assistant for the
19 primary plant in developing procedures and that sort of
20 thing, so really both.

21 Q Let's go to your discussion of staffing on Page 16.

22 JUDGE MILHOLLIN: I have a question about Mr.
23 Shipman before we leave the subject.

24 MR. ADLER: Yes, sir.

25 JUDGE MILHOLLIN: I will have to admit that the

1 thing that disturbs me about Mr. Shipman's statements the
2 most is his inability to remember anything about the
3 conversation he had, and now that you disclosed his Navy
4 background and your view of the nature of that background, I
5 am going to ask you whether you think that makes it less --
6 well, to me that makes it even less easy to accept this
7 strange inability to remember. Do you have the same
8 reaction?

9 THE WITNESS: Your Honor, I had the same reaction
10 the first two times I talked to him. I was fairly hard on
11 him on the second time. I really worked him over the second
12 time, and I believe him. I cannot believe he could put up
13 with the pressure I put on him if he knew the names of these
14 people, or person.

15 BY MR. ADLER: (Resuming)

16 Q Mr. Clewett clarified most of the points I wanted
17 to with regard to staffing. I want to clarify that the
18 personnel you have identified on Page 16, do they include
19 any other personnel who have resigned, aside from the one
20 noted in your parenthetical?

21 A No, sir.

22 Q Of the operators who resigned, I came up with two
23 shift supervisors, one shift foreman, and four control room
24 operators. Can you verify that?

25 A That is correct, to an extent; two of the control

1 room operators are not licensed. So there were two licensed
2 control room operators, two trainee control room operators,
3 and O and W, the two shift supervisors, and one shift
4 foreman.

5 Q Were any promotions made since that time to
6 replace the two shift supervisors and the one shift foreman?

7 A Yes, sir, we promoted two former shift foremen to
8 shift supervisors.

9 Q Can you identify those individuals?

10 A Yes. Mr. F and Mr. P.

11 Q And which individual was elevated to the shift
12 foreman level?

13 A We have not elevated any to the shift foreman
14 level at this time.

15 Q Oh, I am sorry. Is it your intention to start the
16 plant if you do not have enough operating -- licensed
17 operating personnel to complement five shifts within the
18 bounds of your commitment to the Commonwealth?

19 A We will live totally within the bounds of our
20 commitment to the Commonwealth.

21 Q That commitment allows you to operate for some ten
22 days with less than five shifts. Would you actually start
23 up the plant, initially start up the plant if you had less
24 personnel than that?

25 A I would not give you a yes or no, but I personally

1 would not, because the odds are that you would have somebody
2 else sick or something, and you would be immediately in a
3 problem, and I would think it would be very poor planning
4 and a very poor practice to do that. I would recommend
5 strongly against it.

6 Q As of the week of April 21, 1981, when the initial
7 set of NRC exams were given, when were the oral exams
8 scheduled?

9 A They were not scheduled by specific date yet, but
10 I believe that the time frame of September was the same time
11 frame we are talking about. I would have to check with the
12 NRC, but I think we were still talking September time
13 frame.

14 Q Was it a minimum of September and maybe later?

15 A I really cannot remember. I think it was
16 September, October time frame, in that period.

17 Q I see. Did the operators know that when they took
18 the written exams?

19 A Yes, sir. I think they did.

20 Q So they had a number of months after the written
21 exams to study for the oral exams.

22 A That is correct.

23 Q You have described the amount of intensity that
24 went into studying for the April exams. Would you
25 characterize most of the operators as very tired after they

1 took the exams, emotionally and physically?

2 A I did not notice them physically tired. I noticed
3 an emotional -- almost an emotional letdown. You know, it
4 is over. My God, it is over. But I did not notice any real
5 physical tiredness.

6 Q Did any of them request or take time off, at least
7 the first few days after the exam?

8 A I cannot answer that. I do not sign their
9 vacation things, and the only time I would be knowledgeable
10 is if we had some sort of a problem of manning.

11 Q Would Mr. Ross be the best person to answer that?

12 A I think he would be the best, yes.

13 Q Thank you.

14 I have one set of questions on TMIA Exhibit 58,
15 which were the notes of the interview with Operator 00. On
16 Page 2, at about the middle of the page, one of the
17 questions is, "What do rumors report?" And the response
18 was, "I don't care to repeat. Rumors are rumors", et
19 cetera. Do you recall whether the NRC investigators pursued
20 that further, or did they let it drop when -- when the
21 operator expressed an unwillingness to repeat rumors.

22 A Can I answer that in a general way?

23 Q If you need to. I prefer if you can --

24 A I cannot specifically remember this one.

25 Q I see.

1 A Although the next line says, what else, any rumor,
2 people cheated. In almost every case people told the NRC
3 investigators they had heard rumors. The NRC pressed them
4 to supply more information from those rumors, and no one
5 came forth with anything other than they were rumors.

6 Q In your testimony, you state that one of your
7 purposes for attending the interviews was to increase
8 cooperation. Do you find it to be an acceptable degree of
9 cooperation for the operators to state that they know of
10 rumors but do not care to repeat them or do not want to
11 repeat them?

12 (Pause.)

13 A I think that any operator who knows anything about
14 this should come forward and tell it, and get it out in the
15 open, and get it clear, and I -- but I do not think that an
16 operator that has just walked through the control room and
17 heard something in the background, as is mentioned in a
18 number of the testimonies, that he does not know where it
19 came from and he does not have anything to substantiate it,
20 should be coming out and just be saying it.

21 Q So the distinction you are making is, if an
22 operator has a concrete rumor, he should bring it forth, but
23 if it is just a general sense that rumors are around, he
24 should not?

25 A No, my feeling is that if you know something is

1 wrong, you should bring it out and you should state it, but
2 if you have just heard something through hearsay, through
3 the third person party or a fourth person party, I see no
4 reason for them to come forth with it.

5 Q Ms. Bradford asked you questions regarding your
6 knowledge of rumors pertaining to Mr. U, and you could not
7 recall any knowledge of such rumors prior to his interview
8 other than the KK phone conversation. Perhaps I can refresh
9 your memory. Mr. Arnold discussed a rumor that passed
10 through Mr. NNN, as in Nancy, through Mr. T's wife,
11 regarding accusations that U had crib notes and wrote
12 materials on his exam.

13 A Yes, I had heard of that one. I apologize. I had
14 heard that one. I was in Mr. Arnold's office when that one
15 was brought up. She asked me about U and V, I believe. I
16 had never heard about U and V.

17 Q So the first rumor you had heard at the time of
18 your interview with Mr. U in October.

19 A I had heard the first rumor, yes. I was in Mr.
20 Arnold's office when that was brought up.

21 Q Yes, sir. Did you specifically ask him whether
22 that rumor was true?

23 A No, I did not.

24 Q In one of the discovery documents, and I believe
25 this is the source of Ms. Bradford's rumor, it is on Mr.

1 Wilson's what I take to be note stationery dated September
2 2, 1981. It refers to Mr. RR and a rumor he heard. He
3 wanted to know if it was true that V alleged that U had
4 cheated. Had U learned of that allegation at the time of
5 your interview of Mr. U?

6 A I have to find RR.

7 (Pause.)

8 A If that is in Mr. Wilson's testimony I was aware
9 of it because I had read it but I had not read it at the
10 time that I interviewed Mr. U.

11 Q You would say it would have to be in his written
12 testimony in this proceeding. Is that what you are saying?
13 What do you mean by Mr. Wilson's testimony?

14 A The testimony he presented, if this accusation you
15 are talking about is in that testimony, I have read it and I
16 know about it. I had not seen it at the time I interviewed
17 U. Does that answer your question?

18 A Yes, sir, it does.

19 JUDGE MILHOLLIN: The accusation we are talking
20 about again is --

21 MR. ADLER: That V alleged that U had cheated.

22 JUDGE MILHOLLIN: All right.

23 THE WITNESS: How did RR get in? I am lost.

24 BY MR. ADLER: (Resuming)

25 Q Well, the note that I am reading from has RR at

1 the top of the page, and I presume from that that what
2 follows came from him. Now, we can clarify this with Mr.
3 Wilson with more precision. In any event, you do not really
4 have knowledge of it.

5 A No, I do not have any knowledge.

6 Q Prior to your October set of interviews, did you
7 discuss with Mr. Wilson any leads that you might have and
8 potential rumors that you should follow up on?

9 A Yes. I talked to him some time, I think it was
10 early September or some time before he conducted his -- in
11 fact in one of my interviews I mention on Interview Number
12 5, GG, if you will note my comment "still has question with
13 Wilson, the same answer as W and T exam". I went over with
14 Mr. Wilson some of the -- what he had at that time.

15 Q What he had pertaining to the Trunk investigations?

16 A Yes, I believe, and again, my time frame gets
17 mixed up on when, but I had been over with Mr. Wilson what
18 he got from the Trunk evaluations.

19 Q Did you go over any other rumors besides the Trunk
20 rumors or the Trunk allegations?

21 A Yes. We reviewed the phone call conversation
22 with, I believe it was KK and U, or he went over the phone
23 call conversation we discussed previously. It was U --

24 JUDGE MILHOLLIN: He meaning Mr. Wilson?

25 THE WITNESS: And KK. Right.

1 BY MR. ADLER: (Resuming)

2 Q I do not want to create any misleading information
3 in the record. Was it with certainty U or was it allegedly
4 U?

5 A It was an alleged phone conversation that Mr. KK
6 said that he received from Mr. U in the shift supervisor's
7 office.

8 Q I just have one more follow on line. Mr. Clewett
9 was asking you about the opportunities of operators to cheat
10 in every day procedures or falsification of records he was
11 asking you about. As part of your operating personnel's
12 every day duties, do they routinely fill out system status
13 sheets, a.d sheets that describe which systems are operable,
14 and so forth?

15 A Yes, sir, they do.

16 Q So records and written procedures are a part of
17 their every day operating experience?

18 A Yes, they are.

19 Q And the need to do this with integrity and not to
20 falsify is, you would say, critical to the safe operation of
21 the plant?

