

ORIGINAL  
UNITED STATES  
NUCLEAR REGULATORY COMMISSION

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IN THE MATTER OF:

METROPOLITAN EDISON COMPANY  
TMI STATION UNIT 1

DOCKET NO:

50-289-SP

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

- - -

In the Matter of: ]  
METROPOLITAN EDISON COMPANY ] Docket No. 50-289SP  
(Three Mile Island Nuclear Station, ] (Restart Remand on  
Unit No. 1) ] Management)  
]

Room 156  
Main Capitol Building  
Harrisburg, Pennsylvania

Thursday, November 15, 1984

The hearing in the above-entitled matter was convened,  
pursuant to notice, at 1:30 p.m.

BEFORE:

- JUDGE IVAN W. SMITH  
Chairman, Atomic Safety and Licensing Board
- JUDGE SHELDON J. WOLFE  
Member, Atomic Safety and Licensing Board
- JUDGE GUSTAVE A. LINENBERGER, JR.  
Member, Atomic Safety and Licensing Board

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## 1 APPEARANCES:

2 On behalf of the Licensee:

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23 On behalf of the Commonwealth of Pennsylvania:

24 THOMAS Y. AU, Esquire  
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Department of Environmental Resources  
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C O N T E N T S

<u>WITNESSES</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u>	<u>RE CROSS</u>
Thomas Leroy Van Witbeck				
By Mr. Blake	28260		28285	
By Ms. Bernabei		28262	28289	
By Mr. Au		28274		
By Ms. Finkelstein		28275	28293	
Herman M. Dieckamp				
By Mr. Blake	28302			
By Mr. Au		28325		
By Mr. Goldberg		28343		
By Ms. Bernabei		28379		
<u>DOCUMENTS INSERTED</u>				
Prefiled Testimony of Thomas Leroy Van Witbeck			(Fls. page 28261)	
Prefiled Testimony of Herman M. Dieckamp			(Fls. page 28316)	
Afternoon Recess		28300		

E X H I B I T S

<u>NUMBER</u>	<u>FOR IDENTIFICATION</u>	<u>IN EVIDENCE</u>
TMIA Mailgram Exhibit 3	28391	--
TMIA Mailgram Exhibit 4	28397	--
TMIA Mailgram Exhibit 5	28414	--

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P R O C E E D I N G S

JUDGE SMITH: Good morning.

Last night, after we went off the record, we had a discussion about this morning's schedule. We recognize that Mr. Van Witbeck would be the lead-off witness, and it is unlikely that he would occupy very much of the day.

We learned that two other witnesses won't be available except for Mr. Dieckamp. The Board proposed that Mr. Dieckamp testify following Mr. Van Witbeck.

Ms. Bernabei has objected to that, stating that it is unfair. She was led to believe that she would not be required to cross-examine Mr. Dieckamp until next week.

We warned her that, nevertheless, we may require that we proceed with Mr. Dieckamp. We assured Ms. Bernabei she could make her objections this morning on the record.

I propose what we do, before you comment, that we go ahead with Mr. Van Witbeck and then if, as we have predicted, his testimony is over in short order, we take a break until after lunch and then proceed with Mr. Dieckamp, giving you an additional opportunity to organize your cross-examination.

MS. BERNABEI: Our objections would remain, and I would like to state them at this time. First of all, the reason that we are here in Harrisburg with an open hearing schedule is largely because of the licensee's insistence that we start these hearings on the 14th.

1 Last night, I reviewed the chronology of how these  
 2 hearings came to be scheduled for the 14th in lieu of the 15th  
 3 and some of the events that have led us to having this hearing  
 4 schedule.

5 First of all, after a prehearing conference that was  
 6 held on September 17, the Board said the hearing would commence  
 7 around November 15, after having granted an extension due to  
 8 licensee's failure to answer TMIA's discovery request within  
 9 the accorded time period.

10 TMIA, during the course of discovery, noticed and  
 11 subpoenaed Mr. Zebroski for a deposition to take place on  
 12 November 13.

13 The Board modified that subpoena, and stated that since  
 14 licensees objected to a subpoena and deposition on the night  
 15 of the 13th, the eve before the hearing, we would have to do a  
 16 telephone deposition, which disadvantaged us in deposing  
 17 Mr. Zebroski.

18 Then, with the hearing set for the period of November 14  
 19 through 16, the licensee proposed three witnesses, and I have  
 20 the letter from Mr. Blake to the parties indicating when the  
 21 witnesses would appear.

22 The letter to the Board at the same time the prefiled  
 23 testimony was filed states explicitly that there would be at  
 24 the most three witnesses for this week.

25 It also suggested that perhaps because of the length of



1 Mr. Lowe and Mr. Zebroski's testimony that Mr. Van Witbeck  
2 would not appear this week but the following week.

3 In any case, and I'll read from the last sentence of the  
4 letter, "Mr. Dieckamp will follow the other three licensee  
5 witnesses, either as the first witness on November 19 or  
6 following Mr. Van Witbeck's appearance on that date."

7 Subsequent to receiving this letter, I had several  
8 conversations with Mr. Blake in which he asked me about my  
9 length of cross-examination of Mr. Lowe and Mr. Zebroski, and  
10 specifically in order to determine whether or not Mr. Van  
11 Witbeck -- not Mr. Dieckamp, Mr. Van Witbeck -- would have  
12 enough time to testify in between Mr. Lowe and Mr. Zebroski.

13 I told Mr. Blake that from my estimation of my  
14 cross-examination, that wouldn't be possible. At no time  
15 Mr. Blake represent to me that they intended to call Mr.  
16 Dieckamp if there was extra time.

17 Last Friday, November 9, the company basically demanded  
18 that we have a prehearing conference in order to determine  
19 what TMIA witnesses would be called.

20 We held, over TMIA's objections, a prehearing conference,  
21 about five hours on the afternoon of November 13, during the  
22 same time that licensee said that we could not -- or during  
23 the period of time close to the time we could not have  
24 Mr. Zebroski's deposition because it would impinge upon the  
25 Board and the parties' preparation time.

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1           After spending five hours of prehearing conference that  
2 was demanded primarily so that we would not waste hearing time--  
3 hearing time which was very scarce -- we then find ourselves in  
4 Harrisburg for a hearing on Wednesday.

5           At this point, we find not only do we have too much  
6 hearing time, but we don't have enough witnesses to fill up the  
7 hearing time. That is after cutting into TMIA's preparation  
8 time on the prior day to hold a five-hour prehearing conference.

9           We feel we have been prejudiced, one, by the Board  
10 pushing the date from the 15th to November 14th; by instruc-  
11 tions to TMIA that we could not take a deposition on November  
12 13th, and then, despite this rationale that it would cut into  
13 and hurt parties' and the Board's preparation time, allowing a  
14 prehearing conference for five hours on November 13 on matters  
15 that could well be handled in this hearing room.

16           We would also note that the Appeal Board has emphasized  
17 that it is Mr. Dieckamp's credibility and integrity which is at  
18 stake in this hearing.

19           The matter was remanded to this Board because, in part,  
20 Mr. Dieckamp had not been questioned and there had not been  
21 adequate exploration of this issue.

22           Judge Smith, when you said yesterday you had doubts  
23 about TMIA's ability to develop this record given that we  
24 could not be prepared to question Mr. Dieckamp, I would point  
25 out to the Board that it is going to become increasingly



1   apparent during this hearing that TMIA has the burden of  
2   developing the record in this case, because with Mr. Lowe and  
3   with all the other witnesses, it will be primarily TMIA which  
4   cross-examines the witness.

5           It is our burden, which we have taken seriously. I  
6   would also point out to the Board that it is not we who have  
7   demanded and obtained extensions to respond to discovery or to  
8   prepare for prehearing conferences.

9           We have in an expeditious manner responded to all  
10   interrogatory requests and have been prepared at every prehear-  
11   ing conference this Board has held.

12           I would also say that it is each party's responsibility  
13   to inform the parties and the Board of the order of witnesses.  
14   Given the licensee's knowledge of the length of the witness'  
15   testimony and having some information at least from us as to  
16   our length of cross-examination, it appears that the licensee  
17   should have known how long these three witnesses -- Mr. Lowe,  
18   Mr. Van Witbeck, and Mr. Zebroski -- would take.

19           In terms of having adequate preparation time for Mr.  
20   Dieckamp, I would remind the Board that we still at this point  
21   do not have the joint exhibit which will form part of the basis  
22   of our examination for Mr. Dieckamp.

23           Licensee has not provided us with a copy here in  
24   Harrisburg. We were not delivered a copy in Washington. I am  
25   willing to attribute usual slip-ups in time, but we do not have

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1 the documents to question Mr. Dieckamp.

2 Secondly, other documents that are not included within  
3 that joint stipulation we do not have in Harrisburg. Therefore,  
4 we are prejudiced to the extent that we do not have the  
5 documents available or the basis on which to question Mr.  
6 Dieckamp.

7 Lastly, it must be obvious to the Board as it is to us:  
8 Mr. Dieckamp is licensee's central witness and the person whom  
9 we are primarily concerned with.

10 We will attempt to question Mr. Dieckamp on several  
11 discrete matters for which we do have adequate documentation.  
12 However, we will not be able to examine him as we would have  
13 done, and we believe we are severely prejudiced.