22 A Absolutely critical.

23 MR. ADLER: Thank you very much.

24 JUDGE MILHOLLIN: I have one question which I
25 think it would be better to ask now than to wait until later

1 to ask. When you talked to Mr. GG, Number Five on your list
2 --

3 THE WITNESS: Yes, sir.

4 JUDGE MILHOLLIN: -- as I understand your
5 testimony, it is you knew at the time you talked to Mr. GG
6 of the similarities between his answers and Mr. W's answers
7 on the Category T makeup exams.

8 THE WITNESS: To the best of my knowledge, I did.
9 I knew about them and I had talked to Mr. Wilson, and I am
10 fairly certain although I cannot swear I knew it at the
11 time, Judge, but I think I did.

12 JUDGE MILHOLLIN: My question is -- well, I am
13 asking you because you made notes about it. Did you
14 confront GG forcibly with this information and demand that
15 GG explain why the answers were similar?

16 THE WITNESS: Yes. I fairly strongly asked him
17 why the answers were similar and what he was doing about
18 it. He stated emphatically to me that he did not cheat and
19 he did not copy Mr. W's examination, and that he thought it
20 must have been a handout that was the same, or maybe Mr. W
21 looked at his paper without his knowledge, but I took the
22 issue up with him.

23 JUDGE MILHOLLIN: Thank you.

24 BY MS. SWARTZ:

25 Q Mr. Hukill, my name is Lucinda Swartz. I am

1 counsel for NRC staff in this case. I have a question for
2 you first about your experience in the nuclear Navy. You
3 were in the nuclear Navy. Isn't that correct?

4 A Yes, that is correct.

5 Q How many years were you in that program?

6 A I was in from 1957 to -- I guess it was January,
7 1976, when I retired.

8 Q And what was the highest rank that you achieved?

9 A Captain.

10 Q Do you know anything about the ship, the U. S. S.
11 Guadalcanal?

12 A I know -- I know what the Guadalcanal is. It is a
13 helicopter carrier, I think.

14 Q Can you tell me whether or not it is nuclear
15 powered?

16 A No, it is not nuclear powered.

17 Q You testified earlier that you believed the
18 operators were substantively prepared for the April, 1981,
19 NRC examinations. Do you believe they were also
20 substantively prepared for the October, 1981, examinations?

21 A Yes, I think they were. They had done so much
22 studying for the April exams that I am sure a lot of that
23 stayed, and even though a number of them outwardly said they
24 were not going to study as hard, I saw an awful lot of
25 people in there studying, and they were working -- there

1 were a few who did not work as hard, but the majority of
2 them worked hard, and I feel were ready for the examination.

3 Q Do you believe that for the October, 1981, exam it
4 was perhaps more difficult for the operators to become
5 psychologically or mentally prepared for these examinations?

6 A Yes.

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1 Q Do you also believe that because the written
2 examinations were so closely followed by the oral
3 examinations that this whole process in October might have
4 been more difficult for them?

5 A Yes. I think having the oral right with the
6 written is difficult, although, you know, you get the whole
7 thing over at once, too. There is two psychologies there.
8 It was difficult for them, but they got the whole thing over
9 with. And if they did well, although some of them still do
10 not believe it, hopefully they will not be taking another
11 exam for a while.

12 Q I have some questions for you now on some
13 questions that were asked you earlier by some other parties.

14 First, with respect to TMIA Exhibits 55 through
15 59, I do not think it is necessary for you to look at them,
16 just that is the reference.

17 Just so the record is clear, is it true that those
18 exhibits are typed up versions of your notes as opposed to
19 verbatim transcripts of those meetings?

20 A Yes. Those are dictated versions of my notes. I
21 dictated to my secretary from my notes these notes, so there
22 may be differences. I had to interpret my notes. They were
23 dictated about a day later, I think.

24 Q With respect to Exhibit 58 -- again, I do not
25 think that you need to refer to it -- that deals with the

1 interview with Mr. OO, in that document it talks about that
2 he heard rumors. Is it true that in your interview of Mr.
3 OO that you asked him whether he knew of any cheating,
4 whether he cheated, or whether anyone else cheated; and his
5 response was negative?

6 (Pause.)

7 A Yes, that is correct. OO stated, "Did not cheat
8 or does not know anyone who did."

9 Q And with respect to TMIA Exhibit 59 -- that is,
10 the interview of Mr. Q -- is it true or did you interview
11 Mr. Q, I should ask?

12 A Yes, I did interview Mr. Q.

13 Q Is it true that although in his interview with the
14 NRC he told rumors that he had heard regarding cheating,
15 that in your personal interview with him he stated he had no
16 knowledge of any cheating?

17 A Yes. I had down "No problems." And my code word
18 was if they said "rumor" I put it down. He did not mention
19 them to me, to the best of my knowledge.

20 Q Thank you.

21 You mentioned that you believed the operators were
22 discontented after they took the April examinations. Do you
23 believe that part of that discontent could have been the
24 difficulty of that exam?

25 A That was totally the reason. The vast majority of

1 operators felt the April examination was extremely
2 difficult, and in fact, the vast majority felt they did
3 poorly.

4 Q I have some questions regarding the Shipman
5 incident. Considering the rather important details Mr.
6 Shipman states that he cannot remember, would you think it
7 possible that perhaps Mr. Shipman -- that perhaps his memory
8 regarding the events he does recall are somehow erroneous,
9 that perhaps his memory is not clear?

10 A Yes. I think that could be true. He even at one
11 time told me he was not sure it was the NRC exam it happened
12 on but deduced it must have been because the exam before
13 that, the ATTS exam, as I understand it, they were in two
14 rooms. So he deduced it was the NRC exam.

15 Q Do you know whether he is certain as to whether
16 the question he remembers answering was in fact on the NRC
17 examination?

18 A I believe in his statement he said it was, but I
19 am not certain of that.

20 Q You stated that if Mr. Shipman remembered
21 correctly --

22 A No. Please let me correct my last statement. Mr.
23 Shipman does not remember the question. I have been over
24 that with him a number of times in very great detail, and he
25 does not remember either the person or the question.

1 Q In that case do you think it could be possible
2 that he was getting a cup of coffee, that someone asked him
3 a question that was not on the NRC examination; someone
4 asked him a question; he answered that question; went back
5 to take his examination; but the question he was asked and
6 answered was not contained on the NRC exam?

7 A That is certainly a possibility, but -- that is
8 certainly a possibility.

9 Q If that is a possibility, or given the
10 hypothetical, if that is what happened, then that would not
11 be an incident of cheating, would it?

12 A Yes. I still consider it cheating because there
13 was an exam in process. He knew there was an exam in
14 process. He had to assume that the person in the other room
15 was taking the exam.

16 (Counsel for NRC Staff conferring.)

17 Or that the person he was talking to was taking
18 the exam.

19 Q It would not mean that the person who had asked
20 him the question was guilty of any wrongdoing, however.

21 A No, it would not mean that, but certainly in my
22 eyes Mr. Shipman was still at fault.

23 Q You also mentioned in response to some cross
24 examination that you went with your employees to the NRC
25 interviews to make sure that the NRC investigators were fair

1 to your employees. Did you have any knowledge or
2 information before you went to the interviews for the NRC
3 that they had a tendency not to be fair with their
4 interviewees?

5 A No, I had no such information.

6 Q Earlier you were discussing the training program
7 that you had. Would you say that some of the modifications
8 you have made to the training program since you discovered
9 this cheating incident is one of your responses to the
10 cheating incident?

11 A Yes.

12 (Pause.)

13 Q You were also asked a question regarding whether
14 you believed the operators you interviewed would have in
15 fact told you that they had cheated. Isn't it a good
16 indication that operators would have told you that they
17 cheated when you asked, that Mr. Shipman in fact did do that?

18 A Yes, I think it -- that that is a good
19 indication. And I might say I have been dealing with people
20 for 28 years. I think that the vast majority would have
21 answered me -- I certainly cannot guarantee that everyone
22 would have -- but I feel a majority would have answered me
23 truthfully if they had been cheating.

24 Q One last question regarding the Shipman incident.
25 You stated that you put a lot of pressure on him to tell you

1 everything he knew. Could you describe a little bit what
2 kind of things you said, what kind of pressure you did put
3 on him?

4 A Well, I got very angry, which is not my normal way
5 of doing business with people. I told him very honestly
6 that I could not in my own mind conceive that he would
7 remember the incident and not the people. I let him know in
8 very clear terms that I considered the incident very severe,
9 and that I considered him at fault, and that I considered
10 his actions wrong, and that I considered it absolutely
11 essential to his moral integrity that he tell me anything
12 else he knew about it at all.

13 And I want to clarify this with: Mr. Shipman to
14 me is a very fine individual. He is one of the best we have
15 out there. And yet, this one incident I said could ruin his
16 whole record and especially if it comes out that there is
17 more that he should have told us. And I spent in fact --
18 emptied my trailer and spent an hour and a half with him on
19 the second time going over this incident, trying to assure
20 myself that before I recommended any disciplinary action to
21 Mr. Arnold that I was assured that Henry Shipman was being
22 honest with me, and that he fully understood at least now
23 the seriousness of what he had done and why it was so
24 serious, and I believe that. It was a very probably
25 one-sided conversation, but it was a very strong

1 conversation that I had with him.

2 MS. SWARTZ: Thank you, Mr. Hukill.

3 That is all the questions I have.

4 JUDGE MILHOLLIN: We are reaching break time. Do
5 you have any redirect?

6 MR. BLAKE: I just want to ask him a couple of
7 questions, and maybe we can get rid of Mr. Hukill during the
8 break.

9 JUDGE MILHOLLIN: I have a few questions for him
10 myself. I am inclined to take a break before I ask them.

11 Before we take a break, I think I should say that
12 I have thought about your suggestion concerning the
13 communications of witnesses with the press, and it seems to
14 me that well, I agree with you that a witness should have
15 the opportunity to clarify any misconceptions the press
16 might have about his testimony. Since the press
17 theoretically could get everything right the first time,
18 including all the details, it is hard for me to think of a
19 ground upon which I could say that a witness would not be
20 able to go back over his testimony.

21 So I agree with your suggestion and do withdraw
22 any restrictions whatsoever on witnesses in their discussion
23 with the press concerning the content of their testimony.
24 However, the undertaking which the parties' representatives
25 have made would still nevertheless remain in force.

1 So with that clarification, we will take a break
2 until 3:40.

3 (Recess.)

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1 JUDGE MILHOLLIN: Mr. Blake, are you ready?

2 MR. BLAKE: I just have a couple of questions on
3 redirect, Judge Milhollin.

4 REDIRECT EXAMINATION

5 BY MR. BLAKE:

6 Q Mr. Hukill, during the course of your cross
7 examination, I believe by Mr. Clewett, you asked questions
8 about the training program at TMI-1, and you described to
9 Mr. Clewett changes in that training program which you were
10 recommending or that you thought were under way or being put
11 into place.

12 Would you characterize -- I believe one of those,
13 for example, was a training manual that you referred to.
14 Would you characterize these as items necessary to attain an
15 adequate training program?

16 A No, I would characterize them as items to improve
17 what we already have and to make our training program better.

18 Q Is in your view the current training program
19 adequate?

20 A Yes.

21 Q You would --

22 A Yes, the current training program is adequate and
23 been considerably improved.

24 Q Do you envision a time in the future, for example,
25 when you have completed this training manual that you

1 referred to or other modifications of which you are aware
2 that in your view would be sufficient and you would envision
3 no further changes in the training program?

4 A No; no, sir. I think the training program will be
5 in a continual state of change and upgrading as long as I am
6 there. It has to be.

7 Q What is it that -- let me withdraw that. The
8 recommendations for changes or what you found or
9 characterized as improvements in the training program which
10 you make, are they occasioned by what you would regard as
11 necessary and by feedback which you get from the operators
12 that work at TMI-1?

13 A Yes, absolutely, and from my direct managers.

14 Q And is there an effort by you to feed back into
15 training improvements which the operators suggest?

16 A Definitely. There are weekly meetings and even
17 daily meetings on some occasions with the operations and
18 maintenance people and the training people to feed back
19 information into the training program. That is a result of
20 the operators' experience in that program.

21 Q Mr. Hukill, during much, if not all, of the
22 cross-examination that you have been undergoing now almost
23 for a full day, you have been asked to respond to a number
24 of questions about the operators that work for you described
25 in some detail, like, say, warts on the operators or company

1 of operators.

2 Do you think that the shortcomings, problems,
3 however you would characterize the subjects which have
4 constituted the bulk of the cross-examination are a good
5 representative characterization of your operators, or do you
6 have some other description of them?

7 A No, I think in the cross-examination I have been
8 through it has concentrated mainly on the problem areas that
9 we have had. I would like to emphasize that in my opinion
10 the operators that I have working for me are some of the
11 sharpest, most dedicated people I have ever come across, and
12 that includes my more than 19 years at sea in the Navy.

13 When I came here I was not expecting really to see
14 and have as competent, dedicated, loyal group of people that
15 I have working for me today. My individual interviews with
16 these people were especially enlightening to me, to learn
17 just how much they do care and just how much they are
18 concerned about their responsibilities and just how serious
19 and dedicated they are to their job and to their
20 responsibilities, and that they really do understand their
21 position as being in a regulated environment.

22 They are truly outstanding people if I had to
23 grade them as a whole and people I am very proud to be with
24 and people that have certainly helped me.

25 I also observed them very closely during our

1 emergency drill where I saw them operate and I watched them
2 operate, and they are professionals.

3 MR. BLAKE: I have no more questions.

4 EXAMINATION BY THE SPECIAL MASTER

5 BY JUDGE MILHOLLIN:

6 Q I am going to ask you some questions about things
7 we have been over, some of which you may have already
8 answered. First of all, with respect to your participation
9 in the interviews, the NRC staff's testimony, particularly
10 Mr. Ward on page 18 of his testimony, concludes that your
11 presence inhibited the free flow of information, I think he
12 said, or at least somewhere in these documents there is that
13 conclusion by the staff.

14 Do you agree with that?

15 A No, sir, I do not agree with that.

16 Q And I think you were asked earlier about whether
17 your involvement would preclude an employee from reporting
18 on management involvement. Perhaps you were not asked
19 that. Do you think that potential existed?

20 A Your Honor, I think the potential might have
21 existed, but I think watching my people as they testified
22 and listening to them, that they would have been absolutely
23 honest with anything that happened. I think to a large
24 degree most of them were so concentrating on their specific
25 interview that they almost did not realize I was in the room.

1 Q I assume you are excepting O&W from your
2 characterization of all the employees being honest who were
3 interviewed, or are you not?

4 A No, I am excluding O and W. I was only in with
5 one. I was only in with W.

6 Q I know you were. Did you believe W during his
7 interview?

8 A No, Your Honor, I did not. I wanted to very much,
9 but I did not. I had seen his exam papers and I was
10 personally convinced from the minute I went up that there
11 was a problem.

12 Q Did you confront him with your point of view after
13 the interview? I think I have already asked you whether you
14 did before. I think you said you did not talk to him at all
15 before, did you not?

16 A I did not talk to him at all before except in
17 generalities and just that the NRC had asked to see him and
18 that we were going up. I cannot remember who got there
19 first, O or W, but as soon as they came, I told them they
20 wanted to interview him and offered for management to be
21 there, but I did not say anything about what the interview
22 was about.

23 Q Did you confront W after the interview with your
24 conclusion that he had cheated?

25 A No, sir, not really. I drove him back to his car,

1 and as I remember, he asked me where it went from here, and
2 I said we will just have to wait and see.

3 Q Can you tell me why it is that you did not feel
4 that you -- well, you said that you were very disappointed
5 and surprised because you had a great deal of confidence in
6 him. Why didn't you tell him that you thought he was not
7 being truthful?

8 A Well, at that point, as I understood it, it was an
9 NRC investigation and my job was to listen and be there and
10 not to participate. And I am fairly certain that that was
11 discussed beforehand, that we were not going to interfere or
12 take any action until the NRC concluded their
13 investigation. And during the next week we did not, at
14 least I did not talk to W or O or call them in because we
15 were clear the NRC was taking this action and it was under
16 their purview and that we were not to interfere.

17 So I did not talk to either of them the next week
18 except when I was with them with the NRC.

19 Q Did you talk to him before his second interview?

20 A In the same general tone as I did in the first
21 interview. The second interview, he was to go up and sign a
22 statement, and I told him I was there to go with him if he
23 wanted me to. He asked me to, and I do not think anything
24 else was said. I might have told him don't sign it if it is
25 not the truth. It seems to me I said that, but beyond that,

1 nothing. I did not give him any counsel or anything else.

2 Q You did not feel obligated to take any action once
3 you had decided that he had cheated --

4 A Oh, yes, we took immediate action.

5 Q -- and was being dishonest in his interviews:

6 A We took immediate action the night of the
7 interviews, I am almost sure. The first interview, we
8 removed him from all licensed duties. I called and directed
9 that the night of the interview. So we removed them from
10 all licensed duties as soon as we heard about the incident,
11 and that was a suspension waiting for the outcome of the NRC
12 exam. And I feel fairly certain that if you talk to -- when
13 the NRC testifies, or I do not know what Mr. Arnold said,
14 but the investigation during that first week was totally the
15 NRC's and we made an agreement to stay out.

16 Q You drove with Mr. W down to Bethesda, right?

17 A Yes.

18 Q By this time you had concluded that he had
19 cheated; is that right?

20 A In my own mind I knew he cheated, yes, sir.

21 Q Did you tell him that you thought he cheated
22 during the trip?

23 A No, sir, I did not. His lawyer was also in the
24 car.

25 (Laughter.)

1 Q Did you ask him why his answers were so similar to
2 those of Mr. O?

3 A No, sir. Again I emphasize that we were told that
4 it was the NRC's investigation and they were handling it.

5 Q The only other question I have on that subject is
6 whether it might not have been possible for you to wait
7 until operators requested your presence rather than offering
8 it in advance. Do you think it would have been inadequate
9 to wait until the operators themselves requested you?

10 A I am not sure, Your Honor, whether they really
11 would have known that they had that available. I frankly
12 went up because that was my basic training. My people are
13 mine, and right or wrong, I go with them. That does mean I
14 agree with what they had done, but that I would go up with
15 them. And I felt all along that while they were undergoing
16 this, that someone from management should be there.

17 It never once entered my mind that I was
18 inhibiting them.

19 Q I have a couple of other categories of things I
20 would like to ask you about. The second one is your
21 decision and your procedures for certification. You have
22 testified in general about it. I would like to have you
23 respond to some questions I have about particular cases.

24 I am thinking first of all about -- well, I
25 suppose at the time you certified W, there was strong

1 evidence that W had cheated on one examination. Is that not
2 right?

3 A No, sir, not that I know of.

4 Q Didn't W and O give parallel answers on the mock
5 examination?

6 MR. BLAKE: Judge Milhollin, with some reluctance
7 I get involved when you are questioning, but rather than
8 refer to it as a question without any basis of fact in the
9 record, I think it would be more fruitful for all of us if I
10 were just to I think cure what may be a misunderstanding.

11 JUDGE MILHOLLIN: Very well. If there is a
12 misunderstanding I will accept that in a friendly way and
13 encourage you to correct me.

14 MR. BLAKE: It is in fact true that investigations
15 have disclosed that O and W had quite similar answers on
16 ATTS, but that grew out of the same NRC investigation when
17 they came to the site, and having already disclosed or
18 discovered the similarities in the NRC exam, they looked
19 back, asked for, received and looked at the ATTS exams, and
20 it was really subsequent to their discovery of the NRC exams
21 that they discovered and information first came out about
22 the ATTS exams.

23 I leave that to any other party to --

24 JUDGE MILHOLLIN: No, thank you. That is my
25 understanding also and I was not confused about that. I am

1 assuming that the fact of those parallel answers existed at
2 the time the certification decision was made, unless the
3 certification decision was made before the mock exam was
4 taken.