14 As an alternative, what I would suggest is that if there  
15 is a lack of witnesses, it is licensee's responsibility, not  
16 TMIA's, to have Dr. Zebroski come here and testify so that  
17 there is not a vacant or open hearing time.

18 I would also suggest that if the other parties feel they  
19 are not prejudiced, then they should go ahead with their  
20 cross-examination of Mr. Dieckamp and permit TMIA to proceed on  
21 Monday as originally scheduled.

22 We believe we are gravely prejudiced, not only because  
23 of lack of documents but lack of notice.

24 JUDGE SMITH: We have, by design, not asked the other  
25 parties to comment on your view of the events leading to this

1 morning. Needless to say, the Board does not share your view  
2 of how we got here and what occasioned the lengthy prehearing  
3 conferences. It is a very one-sided explanation.

4 One thing we did observe is that your remarks this  
5 morning were not extemporaneous. They were carefully prepared.  
6 You have obviously spent some time preparing them.

7 And we wonder if you made a good faith effort to comply  
8 with the Board's request to organize your cross-examination of  
9 Mr. Dieckamp.

10 Mr. Dieckamp, as you observed, is the principal actor  
11 in this chain of events. The basic issue has been known to  
12 everyone indeed since our initial decision several years ago,  
13 and the focus on it has been known since the Appeal Board's  
14 decision.

15 Despite the Board's reluctance and perhaps failure to  
16 control the case as we should have, the case seems to have  
17 grown and grown and grown far beyond our continued insistence  
18 that it be recognized as a relatively simple issue: what did  
19 Mr. Dieckamp know when he sent the mailgram.

20 We still believe that it is a simple issue. We have  
21 indicated our continuing belief in that, as we have continually  
22 denied extensions of time. Nothing has happened to change it.  
23 It is still a simple issue.

24 We believe that if you are not prepared this morning to  
25 cross-examine Mr. Dieckamp as you indicated last night, it



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1 really does bring into doubt what contribution you can make to  
2 the record.

3 Now, on the other hand, we notice yesterday that you did  
4 have a well-structured cross-examination, so I am not predict-  
5 ing that you are not able to make a contribution to the record.  
6 I am predicting that you can do quite well with the notice we  
7 have given you.

8 I am really saying if, as you state, you are unable to  
9 proceed, that would be a natural consequence that after all of  
10 this time, with the recognition of how simple the issue is,  
11 that you are not ready to cross-examine him. If that were in  
12 fact to be the case, then we would question the contribution  
13 you can make.

14 I am not talking about opportunity to prepare to cross-  
15 examine Mr. Dieckamp. I would assume that you are today  
16 prepared.

17 The point I am trying to make is, you may need time to  
18 organize, to change your plans based upon the change in the  
19 schedule, and that much time -- we tried to warn you about that  
20 last night, and we will give you additional time this morning.

21 In any event, we do want to address the problem you  
22 raise about not having the documents necessary to cross-  
23 examine him.

24 And we will also consider the proposal that you made,  
25 that other examinations of Mr. Dieckamp go first. If that may  
be worked out, we will try to be as flexible as possible.

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1           And then, of course, we will go back to Mr. Blake to see  
2 if the suggestion that Mr. Zebroski be brought on is possible,  
3 too. We will cooperate with you as much as we can.

4           In the final analysis, if it turns out that you are  
5 indeed in fact prejudiced by being required to proceed in a  
6 manner in which did not schedule, then we will listen to your  
7 request for relief and we will assure that there has been a  
8 complete opportunity to develop a full and reliable record on  
9 this issue.

10           In the meantime, let's hear from Mr. Blake about the  
11 possibility of Dr. Zebroski.

12           MR. BLAKE: Judge Smith, it is my understanding that  
13 Dr. Zebroski is in Washington today, at a conference which  
14 has been scheduled and which the parties had previously  
15 discussed with respect to the schedule.

16           I have asked Mr. Lewis at the next break to try to reach  
17 Dr. Zebroski and determine whether or not there is any  
18 possibility of his coming up.

19           I must tell you, it was my understanding that he just  
20 had a scheduled day in Washington, and was not expected to  
21 come to Harrisburg until about 8:00 this evening, but I will  
22 double-check if I can locate him.

23           JUDGE SMITH: We will return to this consideration after  
24 we have the testimony of this witness.

25           JUDGE LINENBERGER: Mr. Blake, a preliminary, perhaps

1 housekeeping matter here. Because of the events of the recent  
2 couple of days, my copy of the Joint Mailgram Exhibit No. 1 has  
3 not caught up with me.

4 The only problem this gives me is that it would be very  
5 convenient if a copy of the index of that exhibit could be made  
6 available to me sometime this morning so that I could manage my  
7 own handling of the matter.

8 If that index is not readily separable from the rest of  
9 the exhibits, let me know. But my impression is that it is.

10 MR. LEWIS: It is readily separable. I can provide you  
11 a copy now. Mr. Au indicated also this morning that he would  
12 like a copy of the index, and I could give him a copy as well  
13 at this time.

14 JUDGE WOLFE: I would like a copy, also.

15 MR. BLAKE: That's the end of the spares that we have  
16 available with us.

17 JUDGE LINENBERGER: Thank you, sir.

18 JUDGE SMITH: Are you ready to proceed?

19 MR. BLAKE: I am, and licensee calls for its next  
20 witness Mr. Van Witbeck.

21 Whereupon,

22 THOMAS LEROY VAN WITBECK  
23 having been duly sworn, testified as follows:

24

25



## DIRECT EXAMINATION

1  
2 BY MR. BLAKE:

3 Q Would you please state your full name and business  
4 address?

5 A Thomas L. Van Witbeck. My business is: 1 Energy  
6 Drive, Idaho Falls, Idaho.

7 Q Mr. Van Witbeck, do you have before you a document  
8 dated November 1, 1984 entitled, "Testimony of Thomas Leroy  
9 Van Witbeck"?

10 A Yes.

11 Q Was this document prepared by you?

12 A Yes, it was.

13 Q Do you adopt this document as your testimony in this  
14 proceeding?

15 A Yes, I do.

16 MR. BLAKE: Mr. Smith, I ask that the document dated  
17 November 1, 1984, entitled, "Testimony of Thomas Leroy Van  
18 Witbeck," comprised of four pages be physically incorporated  
19 into the record as though read, having been adopted as Mr.  
20 Van Witbeck's testimony.

21 JUDGE SMITH: Are there objections?

22 MS. BERNABEI: Yes. I would move to strike the testi-  
23 mony in its entirety as not relevant to any issue before the  
24 Board. Mr. Van Witbeck apparently arrived on the TMI site at  
25 8:00 a.m. on March 31.

1           His testimony does not indicate any knowledge he has of  
2 understanding of the pressure spike by site personnel on  
3 March 28, nor does it indicate any understanding of Mr.  
4 Dieckamp's awareness of site personnel's understanding of the  
5 pressure spike on that date.

6           Therefore, I don't think it's relevant to the issue of  
7 whether Mr. Dieckamp knew or should have known of the pressure  
8 spike, knew or should have known of the statements in the  
9 mailgram including the statement that no one interpreted the  
10 pressure spike correctly on March 28. He has no information  
11 relative to that issue.

12           JUDGE SMITH: I understand the purpose of this testimony  
13 is to address the sub-issue introduced into this hearing by  
14 you yourself with the permission of the Board, and that is:  
15 did Mr. Dieckamp send the mailgram with careless disregard for  
16 the accuracy of it?

17           I infer that that is the purpose of it; is that correct?

18           MR. BLAKE: Yes, sir.

19           JUDGE SMITH: Overruled.

20           Any other objections?

21           (No response.)

22           JUDGE SMITH: All right, the testimony is received.

23           (The document follows:)

24

25

November 1, 1984

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-Management Remand)
(Three Mile Island Nuclear	)	
Station, Unit No. 1)	)	

TESTIMONY OF THOMAS LEROY VAN WITBECK

My name is Thomas Leroy Van Witbeck. I currently hold the position of Corporate Vice President Plant Services Group for Energy Incorporated. The Plant Services Group provides consulting services and management information systems to the utility industry, primarily to the nuclear utility companies. The consulting services are provided in the areas of plant startup, operation and maintenance. The management information systems are designed to support operation and maintenance of capital intensive facilities such as nuclear power plants.

My background encompasses 25 years of association with the nuclear industry, of which seven years were in the U.S. Navy Nuclear Program, four years in facility operation, 10 years in plant startup and operations consulting, and the past four years in the management of a consulting business.



I hold a Bachelor of Science Degree in Nuclear Engineering from Oregon State University. I am a member of the American Nuclear Society, a registered Professional Engineer, and have held a reactor operator's license.

On March 30, 1979, Energy Incorporated was requested to provide assistance to GPU at Three Mile Island. I arrived at the TMI visitors center at approximately 8:00 AM on March 31, 1979, with a crew of six EI employees. The resumes of the EI personnel and a letter of introduction were presented to GPU. By 2:00 PM all personnel were checked in and had received assignments.

My initial assignment was to participate in the preparation of a sequence of events. After several weeks I was placed in charge of the group developing the sequence of events. This group grew in charter and number to become the Accident Assessment Group (AAG), having about 15 members at the peak of activity. The AAG prepared in excess of a dozen technical data reports covering events surrounding the accident. To prepare these reports the AAG reviewed plant records and interviewed plant staff and drew upon their experience and knowledge. As a leader of this group I reviewed all reports which I personally did not prepare.