5 MR. BLAKE: I see your question. I think Mr.
6 Hukill can respond to it.

7 THE WITNESS: We did not know anything, at least
8 the training people did not report it, and I do not believe
9 anyone knew about the similar answers.

10 BY JUDGE MILHOLLIN: (Resuming)

11 Q Do you think your procedures were sufficient,
12 since the answers existed, there were several sets of them
13 which were identical and they were not reported to you?

14 A No, sir, I do not think their procedures were not
15 adequate since we did not catch it.

16 Q I am sorry. I am asking you whether you thought
17 your procedures were adequate since they did not catch it,
18 and your answer is?

19 A They were not adequate.

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1 Q They were not adequate. That is what I thought
2 you said.

3 Okay. With respect to G and H, I also am a little
4 concerned about their case. As you know from the documents
5 which already are -- have been generated, they gave, I
6 believe it was, eleven sets of identical answers on the
7 three different rounds of examinations, and some of the
8 identical answers, at least the documents indicate, may be
9 explainable on the ground of instructional materials.
10 Obviously, I am referring to documents which are not in
11 evidence.

12 It is also true, I believe, that one of these two
13 operators, Mr. H, was the subject of a letter which you
14 wrote to the Nuclear Regulatory Commission on October 29,
15 1981. Do you recall that letter?

16 A Yes, sir.

17 Q If you would like to have a copy before you answer
18 my question, you may. You probably do not need a copy. I
19 think the letter informed the NRC that some examinations
20 were lost.

21 A Yes, sir.

22 Q And that Mr. H's examinations were some of those
23 which were lost.

24 A Yes, sir.

25 Q And that Mr. H received a grade of 62.8 for

1 category G.

2 A When they found his examination.

3 Q It was discovered that that was his grade.

4 A Right.

5 Q Mr. H -- well, I guess my first question with
6 respect to Mr. H in particular is how did the instructor's
7 review of his performance on that exam result in approval of
8 him? I think you said in your letter that the instructor's
9 review is the basis for the certification.

10 A That is right. The manager of operator training
11 certified to me that these exams were graded, and I really
12 think it is probably better for him to answer to you how he
13 got that certification. He certified to me that all the
14 requirements were met before I signed the letter certifying
15 the people for the examination.

16 Q From what you know in your letter would you say
17 they were met with respect to Mr. H?

18 A No, they were not.

19 Q That was my impression. I just wanted to see
20 whether you shared my impression.

21 A I share it, Your Honor.

22 Q With respect to Mr. H, do you know whether Mr. H
23 passed the April 1981 exam, NRC exam?

24 A My recollection is that he did not, but I am not
25 positive.

1 Q That is also my recollection. I assume that if it
2 is incorrect that someone would point it out.

3 Mr. H also failed, I think, the Category T
4 examination three times. As I recall, he failed the first
5 round given by Mr. Kelly, and then Mr. H failed the first
6 requalification examination round, and then he failed a
7 second round which he took home.

8 I would like for you to tell me how you decided to
9 certify Mr. H in view of that kind of a record.

10 A I cannot remember Mr. H individually, Your Honor,
11 but I can remember that we had three or four operators, of
12 which Mr. H was one, that we went through as a group, as I
13 described in my testimony, of all the senior people in the
14 training department -- the vice president-nuclear assurance,
15 the senior people in my department -- and reviewed each and
16 every case individually.

17 There were --

18 Q Can you refer me to the page in your testimony?
19 Is that page 20? Is that right? Perhaps pages 19 and 20.

20 A Yes.

21 Q That is the discussion?

22 A That is page 19.

23 Q Can you tell me when this happened, this
24 particular I guess we could call it a group -- a discussion
25 among the people who are listed here, when that happened?

1 A Yes, sir. It was in April after the ATTS exam,
2 and we had the results of the ATTS mock examination, and
3 before the NRC examination. And it was our final
4 determination of whether we were going to send these people
5 up or not.

6 Q Okay. Did you have at this time also the results
7 of Mr. H's performance on the Category T examination?

8 A I would assume that the training manager had
9 them? I did not have them personally, no, sir.

10 Q Well, I guess I am asking you given this
11 background how you decided to certify him.

12 A I am trying to remember Mr. H from the rest. It
13 seemed -- I cannot distinguish him from the rest. There
14 were about six people who had had various academic problems
15 in completing their courses and then getting everything done
16 and in meeting the standards we thought they should meet.
17 We went over each one of them individually, and we reviewed
18 each one of them individually. We had the people who were
19 having problems in a special training course, the report
20 from Mr. Brown, the supervisor of operating training,
21 licensed operator training, that they were doing well, that
22 they were covering the things they had missed, and that he
23 felt they could pass the exam.

24 We had no problem with him from an attitude nor a
25 performance problem. People from the control room thought

1 he performed well, and we made the decision that he should
2 go up for the exam. That certainly was no guarantee he was
3 going to pass the exam, but we felt he had a good chance of
4 passing the exam, and we felt that with the retraining he
5 was going through at that time that he had a good chance of
6 passing the exam.

7 Q Well, he failed the exam. Did you recertify him
8 for the October exam?

9 A Yes, sir. I recertified him for the October exam.

10 Q If he failed the October exam would you recertify
11 him for the next exam?

12 A I would have to look at that, take a look at the
13 whole thing. Right now, as I remember, our draft
14 instruction says that we will automatically -- not
15 automatically, but we will give an operator a second chance
16 if he really shows he is trying to do things and trying to
17 learn it. But the third chance has to made, if he is to be
18 given any more than two chances, we will go to the office of
19 the president. So this would be his third, if we count the
20 April exam, and I do not know whether we count that or not
21 since it supposedly does not count.

22 But I would be very hesitant to send him up again,
23 but again, it would depend upon how he does. He is well
24 respected in the control room. I have talked to him
25 personally. He certainly has a super attitude. He is the

1 kind of guy you would want as an operator and the kind of
2 guy you want to pass if he has the requisite knowledge.

3 Q If the NRC examination was only advisory to you
4 rather than mandatory, would you allow Mr. H to operate the
5 reactor if he failed the NRC exam?

6 A No. He would have to, before I would allow him to
7 take it, he would have to take and pass a comprehensive exam
8 that I would make up myself -- that we would make up. I
9 have qualified operators that way all my life, and we would
10 have to take a tough exam that we made up for him, which is
11 how we recertify operators anyway. The recertification
12 process is giving an exam.

13 Q Do you think the way in which the Category T
14 makeup examinations were administered gives you confidence
15 that the people who passed the exam on makeup are competent
16 to work in the reactor?

17 A The recent exams just now or the previous?

18 Q I am speaking of the Category --

19 A Because we said we were going to give everyone
20 that exam agin.

21 Q Well, is it your -- how do you feel about the
22 competence of candidates with respect to Category T now
23 before you re-examine them? Do you think you have
24 confidence that they could serve in the control room based
25 on the Category T examinations that have been given so far?

1 A If they pass the NRC exam, yes, sir. The NRC exam
2 covers it in detail. I would assume that they passed the
3 exam successfully. The NRC has certified them as licensed
4 operators, and I would accept that.

5 Q You are saying that the NRC exam in October would
6 have covered Category T?

7 A Yes, sir.

8 Q Do you know how many operators failed the Kelly
9 Category T examination?

10 A No, sir, I do not.

11 Q The other area of inquiry which I would like to
12 take up is the attitude of the operators toward the
13 examination process. I think our first case chronologically
14 is the case of Mr. VV. Mr. VV is the person who submitted
15 his own work as -- I am sorry -- Mr. VV is the person who
16 submitted another person's work as his own in satisfaction
17 of an examination requirement, and this occurred in 1979,
18 which, as I recall, was a time before you came --

19 A Yes, sir.

20 Q -- On duty.

21 A I frankly do not even know Mr. VV.

22 Q All right. Did you ever have occasion to certify
23 Mr. VV?

24 A No, sir.

25 Q Are you familiar with the case of Mr. VV with the

1 situation which has been described in these documents with
2 respect to Mr. VV?

3 A Yes. I have read all the documents. I have not
4 discussed it personally with anyone, but I have read the
5 documents, so I know generally what happened in the case. I
6 have read the testimony that talks about it.

7 Q According to my notes, Mr. Crocker on page 4 of
8 his testimony -- I believe Mr. Crocker is a Staff witness --
9 said that VV should not have been recertified. Do you agree
10 with Mr. Crocker?

11 MR. BLAKE: Could we read more as to the reason
12 that Mr. Crocker gave for why he should not have been
13 recertified?

14 JUDGE MILHOLLIN: Of course, of course.

15 (Pause.)

16 BY JUDGE MILHOLLIN: (Resuming)

17 Q Mr. Hukill, I am asking you questions without
18 furnishing you documents. If I were a party, it would be
19 proper to object to such a procedure. If you feel
20 encumbered in your ability to answer at any time by not
21 having these documents, I hope you will let me know.

22 A Yes, sir.

23 Q Mr. Crocker says on page 4 that, "I think the
24 Licensee was in error to certify VV for license renewal.
25 According to the regulations, part of the certification is

1 that the applicant for whom the license is sought has a need
2 for the license in the performance of his duties."

3 And then the subsequent discussion is that if the
4 licensee had not intended to remove VV from license duties
5 because of a cheating incident, VV would not need the
6 license and the certificate was an error. On the other
7 hand, the certification for license renewal includes the
8 requirement that the applicant for license renewal has
9 discharged his license responsibilities competently and
10 safely. Involvement in the cheating incident certainly
11 would cast some doubt upon how competently VV had discharged
12 his duties.

13 Perhaps since this is a rather long statement, Mr.
14 Blake could furnish you with a copy of Mr. VV's testimony.

15 MR. BLAKE: Mr. Crocker's.

16 JUDGE MILHOLLIN: I am sorry. Mr. Crocker's
17 proposed testimony.

18 (Counsel hands document to witness.)

19 (Witness reviews document.)

20 BY JUDGE MILHOLLIN: (Resuming)

21 Q I might say the reason I am asking you this
22 question is because I would like to get a more complete
23 sense of your views toward the certification process which
24 you have -- about which you have testified.

25 A If you do not mind, Your Honor, I have to qualify

1 my answer that I am not intimately aware of everything that
2 went on in the VV incident. With what I am aware of I would
3 not have recertified him.

4 Q Do you think in light of that answer it would be
5 proper for you to alter his status now?

6 A He does not work for me, Your Honor. He is in
7 Unit 2.

8 Q I see. Well, then, my question would have to be
9 hypothetical. Do you think it would be proper for his
10 status to be altered in Unit 2?

11 A Again --

12 Q Or do you think there are other factors which
13 might influence that which you do not know about?

14 A From what I know of the incident, I would say his
15 license should be removed, but I do not know all the --
16 everything that happened. I have not talked to the
17 individual. I would not know him if I saw him on the
18 street. And from what I have read, I would say his license
19 ought to have been removed, but I do not know him.

20 Q Are you personally satisfied that G and H are
21 innocent of any cheating on the ATTS Category T makeup exams?

22 (Pause.)

23 A I find that hard to answer. I am not
24 categorically convinced that they were not involved in any
25 cheating. Again, I was not party to the investigation that

1 was done on that one. From what I have read, there is not
2 enough evidence to substantiate that they were cheating; and
3 therefore, you know, I cannot categorically deny or I cannot
4 categorically say that I believe they were not cheating; but
5 I do not think the evidence supports it right now.

6 (Pause.)

7 Q You have said that, or at least I infer from your
8 testimony that there was a problem on the part of operators
9 understanding that the NRC examination process was important
10 to evaluating their own competence, and that the training
11 program was also important to their competence.

12 Can you tell me more about why it is you think
13 they have that attitude which you, I think, inferred was
14 unacceptable in your opinion; that there was an attitude
15 problem which you undertook to change? Why do you think
16 they had that attitude problem?

17 A I think there are a number of reasons. Number one
18 was the bitterness on the part of a number of people when
19 the company agreed to put them all back through the process,
20 and that just started an embitterment against the NRC exam.
21 It is a traumatic experience to people. They felt it was
22 unfair to them. They were not involved in -- most of them
23 were not involved in the TMI-2 accident and felt that the
24 company had taken part of what is their life and livelihood
25 and changed it. So they had an immediate start of

1 embitterment on the NRC exam.

2 On the April exam they felt the questions on the
3 April exam were extremely difficult and were not directed at
4 what they needed to know as an operator -- that was a
5 general statement -- that it was a very difficult exam and
6 was far more theory than it was practical application to
7 them as operators.

8 I think those are probably the two main reasons.
9 And then the final blockbuster was when Mr. Denton came down
10 and said you are all going to retake the exams. And that
11 just, as far as I could tell from the people, just
12 immediately turned them totally against the exams and really
13 required a major effort on our part to rebuild the validity
14 of this exam and what this exam was really for.

15 Q The only other question I have concerns Mr.
16 Kelly. You decided to replace Mr. Kelly with ATTS. When
17 did you do that?

18 A I do not know the answer to that. I am not even
19 sure I was here when they made that decision.

20 Q Mr. Kelly administered the 1980 exams, isn't that
21 right, the 1980 requalification exams?

22 A Yes. That was before I got there.

23 Q That was before you arrived? Had he been replaced
24 when you arrived?

25 A I am not sure, Your Honor.

1 Q All right.

2 A The ATTS, the training department, would have made
3 that contract, and I was introduced to the ATTS people, and
4 I was told we were getting a different group, I think I was
5 told so we could get a different viewpoint. But I do not
6 know that. I think, as I remember, they said we wanted to
7 try somebody else to get a different viewpoint so we can see
8 from two different groups how we are doing. But I am not
9 sure of that.

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1 Q Are they under your supervision? That is, the
2 training department?

3 A No, sir, they are not. The training department
4 works for the vice president of nuclear assurance.

5 Q Is he at the same level you are in the
6 organization?

7 A Yes, sir, he is.

8 Q So if there were a conflict between training and
9 operations, where would it be resolved? At the level above
10 the two of you?

11 A No. Normally the conflicts between operations and
12 training are resolved at the Mr. Ross, Mr. Newton level.
13 They meet frequently to go over those types of items, what
14 is going to be in the training, what are we going to do for
15 the training.

16 If it can't be resolved at that level, it goes up
17 to the Mr. Toole, Dr. Knief level. Dr. Knief is the manager
18 of training for TMI-1 and 2. I believe that is his title.
19 Mr. Toole is the operations and maintenance director for
20 me.

21 Frequently, Mr. Herbein and I sit in on the
22 meetings. We probably talk training at least five days a
23 week, and we are very deeply involved in the training and
24 work very closely together. But if there is an issue that
25 cannot be resolved at the lower level, it will come up to us

1 and we will resolve it.

2 Q With respect to Mr. Kelly, you really do not have
3 any knowledge of the reasons for the change?

4 A No, sir, I do not have any knowledge of the
5 reasons for the change. I remember when they changed and I
6 remember it was at TDS. I met the people and I went down
7 there and talked to them, but I do not remember why we
8 changed.

9 JUDGE MILHOLLIN: I assume we can get that
10 information from another witness. So I will not pursue it
11 now.

12 BY JUDGE MILHOLLIN: (Resuming)

13 Q I think I asked you or perhaps Mr. Arnold whether
14 the details of the proposed category T examination would be
15 presented, and I take it you are not going to present that,
16 since your testimony has not included it, but that -- is it
17 your understanding that some other witnesses will present
18 that information?

19 A The details on the category T?

20 Q Yes.

21 A Yes, sir, I would assume that Mr. Newton or Dr.
22 Long would present that.

23 Q Very well.

24 JUDGE MILHOLLIN: I am sorry. Yes, Mr. Flake?

25 MR. BLAKE: It was only to -- I do not think Mr.

1 Hukill has been in on this discussion at all. In fact, we
2 are going to do it with additional direct for the training
3 witnesses.

4 JUDGE MILHOLLIN: All right. Unless there are
5 further questions for the witness -- are there further
6 questions for the witness?

7 MR. BLAKE: Judge Milhollin, before he leaves, I
8 do want to cure one problem. I listened carefully and I do
9 not think it was confusing in terms of your exchange with
10 Mr. Hukill, but our commitment to redo the category T has
11 now been done, and the results of those have not -- they are
12 not -- I do not know that we have the results yet, but I
13 know that they have been completed, and I think they had
14 been completed --

15 THE WITNESS: I was informed two days ago they
16 were completed.

17 MR. BLAKE: When your answers about the category T
18 and the makeups -- Mr. Hukill may well have been talking
19 into account these most recent re-category T's as a result
20 of the cheating incidents and the similarities which were
21 uncovered in the Trunk investigative report. So to the
22 extent that there was any confusion in your mind from those
23 answers, I would point out that that is the case. And the
24 witness may have had that on his mind in responding to your
25 questions.

1 JUDGE MILHOLLIN: I have the impression when the
2 witness was responding to my questions that the witness
3 understood that I was referring to the makeups on the
4 category T examination which occurred before the most recent
5 category T examination was given. And I assumed that the
6 witness had the same understanding.

7 THE WITNESS: Is this a question of --

8 BY JUDGE MILHOLLIN: (Resuming)

9 Q When I was asking about G and H, for example, and
10 their makeup category T's and the similarity of their
11 answers and the continuous failures of the makeup, I assume
12 that there was no ambiguity about my -- about which category
13 T examinations I was referring to in your mind; is that
14 correct?

15 A I am not sure right now.

16 MR. BLAKE: I maybe should not have raised it at
17 all.

18 THE WITNESS: The issue is, we are not satisfied
19 with the category T makeups that were given and we are
20 regiving the category T makeup exams which have just been
21 completed to the best of my knowledge, so that we can be
22 assured that everybody that does go up has completed the
23 category T makeup exams.

24 JUDGE MILHOLLIN: All right. I do not think there
25 was any confusion on this subject.

1 MR. BLAKE: Okay.

2 MR. ADLER: Excuse me. While we are on that
3 subject, I am not sure if I heard or not that they had
4 graded the most recent category T makeup exams. If they
5 have, I wonder if the parties could receive the results of
6 them.

7 JUDGE MILHOLLIN: While we are on that subject, I
8 might point out that I am still waiting for the attachment
9 to the chart which explains the pass-fail rate on previous
10 exams. I just thought you would like to know that I have
11 not forgotten about it.

12 MR. BLAKE: Nor have I, Judge Milhollin. I
13 indicated to you that we were doing it, but that it was not
14 an easy chore because of the numbers of makeups and sections
15 of the exams, and what it takes to go back through the
16 process.

17 JUDGE MILHOLLIN: Very well.

18 MR. BLAKE: I think the only remaining matter for
19 Mr. Hukill is the extent to which the sequestration order
20 which we have given him to read --

21 MS. SWARTZ: Excuse me. I have a couple of
22 follow-up questions based on the questions that you just
23 asked.

24 JUDGE MILHOLLIN: All right. I had asked whether
25 any party had questions.

1 MS. SWARTZ: I am sorry. I did not hear you.

2 JUDGE MILHOLLIN: All right. We will take those
3 questions and come back to the sequestration subject.

4 MS. SWARTZ: They are very brief.

5 CROSS ON THE SPECIAL MASTER'S EXAMINATION

6 BY MS. SWARTZ:

7 Q Do you know when the cheating by O and W on the
8 ATTS exam was discovered, approximately?

9 A I am not really sure. I am trying to remember the
10 investigative report. It seemed to me they admitted it that
11 Friday that they went down to see Mr. Stello, if I am not
12 mistaken.

13 Q Can you give me a month and a year?

14 A Yes. Well, Monday was July 27, and Friday was
15 when I went down.

16 Q Can you tell me when you certified Mr. O and Mr. W
17 to take the April 1981 exams, approximately?

18 A Late March or early April.

19 Q My last question has to do with your comment that
20 the operators were bitter in April or were bitter about the
21 NRC examination. Were they bitter against the company
22 volunteering them to take the NRC exam or were they bitter
23 against the NRC for coming up with this exam?