As a result of the review of records and discussions with the TMI staff the AAG became aware of the pressure spike on

March 31, 1979. My appreciation for the significance of the pressure spike as a measure of core damage however was not gained until I was exposed to calculations of the volume of H2 involved which was somewhere in the period April 2nd through April 4th.

As head of the AAG, I was involved in several sessions with the GPU management regarding the development of a sequence of events during the period April 6, 1979 through May 1, 1979. Herman Dieckamp was present at each of these review sessions and asked questions regarding the sequence which were indicative of his desire to have a detailed knowledge of the accident and events surrounding the accident.

During the early days of the accident I also saw Herman Dieckamp in the trailer city and the dining tent periodically. At these chance meetings we would discuss some technical point or Mr. Dieckamp would ask questions regarding the AAG work progress which indicated a knowledge of the technical aspects of the investigation.

On September 15, 1979, I made the last formal presentation to Mr. Dieckamp and Mr. Arnold that I recall making. At this meeting I covered three topics:

Initiating events of the accident,  
HPI/MU performance, and  
Operator actions during the first 72 hours following the  
accident.

These topics and their technical content are typical of the detailed technical knowledge Mr. Dieckamp required and over which he maintained cognizance.



1 JUDGE SMITH: I was going to ask, for the purpose of  
2 those who do not have copies of the testimony, that a very  
3 brief summary of the purpose of the testimony be provided.  
4 However, I think that this exchange between us has done that.

5 Is Mr. Van Witbeck available for cross-examination?

6 MR. BLAKE: Yes, he is. And I would say, in addition to  
7 the copies the parties have, we have attempted to make copies  
8 of this prepared testimony available for members of the public.

9 JUDGE SMITH: That's very helpful, thank you.

10 You may proceed.

11 CROSS--EXAMINATION

12 BY MS. BERNABEI:

13 Q. Mr. Van Witbeck, you arrived at the TMI site for the  
14 first time after the TMI accident on March 31, is that correct?

15 A. Yes. I state that in my testimony.

16 Q. Prior to March 31, did you speak to Mr. Dieckamp  
17 about the pressure spike, the initiation or combustion of  
18 hydrogen or core damage?

19 A. No, I did not.

20 Q. I believe in your testimony you indicate that you  
21 became aware of the significance of the pressure spike in the  
22 period of April 2 through April 4, is that correct?

23 MR. BLAKE: Objection. The testimony stands for itself,  
24 and rather than characterizing it, I believe we should read the  
25 portion you are referring to. I don't believe that is an

1 accurate characterization. The portion of it is at the top of  
2 page 3.

3 MS. BERNABEI: I think the witness can answer the  
4 question. I'm asking for his characterization as a preliminary  
5 foundation question.

6 JUDGE SMITH: Your ideas are not joined. I think the  
7 objection here is that you are mischaracterizing it.

8 MS. BERNABEI: I think the witness can answer it.

9 JUDGE SMITH: Let's not do it that way. If you are  
10 mischaracterizing it, let's not mischaracterize it. However, I  
11 agree with you that it is appropriate to cast the testimony in  
12 a question so that you can lay the groundwork for the question.

13 BY MS. BERNABEI:

14 Q. Mr. Van Witbeck, do you not say in your testimony  
15 that your appreciation of the pressure spike as an indicator of  
16 core damage would not be until sometime in the period April 2  
17 through April 4?

18 A. No, I did not say that in my testimony.

19 Q. I would like to refer you to the first full sentence  
20 on page 3.

21 A. Yes.

22 Q. Does it not say, "My appreciation for the signifi-  
23 cance of the pressure spike as a measure of core damage was  
24 not gained" until you were exposed to calculations of the  
25 volume of hydrogen? Is that correct?

1 A. That is correct.

2 Q. You were exposed to those calculations of the  
3 volume of hydrogen sometime in the period April 2nd through  
4 April 4th?

5 A. Yes.

6 Q. Therefore, it's fair to say that your appreciation  
7 for the pressure spike as a measure of core damage would be  
8 sometime in the period April 2nd through April 4th?

9 A. Yes.

10 Q. Prior to the period, did you speak to Mr. Dieckamp  
11 about an appreciation of the pressure spike as a measure of  
12 core damage?

13 A. No, I did not.

14 Q. At any time after this period, did you speak to  
15 Mr. Dieckamp about the significance of the pressure spike in  
16 terms of a measure of core damage?

17 A. Yes.

18 Q. When was that?

19 A. I don't know. The last time I did speak to him of  
20 that was within the last three days.

21 Q. Did you speak to him at any time during 1979?

22 A. I don't know.

23 Q. Did you speak to him at any time during 1980 about  
24 that?

25 A. Again, I do not know. May I make a statement? I



1 was on the site for one and a half years following the  
2 accident.

3 Q I understand.

4 A And I am not sure in that time period, the latter  
5 parts of that period whether or not that was discussed.

6 Q Did you speak to any site personnel about the  
7 pressure spike, the generation of hydrogen, the combustion of  
8 hydrogen, or core damage which those things indicated prior to  
9 your arrival on the site on March 31st?

10 A No, I did not.

11 Q Did you speak to any site personnel about their  
12 appreciation of the pressure spike as an indicator of core  
13 damage at any time prior to the period April 2nd through  
14 April 4th?

15 A Not to my knowledge.

16 Q Did you speak to any site personnel from the period  
17 April 2nd through April 4th prior to May 9th?

18 A Would you define to me what you are referring to me  
19 as site personnel?

20 Q Yes, Met-Ed personnel who were involved in operation  
21 of TMI-2 or the cooldown of TMI-2 on March 28th or March 29th.

22 A Would you repeat the time frame you're interested in?

23 Q Yes, March 28th and March 29th. Did you speak to  
24 any such personnel in the period from the time of the accident  
25 through May 9th?

1           A.    Would you repeat the part of the question with  
2           respect to what the discussion was centered around?

3           Q.    Yes, whether the pressure spike was an indicator of  
4           core damage.

5           A.    No, I did not.

6           Q.    Did you speak to any site personnel, defined in the  
7           previous question, about whether or not they on March 28th or  
8           March 29th interpreted the pressure spike to indicate core  
9           damage?

10          A.    Yes, I did speak to those people about that.

11          Q.    In what period of time?

12          A.    It would have been in the time frame of April 26th--  
13          the 24th, excuse me; from there on through probably the remain-  
14          der of 1979 with reference to the sequence of events.

15          Q.    Did you speak to them as to whether or not they  
16          understood or interpreted the pressure spike in terms of core  
17          damage in the first two days of the accident?

18          A.    I do not recall such explicit discussions.

19          Q.    Did you speak to them at any time about whether they  
20          withheld from the NRC or the public any information about the  
21          pressure spike, the generation of hydrogen or the core damage  
22          which was indicated by those two things?

23          A.    Not to my recollection.

24          Q.    So I understand your testimony, you cannot remember  
25          at any time speaking to site personnel at TMI-2 during the

1 accident on March 28th and March 29th about whether they  
2 interpreted the pressure spike to indicate core damage during  
3 those two days, and you cannot remember speaking to them about  
4 whether they withheld -- whether the licensee withheld  
5 information about those events, is that correct?

6 A. That is correct.

7 Q. Did you speak to Mr. Dieckamp at any time about  
8 whether site personnel on the first two days of the accident  
9 understood the pressure spike to indicate the generation and  
10 burning of hydrogen and core damage?

11 A. Would you repeat the question, please?

12 Q. Yes. Have you ever spoken to Mr. Dieckamp about  
13 whether site personnel interpreted the pressure spike in the  
14 first two days of the accident to indicate a hydrogen burn or  
15 core damage?

16 A. I cannot be sure whether I have or not.

17 Q. Have you ever spoken to Mr. Dieckamp about whether  
18 or not the licensee officials or Met-Ed officials have  
19 withheld information from the NRC or the public about those  
20 events on March 28th?

21 A. Repeat that question, please.

22 Q. Yes. Have you ever spoken, to your knowledge, to  
23 Mr. Dieckamp about whether the licensee officials or plant  
24 personnel withheld information about the pressure spike, the  
25 generation or burn of hydrogen or core damage?



1           A. I don't recall any specific discussions to that  
2 effect, but I would say that at some time I must have discussed  
3 that with him.

4           Q. Do you remember one occasion on which you discussed  
5 that with him?

6           A. Other than in this courtroom in the last few days,  
7 no.

8           JUDGE SMITH: Would you read the question back, please,  
9 the question before the last question?

10          MS. BERNABEI: I believe it had to do --

11          JUDGE SMITH: I was asking the reporter.

12          (Whereupon, the reporter read from the record, as  
13 requested.)

14          BY MS. BERNABEI:

15          Q. Mr. Van Witbeck, referring you now to page 3 of your  
16 testimony --

17          JUDGE SMITH: Excuse me just a moment. I am going to  
18 intercede. Would you please relate those conversations to  
19 which you referred?

20          THE WITNESS: As to when those conversations took place,  
21 I cannot say with respect to the discussions, other than a  
22 telephone conversation that was held prior to this hearing  
23 regarding this hearing as to what the charges were being  
24 brought forth.

25          The second would be that in my working relationship with

1 the staff. This would have come up at some time, I would  
2 assume, in my past in one of the discussions such as this  
3 meeting on September 15, 1979.