24 A I had better make that clear. They were bitter at
25 both. They were bitter at the company for having to retake

1 the exam that they would not have had to take, the operators
2 who were already qualified. They were bitter at the exam
3 because they thought it was a very unfair exam.

4 But I must include that the exam was made up of
5 material that we sent to the NRC to use. So there was a
6 bitterness to the company for what we sent them.

7 MS. SWARTZ: Thank you. That is all I have.

8 JUDGE MILHOLLIN: Sorry, Mr. Hukill. I have one
9 more question.

10 SPECIAL MASTER EXAMINATION -- RESUMED

11 BY JUDGE MILHOLLIN:

12 Q Did you ask either W or O on the way back to
13 Harrisburg why they cheated?

14 A No, sir. I did not ride with both O and W. I
15 rode with W, and he was not in much of a state to talk about
16 anything on the way back.

17 Q To your knowledge, has anyone in the company asked
18 either of those persons why they cheated on the exam? You
19 say that you didn't ask them. I take it you mean you never
20 asked them, is that right?

21 A I have never asked them, no, sir.

22 Q Do you know whether anyone else has asked them?

23 A I am trying to remember the interview in Mr.
24 Arnold's office and I do not think the question was asked.
25 I do not think anyone ever asked them why they cheated,

1 certainly not to my knowledge.

2 JUDGE MILHOLLIN: Thank you very much.

3 With respect to the sequestration matter, Mr.
4 Blake has said that he has provided you with a copy of the
5 order.

6 THE WITNESS: I gave it back, I think.

7 JUDGE MILHOLLIN: Do you have any questions about
8 it?

9 THE WITNESS: I guess, yes, sir. If the press
10 asks me any questions, can I answer them?

11 JUDGE MILHOLLIN: Yes.

12 THE WITNESS: As far as talking to any other
13 witnesses or anybody, I do not talk to anybody.

14 JUDGE MILHOLLIN: No prospective witnesses, that
15 is right.

16 THE WITNESS: As far as that means to me, that
17 means I do not talk to anybody. That is the way I
18 understood the order.

19 JUDGE MILHOLLIN: I think that is certainly a safe
20 way to look at the order, yes.

21 Thank you very much, Mr. Hukill. You are
22 excused.

23 THE WITNESS: Thank you.

24 (Witness excused.)

25 (Discussion of the record.)

1 JUDGE MILHOLLIN: I assume any action a party may
2 wish to take as a result of that order will not involve me.

3 MR. BLAKE: Judge Milhollin, on Licensee's behalf
4 I look forward to seeing it and reviewing it. When I have
5 seen it, I do not think there is any need for any action on
6 our behalf from what I think I heard.

7 I understand that the order that you issued that
8 went along with the stipulation, for example, constitutes
9 effectively a protective order because of the extent of
10 agreeing on protecting confidentiality which exists in the
11 stipulation itself and, for example, did not envision any
12 further order that we would request from you, even though
13 the Appeal Board in its order has referred to something
14 called a protective order.

15 MS. SWARTZ: Excuse me. Staff wonders if this is
16 a matter that we now have to bring before the Licensing
17 Board in order to get their concurrence or the Licensing
18 Board is going to take it?

19 JUDGE MILHOLLIN: I assume that the decision with
20 respect to the Licensing Board's involvement could be made
21 by the parties better after they see the order. So in the
22 interest of getting along with this proceeding, perhaps we
23 could just go to the witness.

24 MS. SWARTZ: Fine.

25 MR. BLAKE: Judge Milhollin, Licensee's next

1 witness is Mr. Michael J. Ross. Mr. Ross has previously
2 been sworn in this proceeding.

3 Whereupon,

4

MICHAEL J. ROSS

5 was recalled as a witness by Licensee and, having been
6 previously duly sworn, was examined and testified as follows:

7

DIRECT EXAMINATION

8

BY MR. BLAKE:

9

Q Mr. Ross, I show you a copy of a document
10 entitled, "Licensee's Testimony of Michael J. Ross," dated
11 11-03-81, consisting of some nine pages of text, and ask
12 whether or not this document was prepared by you or under
13 your supervision?

14

A It was.

15

Q Mr. Ross, are there any corrections that you would
16 make to this document?

17

A I have no corrections.

18

MR. BLAKE: Judge Milhollin, I ask that the
19 document identified as "Licensee's Testimony of Michael J.
20 Ross," dated 11-3-81, be physically incorporated into the
21 record.

22

I withdraw that request for the moment.

23

BY MR. BLAKE: (Resuming)

24

Q Mr. Ross, do you adopt this document as your
25 testimony in this proceeding?

1 A I do.

2 MR. BLAKE: Judge Milhollin, I ask that the
3 document entitled, "Licensee's Testimony of Michael J.
4 Ross," dated 11-03-81, consisting of some nine pages, be
5 physically incorporated into the transcript just as though
6 read. I have provided a copy to the Court Reporter for this
7 purpose.

8 JUDGE MILHOLLIN: It will be so incorporated.

9 (The document referred to follows:)

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LIC 11-03-81

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
METROPOLITAN EDISON COMPANY)	Docket No. 50-289 SP
)	(Restart)
(Three Mile Island Nuclear)	
Station, Unit No. 1))	

LICENSEE'S TESTIMONY OF

MICHAEL J. ROSS

I. Nature of Testimony

My name is Michael J. Ross. I am the Manager of Plant Operations at TMI-1. I testified on a number of previous occasions in the TMI-1 restart proceedings, as reflected in the August 27, 1981 Partial Initial Decision (PID) at ¶ 155. My professional qualifications are summarized at PID ¶ 154.

Today, I am here to testify on several subjects. First, I will discuss my participation in the April, 1981 NRC examinations, and my involvement with the NRC examiners during the administration of those examinations. I will also describe my first awareness of the NRC's concern that cheating may have taken place on the April exams, and my views on the attitude of the operators on my staff. Finally, I will review my role in the operator certification process, and my views as to the best criteria and procedure to utilize to assess the integrity of operator candidates.

II. April, 1981 NRC Examinations

The April, 1981 NRC written examinations were administered over a four day period (April 21-24). "Set A" of exams, RO and SRO, were given on the first two days, followed by "set B" of exams, RO and SRO, on the next two days. I took the "set A" exams, RO and SRO. During the time I took the exams I was not aware of any cheating taking place in the non-smokers room in which I sat; nor did I subsequently hear rumors of cheating until the NRC investigation began in July. I have

read the NRC's investigative reports on cheating and rumors of cheating. I have no independent knowledge of the incidents of cheating and rumors described in these reports.

In order for the NRC to be sure that their exam questions utilize the terminology in use at the particular facility for which the examinees are seeking a license, and that procedures and hardware have not recently been modified, i.e., after the exam was written, it is necessary for an individual very familiar with the facility to review the NRC examinations. In my experience, this means that a senior licensed individual spends a number of hours with an NRC examiner (or examiners) reading and discussing the examinations and the examination keys. This review ordinarily takes place at the time the exams are given, to ensure proper safeguarding of the exam questions and answers.

In April, 1981, every individual with a detailed technical familiarity of the materials covered by the examinations was taking the exams. This is very unusual. Ordinarily, when an individual or a group of individuals takes the NRC license exams, there are other individuals in Training and in Operations who already have an NRC license. However, because everyone at TMI-1 was required to be re-licensed, no "extra" personnel were available upon whom the NRC examiners could most legitimately rely to review the exam questions and answers. As a result, after I took the exams on the first two days they were administered, I spent approximately three to four hours on

the following two days reviewing with an NRC examiner, Mr. Bruce Wilson, both sets of RO and SRO exams, i.e., the four different exams given.

Mr. Wilson and I, along with two operator training instructors who had also taken the first set of exams, met in an instructor's office on both of the days that we reviewed the exams. The office was located immediately next to the smoker's examination room. Other NRC personnel may have been present at times during these review sessions, although I do not recall anybody else being continuously present.

I do not believe that the practice of NRC staff meeting with Licensee senior technical people during the NRC examinations in any manner compromises the exam process; to the contrary, failing to review the exams with individuals intimately familiar with the facility could lead to incorrect answer keys, and improperly phrased questions. While I agree that in the future NRC (and Company-administered) exams should be 100% proctored, I also believe that NRC staff should continue to meet with Company personnel to review the exams. Preferably, this process should occur in time for the examiners to inform examinees if questions are improperly phrased. This was of course not possible with respect to "set A" of the April exams, because no Company person with sufficient detailed knowledge was available.

III. First Knowledge of Cheating

The first awareness that I had that there was a potential problem, of some unknown kind, with regard to the NRC examinations was when Mr. Donald Haverkamp, one of the onsite regional I&E inspectors, called me and asked me who, among the Operations staff, smoked. I cannot recall when this conversation took place, although it was before the information regarding operators O and W was discussed with GPU Nuclear personnel on July 27. Because Mr. Haverkamp's question was rather unusual, and of seemingly no importance, I asked him why he was asking me this question. Mr. Haverkamp informed me that there could be a potential problem with the April NRC exams, although he did not know the details. He asked me not to discuss his call with anyone. I did not discuss it.

The first knowledge I had of the specific allegations of cheating by operators O and W occurred on July 27 when I had a brief conversation with Mr. Hukill and operator W concerning the allegations. On July 28, I was interviewed by the I&E investigators at their site office. At that time, I examined the suspect examinations. While it was possible, in my mind, that examination answers could be developed in study sessions, and that individuals O and W conceivably could have memorized a great deal of material, I was skeptical in my own mind that the number of identical answers on these exams could be the product of anything but cheating. I was shocked and demoralized by this realization.

IV. Attitude of Operators

In my 11 years of experience at TMI, and in working with licensed operators, I have over time heard rumors concerning just about every subject affecting our lives, from work-related tales to rumors about individuals' personal lives. I cannot say that I have never heard rumors about cheating, although I can say that a story must have made so little sense, by itself, that it seemed most reasonable to ignore it. Rumors about an individual's inability to do something usually sounds like someone is poking fun at another individual's shortcomings, a kind of teasing which I believe goes on in every work and home environment. I can say without equivocation that I do not and have not in the past condoned cheating; nor did I ever suspect that cheating had actually taken place on any exam. In retrospect, I feel responsible for not stating my views on this subject more expressly to my staff. However, I can honestly say that it never even occurred to me that this basic principle needed to be specifically focused upon by me, or by upper management.