4 As far as a specific instance other than those two, I  
5 could not say.

6 JUDGE SMITH: My question is, would you tell us what  
7 the substance of these conversations were which related to  
8 whether Mr. Dieckamp or site personnel withheld information  
9 with respect to the pressure spike, hydrogen generation or  
10 core damage.

11 Could you tell us the substance of those conversations  
12 and, as well as you can, when those conversations took place?

13 THE WITNESS: The telephone conversation would have  
14 been in the last six weeks. Basically, it was an exchange of,  
15 this is what has been stated as the record; this is what is  
16 being brought forward as a question; and would I be willing to  
17 come here and testify at this hearing with respect to my  
18 involvement in the early days of Three Mile Island.

19 With respect to the September 15 meeting, I can only  
20 assume it came up at that meeting based on the agenda that we  
21 had for that meeting. That was September 15, 1979.

22 JUDGE SMITH: Mr. Van Witbeck, I don't know if you  
23 understand the question.

24 THE WITNESS: I cannot give you the substance of the  
25 September 15 meeting other than the identified agenda that we

1 had for that meeting.

2 JUDGE SMITH: Is your testimony then that there was no  
3 discussion or that there was discussion in which you exchanged  
4 information, received information that site personnel did or  
5 did not withhold information with respect to pressure spike,  
6 hydrogen generation or core damage? You're just alluding to  
7 the fact of the discussion without telling us about the  
8 nature of the discussion, about the guts of the discussion.  
9 This is the issue.

10 THE WITNESS: The guts of the discussion from the  
11 telephone conversation were that these charges had been brought  
12 forward and that I was being asked to come and testify with  
13 respect to those charges and my involvement in the early days  
14 of the Three Mile Island accident. Nothing beyond that with  
15 respect to whether information had been withheld or had not  
16 been withheld was brought forward in that conversation.

17 JUDGE SMITH: Has it ever been brought forward in any  
18 conversation you have had with Mr. Dieckamp?

19 THE WITNESS: The only thing that would approximate that  
20 would be the charge that was given to the crew that I was  
21 operating for the utility at that time.

22 And that charge was with respect to what our job was in  
23 reporting what we found and how we went about reporting it in  
24 the preparation of the sequence of events. That would be the  
25 only thing that I can recall.



1 JUDGE SMITH: I still am concerned that I have not  
2 really explained what my question is, or somehow it is not  
3 coming through.

4 The sub-issue before us is whether Mr. Dieckamp or  
5 whether GPU employees or consultants withheld information  
6 concerning the generation of hydrogen, the pressure spike  
7 and/or core damage.

8 The question put to you by Ms. Bernabei was: did you  
9 have any conversation with Mr. Dieckamp on that subject, and  
10 you said yes.

11 Subsequently, your testimony has been about when and  
12 sometimes where and the circumstances surrounding such  
13 conversations.

14 But you haven't quite zeroed in as to what exactly did  
15 you talk about. Did you receive any information that anybody  
16 withheld such information, ever?

17 THE WITNESS: No, I did not.

18 JUDGE SMITH: What is your problem with my question?  
19 Did you have a problem with my question?

20 THE WITNESS: I have no problem with your question. My  
21 answer to the question is that the only conversation that I  
22 have had that I can recall with Mr. Dieckamp regarding the  
23 issues before this committee or this Board right now is that  
24 Mr. Dieckamp and I had a phone conversation in which I was  
25 asked to come here and discuss this issue. And that is it.

1           There has not been any meeting that I can recall where  
2 Mr. Dieckamp and I sat down and talked one on one about  
3 withholding information, whether it has been done or has not  
4 been done with respect to the specific issues before this Board.

5           JUDGE SMITH: Ms. Bernabei?

6           MR. GOLDBERG: Excuse me. I just want to make something  
7 clear for the record. In responding to one of your questions,  
8 Judge Smith, Mr. Van Witbeck used the phrase "working  
9 relationship with the staff."

10           And I want the record to be clear that, to my knowledge,  
11 at least -- and the witness can confirm this -- he has no  
12 working relationship with the NRC Staff. He was referring, I  
13 am sure, to TMI plant or his own staff.

14           THE WITNESS: That is correct.

15           BY MS. BERNABEI:

16           Q. Mr. Van Witbeck, you referred to September 15, 1979,  
17 a formal presentation, both in your testimony and in answer to  
18 one of Judge Smith's questions, is that correct?

19           A. Yes.

20           Q. Did you review, in preparation for your testimony,  
21 the minutes or record of that meeting?

22           A. I reviewed a record that indicated that that meeting  
23 had taken place.

24           Q. Did you review any minutes or a record of the  
25 substance or nature of the meeting?

1 A. The memo described the major subject. I did not go  
2 into any records of that meeting.

3 Q. Did you make that memorandum available to the  
4 company's counsel in preparation for this hearing?

5 A. Yes.

6 Q. Is it fair to say that that agenda for the meeting  
7 lists nowhere the licensee's or site personnel's appreciation  
8 of the pressure spike in terms of hydrogen generation or core  
9 damage? Is that correct?

10 A. Right.

11 Q. And also, it does not refer in any way to whether  
12 licensee or site personnel withheld information about the  
13 pressure spike, generation or burn of hydrogen or core damage?

14 A. That's correct.

15 Q. In fact, it would be fair to say that the  
16 significance of the pressure spike or hydrogen burn were  
17 nowhere discussed in that meeting?

18 A. I do not recall the total discussions of that  
19 meeting. One of the items on the agenda were the operators'  
20 reactions during the first 72 hours following the accident. It  
21 is possible in that context it came up.

22 Q. You have no memory of that; is that correct?

23 A. I do not recall that occurring.

24 MS. BERNABEI: I would renew my motion at this time to  
25 strike Mr. Van Witbeck's testimony.



1 JUDGE SMITH: Overruled.

2 MS. BERNABEI: I have no other questions.

3 JUDGE SMITH: Mr. Au?

4 CROSS-EXAMINATION

5 BY MR. AU:

6 Q I just have a couple of questions. During the  
7 period from March 30 to May 9, did you report directly to  
8 Mr. Dieckamp?

9 A I was not at the island on March 30. I believe my  
10 testimony states March 31.

11 Q So, for your involvement from March 31 through  
12 May 9, did you report directly to Mr. Dieckamp?

13 A No, I did not.

14 Q On page 3 of your testimony, you have mentioned  
15 chance meetings with Mr. Dieckamp. Is that to say you did not  
16 meet with him regularly?

17 A No, that isn't to say that I didn't meet with him  
18 other than on chance occasions.

19 Q How frequent were your meetings with him?

20 A In the first month following the accident, I  
21 remember two meetings with Mr. Dieckamp specifically to discuss  
22 the sequence of events.

23 MR. AU: Thank you, that's all I have.

24 JUDGE SMITH: Mr. Goldberg?

25 MS. FINKELSTEIN: The Staff has some questions.

## CROSS-EXAMINATION

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BY MS. FINKELSTEIN:

Q. Mr. Van Witbeck, I believe it's your testimony today that the AAG reviewed plant records and interviewed plant staff during the period April 24, 1979 through the end of 1979; is that correct?

A. I don't recall stating in my testimony through the end of 1979.

Q. During what period of time did the AAG review plant records and interview plant staff?

A. It was an on-going effort from March 31 through mid-1980.

Q. During that period of time, were there any restrictions placed by licensees on the AAG's access to plant records?

A. No.

Q. Approximately how many plant records were reviewed by the AAG?

A. We looked at every chart recorder from every instrument; every interview conducted of every person by anybody that we could get the tapes from; all records, plant start-up records, operating records, maintenance records, NRC records that were available to us.

I have no idea of the volume. I know it was massive. We had a staff of up to 15 people working full-time doing this.

1           We were also at that time, very shortly after the  
2 accident, under a court order to maintain copies of all notes  
3 and records, and we turned over at the dissolution of that  
4 group about three file cabinets full of records and notes that  
5 we had made ourselves.

6           Q     During that same time frame, were there any  
7 restrictions placed by licensee on AAG's access to plant staff?

8           A     No.

9           Q     Approximately how many members of the plant staff  
10 were interviewed by the AAG?

11          A     The AAG itself interviewed, I would estimate,  
12 conducted 12 to 15 interviews of a formal nature. We also had  
13 a variety of group discussions with the operating staff.

14          Q     Could you briefly describe the employment roles of  
15 those people interviewed at the time they were interviewed by  
16 the AAG?

17          A     Repeat the question, please.

18          Q     Could you briefly describe the employment roles of  
19 the people interviewed by the AAG at the time they were  
20 interviewed by the group?

21          A     The plant operating staff; the maintenance staff;  
22 some of the engineers involved in the plant start-up.

23          Q     Did those interviews include the GPU Service  
24 Corporation personnel, B&W personnel?

25          A     We did not interview B&W personnel as we had access



1 to their interviews by other parties. As to whether the  
2 people were working for GPU Service Corp. or Met-Ed, we did not  
3 make the distinction at that time and I cannot truthfully say  
4 whether some of the engineers that we interviewed were working  
5 for GPU or Met-Ed.

6 MS. FINKELSTEIN: Thank you. We have no more questions.

7 JUDGE LINENBERGER: Sir, the Board would like to under-  
8 stand a little better the working relationship that existed at  
9 the time you were involved in the AAG inquiries.

10 In the first place, you indicated that your office  
11 location is in Idaho Falls. Is the company headquarters  
12 located there?

13 THE WITNESS: Yes, it is.

14 JUDGE LINENBERGER: Secondly, you indicated that your  
15 involvement in the development of the sequence of events --  
16 the first full paragraph on page 3, the first sentence of that  
17 paragraph talks about a sequence of events during the period  
18 April 6 through May 1, 1979, but I presume that that is the  
19 period of time of your involvement, not the period of time of  
20 the events you were looking into; is that correct?

21 THE WITNESS: That is correct.

22 JUDGE LINENBERGER: Now, in your position as head of  
23 the AAG inquiry group, to whom were you reporting directly?

24 THE WITNESS: Robert Long.

25 JUDGE LINENBERGER: Of what organization?

1 THE WITNESS: General Public Utilities.

2 JUDGE LINENBERGER: Did you or the AAG group under your  
3 direction cause to be prepared any kind of report on the  
4 sequence of events?

5 THE WITNESS: We were the authors of it. I was the  
6 prime author of it, in fact.

7 JUDGE LINENBERGER: Is there some title, identification,  
8 date or something that you could give us a citation to that, or  
9 did I miss that in your testimony?

10 THE WITNESS: No. The original document was called,  
11 "The Preliminary Annotated Sequence of Events, March 28, 1979."

12 JUDGE LINENBERGER: The date again, please?

13 THE WITNESS: That's the date of the accident. This  
14 document was published a number of times with updates as more  
15 and more knowledge was gained.

16 This was the principal, insofar as I know, and still is  
17 today, the principal sequence of events that GP is using with  
18 respect to the TMI accident.

19 JUDGE LINENBERGER: Can you tell me approximately the  
20 date of the first publication of that document, and then the  
21 date of the publication of the last update?

22 THE WITNESS: I believe the first date we published it,  
23 according to my records, is April 16. It is a copy dated  
24 April 16, 1979. The last date, I do not know. It was some-  
25 time I believe during the fall of 1980, summer to fall of 1980.

1 JUDGE LINENBERGER: To whom in licensee's organization  
2 were those reports submitted?

3 THE WITNESS: I don't recall the total list. I do know  
4 that --

5 JUDGE LINENBERGER: Excuse me, let me be a little more  
6 explicit, then. You indicated earlier that the AAG reported to  
7 Mr. Long. Would he be, so far as your transmission of reports  
8 are concerned, the highest level addressee within the licensee  
9 organization?

10 THE WITNESS: No.

11 JUDGE LINENBERGER: Who would be the highest level  
12 addressee in the licensee's organization that these reports  
13 would be transmitted to?

14 THE WITNESS: The original document was submitted to  
15 Mr. Creitz and Mr. Dieckamp. I have a record of that. One of  
16 the meetings I held with Mr. Dieckamp was to discuss that  
17 document.

18 They were distributed to the operations staff, the  
19 engineering staff, the NRC.

20 JUDGE LINENBERGER: All right, sir. Now, at the top of  
21 page 3 of your testimony, in the paragraph that carries over  
22 from the bottom of page 2, you indicate something about the  
23 early days of your involvement, and make the comment about  
24 your appreciation of the significance of the pressure spike  
25 deriving from your exposure to calculations of the volume of



1 hydrogen involved let's say in the event, without being more  
2 specific.

3 Particularly, I am interested to know whose calculations  
4 it was, if you know, that gave you this appreciation.

5 THE WITNESS: Mr. Jim Henry of Rockwell International.

6 JUDGE LINENBERGER: Were you here yesterday during  
7 Mr. Lowe's testimony?

8 THE WITNESS: Yes, I was.

9 JUDGE LINENBERGER: Did you have discussions with Mr.  
10 Lowe about the kinds of things he alluded to yesterday,  
11 discussions back at the early period from March 31 through  
12 April 4, let's say? Do you recall discussing hydrogen volume  
13 with Mr. Lowe or the impact or significance of the pressure  
14 spike?

15 THE WITNESS: I do not recall such discussions.

16 JUDGE LINENBERGER: Do you recall generally whether you  
17 interacted with Mr. Lowe in those early days?

18 THE WITNESS: I did not. Mr. Lowe was in a different  
19 group than I was in.

20 JUDGE LINENBERGER: And the name again of the gentleman  
21 from Rockwell?

22 THE WITNESS: Mr. Jim Henry.

23 JUDGE LINENBERGER: Does Mr. Henry's awareness and  
24 involvement of these kinds of things signify that there was  
25 somehow an effort parallel to yours to reconstruct the early

1 history of the incident?

2 THE WITNESS: Mr. Henry's specific involvement was to  
3 make these calculations. That was a corollary mission to our  
4 mission to develop the sequence of events.

5 JUDGE LINENBERGER: At the top of page 4, you list  
6 three areas, the technical contents of which you cite as being  
7 indicative of the technical knowledge of Mr. Dieckamp.

8 My question is, are all three of those areas representa-  
9 tive of areas of investigation that your AAG group involved  
10 itself in?

11 THE WITNESS: Yes.

12 JUDGE LINENBERGER: The second of those three items  
13 there is the initialization MU. What does that stand for?

14 THE WITNESS: Make-up.

15 JUDGE LINENBERGER: Make-up of what?

16 THE WITNESS: The high pressure injection pumps are also  
17 used for make-up at Three Mile Island to the primary system.

18 JUDGE LINENBERGER: So, it is make-up coolant to the  
19 primary system?

20 THE WITNESS: That is correct.

21 JUDGE LINENBERGER: The April 16, 1979 first issuance of  
22 the AAG study report represents, so far as you know, the best  
23 summary of early events in the accident we are talking about,  
24 or do you consider that at that time there existed any other  
25 summary of merit so far as you viewed it at that time?

1 THE WITNESS: To my knowledge, on April 16, this was  
2 the only sequence of events that had been published that had  
3 the advantage of having the records of the plant available to  
4 it. One was under development by the Electrical Power Research  
5 Institute. I do not believe it had been published at that  
6 time.

7 JUDGE LINENBERGER: All right, sir. I think I have no  
8 further questions. Thank you.

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1 JUDGE SMITH: Mr. Van Witbeck, the study to which  
2 you referred has been received in evidence in this proceeding  
3 when we had a special session on the response to the accident.  
4 Are you familiar with the study, yourself?

5 THE WITNESS: I haven't looked at it since 1979 so  
6 I cannot say how it has developed since that time, but I  
7 did review and critique that document in 1979.

8 JUDGE SMITH: Then you are aware of it. Was it  
9 predicated upon your work, or was that independent work?

10 THE WITNESS: That was primarily independent work.

11 JUDGE WOLFE: Mr. Van Witbeck, perhaps you can help  
12 me out. If you don't recall the question being put to you  
13 and your response, perhaps Ms. Bernabei can help us out.

14 It is my recollection that several times during the  
15 course of Ms. Bernabei's cross-examination in response to  
16 her questions you said that you had no recollection. One  
17 question that I remember, I hope with some particularity --  
18 perhaps Ms. Bernabei can help me out -- the question was  
19 put to you: during the course of your investigation and  
20 discussions with GPU staff no one stated that they  
21 had information about which they were knowledgeable on  
22 March 28, 1979. Is that which I just stated a fair statement  
23 of what the question was, and what your answer was?

24 THE WITNESS: Let me repeat that. Your question was  
25 nobody during my investigation indicated that they had withheld

1 information with respect to the interpretation of the hydrogen  
p2 2 spike during the accident and the few days following it?

3 JUDGE WOLFE: And was your preface to that that it was  
4 your recollection that no one had so stated to you?

5 THE WITNESS: That is correct.

6 MS. BERNABEI: Judge Wolfe, from my impression, I  
7 believe the question was slightly more open ended; that is:  
8 did you have any discussions about whether or not there was  
9 withholding of information about those events? That is, I  
10 did not necessarily ask the question: did anyone indicate  
11 directly to you that they had withheld information? It was  
12 a broader question about whether there was any discussion  
13 about a withholding.

14 JUDGE WOLFE: In any event, you did use the words  
15 "not to my recollection"?

16 THE WITNESS: That is correct.

17 JUDGE WOLFE: Now in using the words "not to my  
18 recollection," that was in response to the question that I  
19 thought Ms. Bernabei put to you -- or more open ended, as  
20 she puts it. When you say "not to my recollection," are you  
21 saying no, it did not happen; there was no such discussion  
22 or statement; or there may well have been, but I have no  
23 present recollection that there was such a statement or  
24 discussion?

25 THE WITNESS: With respect to --

1 JUDGE WOLFE: Or any way you wish to respond to that.

2 THE WITNESS: With respect to her question, I do not  
3 recall having specific discussions with individuals as to  
4 whether or not they had withheld information. I may have had  
5 discussions with my own staff -- or the GPU management had  
6 them -- as to whether or not we thought that it had occurred.  
7 I do not recall whether we had those discussions or not.

8 To my knowledge, from the work I performed there, I  
9 found no evidence that anybody withheld any information  
10 regarding the accident within the scope of the investigation  
11 that the Accident Assessment Group made.

12 Does that answer your question?

13 JUDGE WOLFE: You have answered, and I will reflect  
14 on your response.

15 JUDGE SMITH: Mr. Blake?

16 REDIRECT EXAMINATION

17 BY MR. BLAKE:

18 Q. Mr. Van Witbeck, you have indicated in your testi-  
19 mony in response to a number of questions that you conducted  
20 a number of individual interviews of persons that were  
21 conducted by AAG, and that in addition you reviewed the  
22 material on interviews conducted by others in the course of  
23 doing your AAG work.