At this juncture, it is clear to me that the TMI-1 operators are bitter about the requirement imposed on them to repeatedly take the NRC exams. In addition, having been previously licensed and operated the plant, some of the operators question the exam's ability to test their actual, extensive capabilities. There is no question in my mind that TMI-1 management, including myself, must emphasize and re-emphasize to the operators the importance the Company places

on the NRC examination process. While the NRC written exams are only one part of the licensing process, which is itself one part of the process TMI-1 management uses to determine the qualification of operators from both a competency and attitude standpoint, it is a necessary and integral part of the process. Moreover, I believe that perhaps the most valuable benefit derived from the NRC examination (or re-examination) process is the enormous amount of studying which such a comprehensive written (and oral) examination causes every operator candidate to undertake. Thus, even though it may seem unfair for individuals who did not cheat to take comprehensive exams three times, rather than once as others are required to do, there is an obvious educational benefit in this process. But I do think that it is difficult for anyone who is repeatedly subject to complete comprehensive exams to recognize, at the time he is studying for the exams, that he is really profiting from that process. Nevertheless, I believe that the TMI-1 operators cannot help but recognize this fact when the very difficult, rigorous process is over, and the pressure of exam-taking has passed.

While I must acknowledge, then, that many of the TMI-1 operators feel unfairly subject to very imposing requirements in order for them to maintain licenses which, in their minds, they had already successfully obtained, I do not believe that the operators think that this justifies misconduct, such as cheating, in order to satisfy these requirements. I believe that it is clear in their minds, from my discussions with them,

from the actions taken by management in response to the cheating by operators O and W, and from meetings and correspondence with senior management, such as Mr. Hukill, that cheating on NRC and Company administered exams is unacceptable behavior. I also believe that the TMI-1 operators are competent and ethical individuals. They recognize that I have always emphasized proper conduct on the job. My emphasis has always been on on-line duties; perhaps for this reason I have focused insufficient attention on operators' conduct in other aspects of their job, such as in training and testing. To the extent that my focus has been too narrow, I recognize that on-line responsibilities and conduct can no longer be my only focus.

V. Operator Certification

While Mr. Hukill's testimony describes the certification process generally, I would like to focus on my input to Mr. Hukill's decision to certify licensed operators to take the NRC examinations, or to be relicensed pursuant to the NRC's regulations on requalification of licensed operators.

We do not have a specific written procedure to certify licensed operators and candidates, although I understand that Mr. Hukill intends to institute such a procedure in the near future. Without regard, however, to whether the procedure is written down, I think it is fair to say that the factors which go into certifying an operator are (i) the individual's performance on the last comprehensive examinations; (ii) the individual's performance overall while in training over the past year; (iii) on-the-job performance,

i.e., competence while on shift; (iv) the degree to which the individual is applying himself; and (v) the individual's attitude in general towards his job and his responsibilities as a licensed operator. I participate in the certification process by monitoring the performance of each individual on my staff, and relaying to Mr. Hukill my views with regard to each individual's on-the-job performance, the degree to which I believe that individual is applying himself, and my conclusions about each individual's attitude. (While I do not believe I have ever consciously looked at each person's "integrity", whether an individual is honest, admits his mistakes, and generally appears to have a sense of pride about doing his job right are factors which I evaluate.) My office is located in the plant, near the control room. I work with all of these individuals on a regular basis. In the course of a year, I get a fairly clear picture of the capabilities and weaknesses of my staff.

Competency can be determined fairly objectively. In addition to an individual's performance on exams and in training, I can observe, along with my shift supervisors, each individual's performance on-shift, including an operator's willingness to seek assistance when needed, his ability to do more than one thing at a time -- an absolutely necessary capability for an operator to have, his ability to deal with stress (e.g., multiple demands), to sort out priorities and to work with the auxiliary operators and individuals senior to him. This is the kind of information which I evaluate and report to Mr. Hukill during the certification process.

I also very subjectively evaluate each operator's behavior, and the attitude the individual appears to display about his work. Included in this evaluation is the degree to which I believe the person acts responsibly and maturely, his ability to act independently when necessary, but to seek assistance when appropriate, and his honesty and conscientiousness. I discuss with Mr. Hukill my personal views on these, more impressionistic, questions. In addition, the Training Department discusses with Mr. Hukill its views of operators' competency, attitude and integrity, based on their work with the operators.

I believe that both the objective and subjective input I give, and Training gives, to senior management in the certification process are important. While I support formalization of this process by adoption of a certification procedure, I do not believe that the subjective evaluation I make can or should be reduced to a rote procedure.

1 MR. BLAKE: I have no additional direct of Mr.
2 Ross, and he is available for cross examination.

3 CROSS EXAMINATION

4 BY MS. BRADFORD:

5 Q Good afternoon, Mr. Ross.

6 A Hi.

7 Q Mr. Ross, how long have you been employed by Met
8 Ed?

9 A I have been employed by Met Ed approximately 13
10 years.

11 Q And you are the manager of operations for Unit 1,
12 is that correct?

13 A Yes, ma'am, that is correct.

14 Q How long have you held that position?

15 A Since 1978.

16 Q When did you first -- excuse me. Are you licensed
17 as an SRC?

18 A I am.

19 Q When did you first obtain your SRC license?

20 A I do not have the exact date, but it was the very
21 first licenses at Three Mile Island. I believe it was 1973.

22

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1 Q Did you take the NRC RO and SRO exams in April of
2 1981?

3 A I did.

4 Q Would you characterize that exam as a difficult
5 exam?

6 A Yes, I would.

7 Q It is my understanding that under normal
8 circumstances to be licensed the licensing exam is a
9 one-time thing. I mean, you take the license exam and then
10 you have your license. Is that true?

11 A That is correct.

12 Q Would you say that the April 1981 exam was more
13 difficult than the exam you took where you -- when you first
14 obtained your SRO license?

15 A Of course, it is a personal opinion. But I feel
16 there was a little more degree of difficulty in the April
17 exam.

18 Q Do you believe it is the general impression among
19 the operators at TMI that this was a difficult exam?

20 A Yes, I do.

21 Q Was this because there were some unexpected items
22 covered?

23 A I do not know what you mean by unexpected items.

24 Q The exam for 1980 -- April of '81, did that
25 contain a great many questions from the OARP?

1 A I think it did contain some questions from the
2 GARP program.

3 Q Were you expecting that -- those questions?

4 A It is hard to say that you are expecting any
5 question. We try to be prepared in all areas. We thought
6 that the exam was difficult. It was very extensive in a lot
7 of areas, very specific.

8 Q Were many of the questions on that exam the type
9 that might require memorized answers?

10 MR. BLAKE: Objection. I do not understand where
11 any of these questions derive from Mr. Ross' direct
12 testimony here. I do not know how far you are going to go
13 in this line, Ms. Bradford. But certainly this witness has
14 not been put on to describe the technical difficulties
15 associated with the NRC's exam in April or its adequacy or
16 substantive worth.

17 There is nothing in his testimony, I do not
18 believe, that addresses that subject.

19 JUDGE MILHOLLIN: Mr. Blake, are you going to
20 exist that the cross-examination be limited to the scope of
21 the direct?

22 MR. BLAKE: No. And I think I have been terribly
23 liberal. But I also have my mind on trying to get along
24 with the witnesses, and examination the extent it is far
25 afield of direct or maybe in this case even compounded by

1 the fact that questions may be headed -- I do not know where
2 Ms. Bradford is headed -- toward the substantive worth of
3 the exam I would regard as objectionable. And I raise that
4 at least as a caution at this point.

5 JUDGE MILHOLLIN: Well, I see her going in the
6 direction of determining whether the examination could be
7 defeated by memorization or some other device. It may --
8 that direction may not be within the bounds of the direct
9 testimony.

10 But since there is the possibility that she can
11 arrange for that obstacle to be overcome at a later time,
12 then I really question whether it is prudent or useful to
13 insist on staying within the bounds now.

14 MR. BLAKE: No, and I do not think that is the
15 case. You have the benefit of a cross-examination plan,
16 which I do not.

17 JUDGE MILHOLLIN: Yes.

18 MR. BLAKE: That gives you considerable
19 intelligence over where she is headed that I do not have.
20 But to the extent that we are headed toward an area which is
21 within generally what we are here to talk about, I am not
22 going to object. To the extent we are headed in some other
23 direction, I raise that as a caution at this point.

24 BY MS. BRADFORD: (Resuming)

25 Q Mr. Ross, would you like me to repeat that

1 question?

2 A Would you, please.

3 Q Were many of the questions the type which required
4 memorized answers?

5 A Again, I feel that is strictly opinion. I do not
6 feel that many of them were the type that did require
7 memorized answers. I also do not feel many of the NRC exams
8 require memorized answers.

9 Q On page 3 of your testimony -- excuse me, it is
10 page 2. I am sorry. In the last full paragraph, at the
11 beginning of that paragraph you have said that every
12 individual with a detailed technical familiarity of the
13 materials covered in the examinations was taking the exams,
14 and this was very unusual; is that correct?

15 A Yes, ma'am, that is correct.

16 Q Were any of the individuals taking the April '81
17 exam new candidates for a license?

18 A Yes, they were.

19 Q How many of them were new candidates, if you
20 know?

21 A I would have to look at my listing and give you an
22 accurate count. But there were some new candidates.

23 Q Okay. In your experience, how many candidates did
24 TMI usually sit for an NRC exam?

25 A That varied. Normally, our class size were small,

1 three or four people, that type of arrangement.

2 Q Would you explain to me the process? During the
3 training program when TMI certifies people for the exam, do
4 you normally wait until you have a group before you notify
5 the NRC that they are ready, that you would like to sit them
6 for the exam?