24 Did any of those interviews which you used in compiling  
25 the preliminary sequence of events which you indicated was



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1 issued on April 16th reflect an appreciation of the course  
2 in terms of core damage?

3 MS. BERNABEI: Objection; there is no foundation that  
4 that was the purpose, or, in fact, the result of the sequence  
5 of events. I think even a cursory review will show that it  
6 was not in fact the purpose, intent or effect of that sequence  
7 of events.

8 JUDGE SMITH: I thought I understood the question until  
9 I heard your objection. Now I'm not so sure.

10 Please restate the question.

11 MR. BLAKE: My question is whether or not all of the  
12 interviews that he has referred to that the AAG conducted or  
13 otherwise had materials available to them prior to the  
14 issuance of the April 16th sequence of events reflected that  
15 an individual or that anyone interpreted the pressure spike  
16 in terms of the core damage.

17 MS. BERNABEI: It is my understanding that that was  
18 not the purpose of the AAG study, and I think it certainly is  
19 not the purpose of the sequence of events, and does not  
20 reflect any conclusions.

21 JUDGE SMITH: Where I have trouble is with the language  
22 you use in your objection. The purpose of the sequence of  
23 events; that is where I fall down. But in any event, the  
24 question propounded by Mr. Blake was really necessary and  
25 made desirable by your cross-examination and that by Judge

p5

1 Linenberger; and your objection is overruled.

2 THE WITNESS: Would you state the question one more  
3 time?

4 MR. BLAKE: I will try to do it exactly the way I  
5 did since there was an objection and a ruling on it.

6 JUDGE SMITH: The objection is overruled.

7 MR. BLAKE: Yes, but the witness has asked me to repeat  
8 it, and I am going to try to do it precisely as I did before.

9 BY MR. BLAKE:

10 Q In any of the interviews which AAG conducted or  
11 from the materials from interviews conducted by others that  
12 you had available to you when you produced your April 16th  
13 preliminary sequence of events, did anyone indicate that they  
14 interpreted the pressure spike in terms of core damage at  
15 the time it occurred?

16 A. No.

17 Q In any of those initial interviews with individuals,  
18 to your recollection, was the term "hydrogen" in conjunction  
19 with a pressure spike mentioned?

20 A. Not with respect to their knowledge of it at the  
21 time.

22 Q In response to a question from Judge Linenberger  
23 or Judge Smith -- I believe Judge Smith -- you made reference  
24 to a charge. Judge Smith's question was: what was the  
25 substance of any conversations that you may have had with Mr.

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1 Dieckamp regarding withholding of information? In your  
2 response you referred to: I don't recall any conversations  
3 other than the charge to me or my crew people working on the  
4 sequence of events. Would you explain what you mean by that?

5 A. Early in the accident in the time frame that we  
6 first got on the site, the AAG was put together, and we were  
7 told by the management to look into the sequence of which  
8 the events occurred surrounding the accident. In the first  
9 meeting I had with Mr. Dieckamp the charge was stated there  
10 that "tell it like it is essentially," which was a statement  
11 that was made. "The accident has happened; it is up to us  
12 now to impart the knowledge we gain here to the rest of the  
13 industry. And we want to know exactly what happened regard-  
14 less of where the consequence of that takes us."

15 Q. Mr. Van Witbeck, in response to Judge Wolfe's  
16 questions regarding the subject of withholding information,  
17 you used the term "to my recollection, no one indicated that  
18 he had withheld information about events during the course  
19 of the accident."

20 Do you believe today that if someone had indicated to  
21 you that he withheld information about the accident events,  
22 that you would recall it?

23 A. Yes.

24 MR. BLAKE: Thank you. I have no further questions.

25 JUDGE SMITH: Miss Bernabei?

*Esbeck*



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## CROSS-EXAMINATION

BY MS. BERNABEI:

Q. Mr. Van Witbeck, your group, the AAG, did not do any of the investigation or inquiry into whether information was withheld during the accident; is that correct?

A. Not as a specific investigation; that is correct.

Q. Did you personally do any investigation into whether information was withheld during the accident; that is, outside your duties as the Director of the AAG?

A. We did not look at anybody with respect to withholding information, but the cross-correlations that we were doing with respect to testimony on instrumentation and other records would indicate anomalies or difference between testimonies, and we would look at those.

Had somebody withheld information at that point it would have been, I believe, recognized by us. We could not though do that as a primary goal.

Q. You are talking about withholding information from you at the point of your analysis; is that correct?

A. Surrounding the sequence of events that happened; that is correct.

Q. You are not talking about withholding on March 28th; that's fair to say? You are talking about withholding information from site or licensee personnel to you in your investigative role?

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1           A. With regard to the events that happened and what  
2 transpired, but had they withheld information on that day  
3 and made it known to me later, that would have shown up in  
4 the cross-correlation of the testimony from other people.

5           Q. It may not have; is that correct?

6           A. Say again.

7           Q. It may not have as well?

8           A. That is true. That was not our function, as I  
9 so indicated.

10          Q. The sequence of events to which you earlier referred,  
11 starting with the preliminary sequence of events issued on  
12 July 16, 1979 -- I believe that was Revision 1; do you  
13 remember?

14          A. That may be true. I don't have records that would  
15 indicate that here with me.

16          MS. FINKELSTEIN: Excuse me, Judge Smith. I think  
17 Mr. Van Witbeck testified earlier that the first draft  
18 was published on April 16th.

19          MS. BERNABEI: It is Revision 1; it would be the  
20 second draft.

21          BY MS. BERNABEI:

22          Q. Is it fair to say that the second draft, the one  
23 issued on July 16th, 1979, as well as the further draft,  
24 indicate the sequence of events only of -- is constituted of  
25 events which could be proven or demonstrated from direct

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1 indicators of the plant; is that correct?

2 A. No.

3 Q. Would it be fair to say that it does not include  
4 events which must be described or drawn from inferences or  
5 conclusions from direct indicators?

6 A. Yes.

7 Q. Isn't it fair to say, therefore, the sequence of  
8 events would not include a description of operators' interpre-  
9 tations of the pressure spike at 1:50 p.m.?

10 That is an inference or a conclusion drawn from the  
11 events which occurred at that time?

12 A. Yes.

13 Q. Just so I understand your testimony, therefore the  
14 sequence of events does not include any description or other  
15 explanation or interpretation of the pressure spike which  
16 occurred at 1:50 p.m.?

17 A. Restate the question.

18 Q. The sequence of events, either the revision one  
19 to which I referred or any later revisions, do not refer  
20 or describe any site personnel appreciation of the pressure  
21 spike which occurred at 1:50 p.m.?

22 A. Correct.

23 Q. You spoke about Mr. Henry from Rockwell International,  
24 and you referred to his calculations in your testimony; is  
25 that correct?



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1           A. I referred to Mr. Henry as the source of calculations  
2 which I was exposed to, yes.

3           Q. If you know, then Mr. Henry and his company, Rockwell  
4 International, was brought in in order, at least in part, to  
5 install or begin operation of the hydrogen recombiner; is  
6 that correct?

7           A. I did not know that.

8           Q. Do you know when Mr. Henry was first contacted in  
9 order to assist the plant during the accident?

10          A. No, I do not.

11          Q. Do you know the date of the calculations with  
12 which you were provided for the period April 2nd through  
13 April 4th?

14          A. Mr. Henry made those calculations in that time  
15 period.

16          Q. During April 2nd through April 4th?

17          A. Yes.

18          Q. Do you know if he made those calculations at  
19 any earlier time?

20          A. I do not.

21          Q. Did he indicate or state to you anything which would  
22 suggest that he had?

23          A. I don't recall anything of that nature.

24          Q. There was some discussion with Judge Linenberger  
25 about the EPRI study. Is it fair to say that the EPRI study

1 relied only on hard data and not on operators' interviews,  
2 as did your own analysis?

3 A. I do not recall the basis for their study, although  
4 they were, indeed -- we made our records available to them.  
5 I do not know whether they included operator interviews or  
6 not.

7 MS. BERNABEI: I have no further questions.

8 JUDGE SMITH: Mr. Au?

9 MR. AU: I have no questions.

10 JUDGE SMITH: Mr. Goldberg?

11 MS. FINKELSTEIN: May we have a moment please?

12 JUDGE SMITH: Yes.

13 (Pause.)

14 JUDGE SMITH: Are you ready to proceed?

15 MS. FINKELSTEIN: Yes, we are.

16 RE-CROSS-EXAMINATION

17 BY MS. FINKELSTEIN:

18 Q. Mr. Van Witbeck, I believe in response to a  
19 question posed to you by Judge Linenberger, you testified  
20 that the sequence of events of March 20, 1979 was published  
21 on April 16th, 1979; is that correct?

22 A. Yes.

23 Q. Were there any supplements published between April  
24 16, 1979 and May 9, 1979?

25 A. The next publication that I am aware of, or that

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1 I recall, would be the preliminary annotated sequence of  
2 events of March 28, 1979, Rev-O, dated May 10th.

3 We would have been working on a revision that may have  
4 been given to an individual to comment upon, but I cannot  
5 recall. That was just our practice with respect to something  
6 we may have referenced to an operator, or an operator action  
7 where they had concern about our preliminary sequence.

8 Q. Were there drafts to the May 10th revision given  
9 to Mr. Dieckamp?

10 A. I cannot say right now. I would assume that he got  
11 one from the normal distribution. My only knowledge that  
12 I have specific reference to right now is the preliminary  
13 sequence of events.

14 MS. FINKELSTEIN: Judge Smith, we think the April 16th,  
15 1979 publication should be entered into evidence. We have  
16 spoken to the licensee and they have no objection to that.

17 JUDGE SMITH: Why?

18 MS. FINKELSTEIN: At this time we intend to question  
19 Mr. Dieckamp on whether he relied on that document, and this  
20 is the author of that document, the primary author.

21 JUDGE SMITH: Any objections?

22 MS. BERNABEI: I have an objection in that Mr. Van  
23 Witbeck originally testified to a later sequence of events,  
24 as we have been told, than this sequence of events; and, in  
25 fact, it did not deal with operators' and site personnel's



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1 understanding of the pressure spike, but merely listed the  
2 sequence of events. It seems to me if there is some appropriate  
3 questioning of Mr. Dieckamp, I would have no problem at that  
4 time, but I believe in terms of Mr. Van Witbeck it has no  
5 relevance to his testimony.

6 JUDGE SMITH: This is going to be the opportunity,  
7 since Mr. Van Witbeck is on the stand, to ask questions about  
8 the exhibit.

9 MS. BERNABEI: I don't have any questions for Mr.  
10 Van Witbeck.

11 JUDGE SMITH: Do you have questions?

12 MS. BERNABEI: I have already established what I want  
13 to establish about the sequence of events.

14 JUDGE SMITH: We are talking now only in the context  
15 of should the exhibit be admitted.

16 MS. BERNABEI: I would have an objection to its  
17 introduction as being irrelevant.

18 JUDGE SMITH: Overruled.

19 Are there any further questions of Mr. Van Witbeck?

20 (No response.)

21 JUDGE SMITH: You may step down, sir. Thank you.

22 (Witness excused.)

23 MS. FINKELSTEIN: Do you have copies available?

24 MR. BLAKE: I don't have a copy here. I will attempt  
25 to obtain copies.

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1 MS. BERNABEI: If I could just state that this witness  
2 has not even identified the document.

3 JUDGE SMITH: That wasn't your objection. That was  
4 exactly the point I was discussing with you. You persisted  
5 on your objection based on relevance. I pointed out to you  
6 that it was brought up now because of his presence, and you  
7 said no, it is irrelevant.

8 Do you want to revisit your objection? Did I cut you  
9 off too short, or what?

10 MS. BERNABEI: There is not any motion to admit this  
11 into evidence. It is not received.

12 JUDGE SMITH: I misunderstood. I had understood  
13 that she moved that the matter be offered into evidence, and  
14 there was argument on it, and I gave you an opportunity to  
15 discuss the exhibit vis-a-vis a sponsor being on the stand.  
16 You rejected that opportunity and presented the relevancy  
17 objection, which we ruled on.

18 Now I don't know; what do you want?

19 MS. BERNABEI: I didn't hear a formal motion made.

20 JUDGE SMITH: Is that your objection?

21 MS. BERNABEI: That was one of my objections. We  
22 have no identification. We do not have the document present,  
23 and we have had no identification by the witness.

24 JUDGE SMITH: Those are pretty good objections. Now  
25 are there any other objections?

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1 MS. BERNABEI: If I understand correctly, what Ms.  
2 Finkelstein represented was not a formal motion for the intro-  
3 duction of the exhibit over my objection.

4 JUDGE SMITH: All right. I guess the the objection  
5 then -- if it is a formal motion for the document, the  
6 objection will have to be sustained, but we will reconsider  
7 it.

8 Are you paying attention?

9 MS. FINKELSTEIN: Yes, we are. We would like to see  
10 some point where we could introduce the document. At that  
11 point we would like to make a formal motion to move it into  
12 evidence.

13 JUDGE SMITH: Then we will come back to it. In the  
14 meantime, I would expect you to, number one, let us know your  
15 thoughts, if possible, informally as to the authenticity of  
16 the document, Ms. Bernabei. Then when we have a formal offer  
17 we will see what the situation is. I don't think we should  
18 take time to establish authenticity when it is not really in  
19 dispute.

20 MS. BERNABEI: I agree with that.

21 JUDGE SMITH: Is there anything further of Mr. Van  
22 Witbeck?

23 (No response.)

24 JUDGE SMITH: Do you have a report about the possible  
25 availability of Dr. Zebroski?



1 MR. BLAKE: I do not have a report now.

2 JUDGE SMITH: Is there any possibility that since  
3 we have a large number of plant personnel who are scheduled  
4 to testify, is there any possibility that one or more of  
5 those can be produced this afternoon?

6 Has that been discussed?

7 MR. BLAKE: I do not know the answer. I attempted  
8 after we went off the record last night to ask Ms. Bernabei  
9 about the schedule of witnesses and the ones she wanted to  
10 call, and her response was that: in view of the Dieckamp thing  
11 I refuse to talk about the scheduling of witnesses.

12 MS. BERNABEI: That's correct.

13 JUDGE SMITH: I am asking you to be much more flexible  
14 about your approach to the scheduling of witnesses. We are  
15 dealing with a large number of witnesses. You will have to  
16 be more flexible. I do not want to see this come up again  
17 where there have been no plans. There are a large number of  
18 witnesses who are available or who have to be heard from,  
19 and there are no plans to have standby provisions. You  
20 will have to be flexible.

21 MS. BERNABEI: I am flexible. The problem is that  
22 the licensee has not been flexible in providing witnesses  
23 in accordance with prior notice. We were also very flexible  
24 in having a prehearing conference in five hours.

25 JUDGE SMITH: I think you are being impertinent.

1 MS. BERNABEI: No, I'm not.

2 JUDGE SMITH: I am admonishing you.

3 MS. BERNABEI: We would be willing to go forward with  
4 our witnesses given adequate time for preparation. We have  
5 no problem in providing an order of witnesses if we are  
6 permitted the same leeway as the licensee to change that  
7 order, depending on accommodations.

8 JUDGE SMITH: We are requesting of you and the licensee  
9 and all parties to have open continuous discussions on  
10 changing the schedule of the appearance of witnesses. We  
11 insist upon it. It is our right to require this discussion,  
12 and you must do it. All of you must do it; and if you fail  
13 to do it, we will take appropriate action.

14 The appropriate action could range from not permitting  
15 a particular witness to appear to something less, but you  
16 must discuss in good faith flexibility of the appearance of  
17 witnesses.

18 We will return here at 1:30. If there is other  
19 business that can be accommodated, if you learn that Dr.  
20 Zebroski can appear or if you learn that another witness from  
21 the site of the plant can appear, we will consider that.  
22 Otherwise we will begin with the testimony of Mr. Dieckamp.  
23 To the extent possible, we will accommodate you by asking  
24 Board questions first and other parties' questions first.

25 In the meantime, we are aware that there is a

1 logistics problem in that you don't have documents that you  
2 need. I am aware that there is at least one set of those  
3 documents in the hearing room which are indicated for Board  
4 use, and we don't need them now, so those are at least avail-  
5 able to you.

6 Is there anything else that we can do to be helpful?

7 MS. BERNABEI: I don't believe that there is adequate  
8 time to have the documents available at this time. Secondly,  
9 there are other documents associated with Mr. Dieckamp that  
10 I do not have available, that are in my office.

11 JUDGE SMITH: It may very well be that we will have  
12 to defer that aspect of the cross-examination. We will take  
13 relief as it is required. We will consider relief as it is  
14 required. In the meantime, it is 10:40. I think that will  
15 give you adequate time to organize your cross-examination.  
16 We will return at 1:30.

17 (Whereupon, at 11:40 a.m. the hearing was adjourned,  
18 to be reconvened at 1:30 p.m. this same day.)  
19  
20  
21  
22  
23  
24  
25



AFTERNOON SESSION

(1:30 p.m.)

1  
2  
3 JUDGE SMITH: We are ready to begin.

4 I infer from the presence of Mr. Dieckamp on the  
5 witness seat that no other witness was available for this  
6 afternoon.

7 MR. BLAKE: We attempted to reach Dr. Zebroski. We  
8 tried his office. We tried the hotel. We tried the offices  
9 in Washington. We also tried his counsel in the off chance  
10 that he might know where he was, and we were unable to locate  
11 Dr. Zebroski over this break.

12 JUDGE SMITH: And you are not able to agree on any  
13 other witness?

14 MR. BLAKE: No. Prior to leaving I asked Ms. Bernabei  
15 if she wanted me to check on the availability of any others,  
16 and she said she would call if that was the case. I did not  
17 hear from her.

18 MS. BERNABEI: I determined it was more appropriate  
19 and worth more of my time to prepare for Mr. Dieckamp since  
20 there was no assurance of anybody else being available.

21 JUDGE SMITH: Fine; I appreciate that.

22 You may proceed, Mr. Blake.

23 Mr. Dieckamp, you will recall that you testified  
24 earlier in this proceeding, and you appreciate that you are  
25 still under oath?

1 MR. DIECKAMP: Yes, I do.

2 Whereupon,

3 HERMAN M. DIECKAMP

4 resumed the stand and, having been previously duly sworn,  
5 was examined and testified further as follows:

6 MS. BERNABEI: Chairman Smith, before we start with  
7 Mr. Dieckamp's testimony, can we put on the record the speci-  
8 fic ways in which we are prejudiced?