7 A Normally that is the case. The NRC really does
8 not like to come in just to give a single exam. We try to
9 group our people and have an exam where there is three or
10 four people available for examination.

11 Q Are there ever -- let me ask you this. Is it --
12 during your experience at TMI, have you reviewed exams
13 before, that is the answers and the keys?

14 A Yes, ma'am, I have.

15 Q And are you normally the person who would do this
16 on site?

17 A Yes, ma'am, I am one of the normal people who
18 would do that.

19 Q And there are other people who normally take on
20 that responsibility?

21 A That is correct.

22 Q How many in the 13 years that you have been at
23 TMI? How many of these reviews would you say that you have
24 done?

25 A I would guess four or five exams I have reviewed.

1 I have only reviewed exams since I became a supervisor of
2 operations or manager of operations.

3 Q In your prior experience of reviewing exams, how
4 long would that normally take, on the average?

5 A Well, that varied. It varied on the type of exam
6 that was being given. A couple of hours or an hour and a
7 half is not an unusual amount of time.

8 Q Does that -- would you say that differs with the
9 number of people who are sitting for the exam?

10 A No, I do not feel the number of people sitting for
11 the exam has any bearing on that unless there is more -- a
12 number of exams given, different types of exams.

13 Q You mean more sections within the exam? I do not
14 quite understand.

15 A No, ma'am. The exam sections are fixed. It is a
16 prescribed exam. What I meant is if there is a senior exam
17 and a reactor operator's exam, or there were two different
18 reactor operator exams given, it would take more time
19 because you would be giving more exams.

20 Q I see. And if you had, say, three or four
21 candidates, would it be the normal thing to have more than
22 one exam?

23 A You might. You may be giving two reactor operator
24 exams and two senior reactor operator exams at the same
25 time.

1 (Pause.)

2 Q In April of '81, which exam did you take, the A or
3 the B?

4 A I am not sure what letter it was. It was the
5 first set of exams taken. I believe that was the A.

6 Q Who was the -- was the exam that you took, was
7 that exam proctored?

8 A Yes, it was.

9 Q Who were the proctors for that exam?

10 A We are talking the April exam now?

11 Q Yes, sir.

12 A The proctors that were at Three Mile Island was a
13 Mr. Bruce Wilson and a Mr. Rich Maines, I think it is,
14 M-a-i-n-e-s.

15 Q Were there any other proctors from the company?

16 A From the company? No.

17 Q Were there any other proctors who were NRC
18 proctors?

19 A Yes. Sometimes during -- sometimes during that
20 exam the I&E inspectors onsite acted as proctors.

21 Q And was that the case during the A exam in April
22 of '81?

23 A My recollection is that some time during that exam
24 they did act as proctors.

25 Q Would you say there was 100 percent proctoring of

1 the exam which you took?

2 A I would say there was 99.7 proctoring.

3 Q That is close. Did the examinees talk to the
4 proctor during the exam?

5 A They may have, to ask a question or ask for a
6 clarification or something like that, or ask permission to
7 leave the room.

8 Q Did you talk to the proctor during the exam?

9 A Yes, I did.

10 Q For what reason?

11 A I believe I asked a question on a particular
12 section of the exam.

13 Q Did the NRC provide you with paper for the exam,
14 answer sheets?

15 A For the April exam they did not.

16 Q Did you bring in your own paper?

17 A No, ma'am. The paper was provided by the training
18 department.

19 Q I see. Was it in tablet form?

20 A Yes, it was.

21 Q As you completed each piece of paper, did you tear
22 off the sheet or leave it on the tablet or --

23 A I tore off each sheet.

24 Q And were you instructed to put it face down on the
25 table?

1 A I do not recollect, but I did. I assume we were
2 instructed.

3 Q Did you ever leave them so that they would be
4 visible to another exam-taker?

5 A Not knowingly.

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- 1 Q But you could have, is that correct?
- 2 A I do not recollect doing it. Anything is
3 possible, I guess.
- 4 Q Were you called out of the room while you were
5 taking an exam?
- 6 A I am told I was once. I vaguely recollect it.
- 7 Q Do you recollect the reason that you were called
8 out?
- 9 A Yes. I had a question on the way a particular
10 question was phrased, and the question revolved around
11 something, is this system at TMI and is it functional now or
12 something like that. That is all it was. It was less than
13 five seconds or eight seconds worth of conversation.
- 14 Q Do you think it is appropriate for someone to give
15 an examinee an opportunity to change an exam question while
16 the person is actually taking the exam?
- 17 A To give an examinee?
- 18 Q Yes.
- 19 A I think it is appropriate to change the questions
20 if it is not specific or if the examinees would draw
21 different meanings from it from the same question. I
22 definitely think it is appropriate to change the question.
- 23 Q But do you think it is appropriate to use an
24 examinee for that purpose?
- 25 A It depends on how they are used. If the examinee

1 has recommended a question, definitely not.

2 JUDGE MILHOLLIN: Ms. Bradford, I am reluctant to
3 interrupt you. The response to your question of whether Mr.
4 Ross left the room to receive a question in my mind was very
5 difficult for me to understand. Perhaps you understand it
6 and everyone else here understands it but me. But since it
7 is important for me to understand it, I would like for the
8 witness to elaborate on that if possible.

9 First of all, for what purpose was the question
10 asked, this question that you were asked outside the
11 examination room when you were drawn out of the room?

12 THE WITNESS: Let me just say, Judge Milhollin,
13 when I was drawn out of the room I was standing in the
14 doorway of the room, never really left the room. The
15 purpose of the question, as near as I can get the drift from
16 the examiner, was he was asked something and he was told
17 this particular system did not exist; so he was concerned
18 that he had a question that would come out with three or
19 four different answers.

20 JUDGE MILHOLLIN: You mean the person who asked
21 you the question was the examiner?

22 THE WITNESS: Yes, sir.

23 JUDGE MILHOLLIN: And he asked you because someone
24 else had asked him the question?

25 THE WITNESS: Evidently somebody else had told the

1 examiner geez, we don't have this system, or it is halfway
2 functional, and you have asked us if it is functional. I do
3 not even remember the specifics of it, but it was something
4 along those lines. It was a simple one or two-word answer,
5 yes, we have that system, yes, it is functional, or
6 something like that.

7 JUDGE MILHOLLIN: Is that as much as you can tell
8 me about it?

9 THE WITNESS: That is as much as I remember, sir.

10 JUDGE MILHOLLIN: All right.

11 BY MS. BRADFORD: (Resuming)

12 Q Did you take the October exams, the most recent
13 set of exams?

14 A Yes, I did.

15 Q Would you say in your opinion it as more or less
16 difficult than the April exam?

17 A Again, that is an opinionated answer, and a lot of
18 it depends on what your preparation was. I felt the reactor
19 operator exams were a little better written, perhaps easier
20 for me; the senior reactor operator exams were harder, even
21 harder than the last months.

22 JUDGE MILHOLLIN: Do you mean in October than in
23 April?

24 THE WITNESS: I mean in October, yes, sir.

25 BY MS. BRADFORD: (Resuming)

1 Q Would you know what the general impression was
2 regarding the exam's difficulty; that is, the most recent
3 one?

4 MR. BLAKE: The general impression, was that the
5 question? General impression of Mr. Ross?

6 MS. BRADFORD: Of the other operators. Excuse me.

7 THE WITNESS: I guess I think they shared my views
8 on that exam. It was their opinion also.

9 BY MS. BRADFORD: (Resuming)

10 Q That is, that the RO was slightly easier, and the
11 SRO was somewhat more difficult.

12 A That is correct.

13 Q In this most recent exam did examinees speak to
14 the proctors?

15 A I am sure they did.

16 Q For what reason?

17 A The same things. To ask questions, to ask for
18 clarification, request permission to leave the room.

19 Q And on this most recent exam were you issued
20 tablet paper or were you issued tablet paper in the same way
21 as you were in April?

22 A We were issued tablet paper, but the paper was
23 just used with NRC letterheads on it.

24 Q I see. Would you say that the seating
25 arrangements for this most recent exam was the same as the

1 April exam?

2 A I do not understand what you mean by "the same."
3 We were in a much bigger room this time.

4 Q Were you sitting two candidates to a table?

5 A No, ma'am. There was one candidate to a table.

6 JUDGE MILHOLLIN: Ms. Bradford, we are going to
7 break in a minute. Why don't you try to conclude whatever
8 line of cross examination you are on, and then we will break
9 unless that is inconvenient for you.

10 MS. BRADFORD: No. That is okay.

11 BY MS. BRADFORD: (Resuming)

12 Q During the April exam can you recall what the
13 seating arrangements were as far as how many candidates per
14 table?

15 A I think the maximum to any one table was two
16 people. There were some one-person tables in my
17 recollection.

18 Q And on the October exam was the same thing true?

19 A The October exam stated that there was a single
20 person to each table.

21 MS. BRADFORD: This is a good time for us to
22 break, Judge Milhollin.

23 JUDGE MILHOLLIN: Mr. Ross, are you familiar with
24 the sequestration order?

25 THE WITNESS: I would say vaguely, sir. I am a

1 little familiar with it, yes. I have not seen it in writing
2 yet.

3 JUDGE MILHOLLIN: Do you have any questions about
4 it?

5 THE WITNESS: No, sir.

6 JUDGE MILHOLLIN: Well, I will assume Mr. Blake
7 will discuss that matter with you when we adjourn, and that
8 if you have any questions, he will answer them, or if he
9 cannot, he will forward them to me.

10 So we will adjourn until tomorrow morning at
11 9:00. We meet at the Heritage Room in the morning.

12 (Whereupon, at 5:44 p.m., the hearing was
13 recessed, to be reconvened at 9:00 a.m., the following day,
14 Saturday, November 14, 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 13, 1981

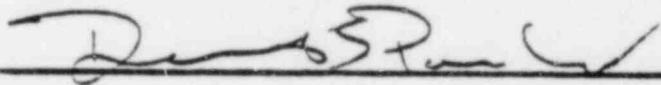
Docket Number: 50-289 (Restart)

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)