9 I did not get that Kemeny folder of documents which  
10 we did not have available during our preparation time, and  
11 I would like to list them for the Board.

12 JUDGE SMITH: I would like to ask you to wait until  
13 the actual moment of prejudice arrives.

14 MS. BERNABEI: Thank you.

15 DIRECT EXAMINATION

16 BY MR. BLAKE:

17 Q Mr. Dieckamp, will you please state your full name  
18 and business address?

19 A Yes. My name is Herman M. Dieckamp. I am Presi-  
20 dent and Chief Operating Officer of General Public Utilities.  
21 My business address is 100 Interpace Way, Parsippany,  
22 New Jersey.

23 Q Mr. Dieckamp, do you have before you a copy of a  
24 document dated November 1, 1984, titled "Testimony of Herman  
25 M. Dieckamp," which is comprised of some 20 pages of text and

1 two attachments?

2 A. Yes, I do.

3 Q. Have you made corrections to this document on  
4 pages 15 and 17?

5 A. Yes, there are two corrections that I would make.

6 Q. You don't need to identify them at this point, as  
7 long as you agree that there have been two changes made, one  
8 each on those pages.

9 A. Yes; that is correct.

10 Q. With those changes, do you adopt this document as  
11 your testimony in this proceeding?

12 A. I do.

13 MR. BLAKE. Mr. Chairman, the parties and the Board  
14 have been alerted to the changes, and the copies provided to  
15 the court reporter reflect those changes.

16 I ask that the document entitled "Testimony of Herman  
17 M. Dieckamp" be physically incorporated in the record just as  
18 though read.

19 CHAIRMAN SMITH: Other than the objection you have as  
20 to the timing of Mr. Dieckamp's testimony, are there any ob-  
21 jections to this testimony?

22 MS. BERNABEI: Yes, there are specific portions which  
23 I will move to strike at this time.

24 On page 18, the first sentence, in which Mr. Dieckamp  
25 indicates his understanding of the meaning of the mailgram or



1 the portion of the mailgram.

2 TMIA requested that Commissioner Gilinsky, who re-  
3 ceived the mailgram, be granted permission to testify on his  
4 understanding of the mailgram. The Board determined that  
5 that would be irrelevant; that is, the understanding of the  
6 recipient of the mailgram is irrelevant to its decision.

7 I think, similarly, licensee should not be able to  
8 present information as to Mr. Dieckamp's understanding of the  
9 meaning of the mailgram.

10 I think in order to determine Mr. Dieckamp's state of  
11 mind in a fair way, his opinion as to what it meant and his  
12 expectation of how it would be received by Dr. Gilinsky and  
13 Congressman Udall is relevant information.

14 If former Commissioner Gilinsky is unable to testify,  
15 we do not believe that Mr. Dieckamp and licensee should be  
16 able to present information of this sort.

17 JUDGE SMITH: You're making this objection, and in the  
18 context of our earlier ruling we do not believe that your  
19 offer of Commissioner Gilinsky's view of his interpretation  
20 of the mailgram was relevant to Mr. Dieckamp's state of mind.

21 Is that the ruling that you are alluding to?

22 MS. BERNABEI: Yes. My proffer to you is that the  
23 recipient of the mailgram has information -- that is,  
24 Dr. Gilinsky has information about Mr. Dieckamp's state of  
25 mind from prior conversations about the subject of the mailgram.

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1 JUDGE SMITH: Ms. Bernabei, I'm going to ask you now,  
2 please, to not again misrepresent our ruling. I'm going to  
3 review once more our ruling.

4 We did not rule that Commissioner Gilinsky could not  
5 come to the hearing because the information that he had was  
6 not relevant to the mailgram.

7 We ruled that you cannot offer his testimony in lieu of  
8 written testimony as a matter, incidentally, because of two  
9 reasons; one reason was that the major portion of his testi-  
10 mony was known to you, but you declined to reveal it. The  
11 other reason was that the balance of his testimony, you did  
12 not know what it was.

13 That was the reason. It was not the purpose that you  
14 stated.

15 Having made the ruling, I assure you that that is it.

16 Now, as I understand your position in this case, you  
17 hope to demonstrate that Mr. Dieckamp lied; is that correct?

18 MS. BERNABEI: He either knew the statements were  
19 false, or he should have known that the statements were  
20 false. That is correct.

21 JUDGE SMITH: At this point you are not going to assert  
22 that he lied, however?

23 MS. BERNABEI: I think that is the same as making a  
24 statement that he knew it was false.

25 JUDGE SMITH: With that in mind, that he knew it was

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1 false, I call that lying. With that in mind, is it really  
2 your position then that this man should not be allowed to  
3 take the witness stand and explain what was on his mind when  
4 he sent that mailgram? Is that your position? And if it is,  
5 I want to know: is that your view of a fair hearing?

6 MS. BERNABEI: No. My view of a fair hearing is both  
7 Mr. Dieckamp and other parties' witnesses should be able to  
8 explain their understanding of the mailgram. We are talking  
9 about a recipient in the mailgram.

10 JUDGE SMITH: Your objection is overruled.

11 MS. BERNABEI: At page 19, I move to strike the third  
12 and fourth sentences in the first full paragraph, beginning  
13 with, "In a public meeting before the NRC Commissioners on  
14 October 14, 1981." Again, we were foreclosed from presenting  
15 evidence as to Gilinsky and Bradford's knowledge and opinion  
16 about that meeting and the statements made at that meeting.

17 Similarly, Mr. Dieckamp should not be permitted to  
18 give that testimony.

19 I would also refer, Chairman Smith, to your statement  
20 during a prehearing conference that the transcript of that  
21 meeting is the best evidence of that meeting.

22 JUDGE SMITH: That is correct. I think that this may  
23 be one of several items that would be subject to the same  
24 type of ruling.

25 There is no doubt that we did make a ruling that the



1 transcript of the Commission's meeting is the best evidence  
2 of what happened at that meeting. We would not hear from  
3 Commissioners Gilinsky and Bradford to tell us what the  
4 transcript says. Similarly, the same logic would apply to  
5 Mr. Dieckamp.

6           However, before we rule on that I would like to hear  
7 the rest of your objections, because I think you may have  
8 other related objections.

9           MS. BERNABEI: A large part of Mr. Dieckamp's testimony  
10 -- and I haven't outlined the specific pages -- has to do  
11 with the discussion of public interviews; that is, interviews  
12 conducted by the NRC, the Special Inquiry Group and other  
13 bodies and investigations into the accident.

14           I think to the degree that Mr. Dieckamp is allowed to  
15 discuss them, other witnesses should be allowed to discuss  
16 them as well, including the two Commissioners who we proposed  
17 be allowed to testify.

18           Mr. Bradford in his deposition identified two memoran-  
19 dums he had sent to the staff which discussed in part inter-  
20 views conducted in the course of the NRC investigations into  
21 the accident, and his opinion as to what those interviews  
22 show.

23           If Mr. Dieckamp is permitted to discuss those very  
24 same interviews and offer his opinion as to those interviews,  
25 so should Commissioner Gilinsky and Commissioner Bradford.

1           In the same vein, on page 19 of Mr. Dieckamp's testi-  
2 mony, specifically sentence three which appears in the last  
3 paragraph on that page, which begins, "I continue to believe,"  
4 as well as the last sentence, which begins, "By the same  
5 token," and continues on to the sentence on page 20 where  
6 Mr. Dieckamp clearly offers an opinion to the Board as to how  
7 he believes the Board should rule on his and the corporation's  
8 integrity, he is allowed to offer his opinion as to his own  
9 integrity and the corporation's integrity; and I believe  
10 similarly the Commissioners who received the information  
11 should be allowed to offer their opinions.

12           JUDGE SMITH: Ms. Bernabei, I want to return once  
13 more. Would you please address my point exactly. When did  
14 you proffer testimony from anybody which would go directly  
15 to Mr. Dieckamp's integrity? I don't recall. Would you tell  
16 me when that happened?

17           MS. BERNABEI: Yes. In former Commissioner Bradford's  
18 deposition, we asked him specifically how he believed the  
19 mailgram and the information he came to possess at the time  
20 he was Commissioner and thereafter reflected on Mr. Dieckamp's  
21 integrity.

22           He stated clearly in his deposition that Mr. Dieckamp  
23 should have known of this information that had been uncovered  
24 in the course of NRC investigations and discovery proceedings  
25 in this case. He said clearly he did not believe it reflected

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1 well on Mr. Dieckamp as a utility official, just as it  
2 wouldn't reflect very well on those officials before whom he  
3 has jurisdiction as Chairman.

4 JUDGE SMITH: Does the word "integrity" appear any  
5 place in Commissioner Bradford's deposition?

6 MS. BERNABEI: Yes. In answer to specific questions  
7 posited to Commissioner Gilinsky on Mr. Dieckamp's integrity,  
8 he answered the question I just stated.

9 JUDGE SMITH: And I don't think he accepted your ver-  
10 sion of integrity. In any event, it was clear that  
11 Commissioner Bradford, other than reading reports, had no  
12 information about Mr. Dieckamp's personal integrity other  
13 than the reports which are available to the Board to interpret.

14 Is it your representation that Commissioner Gilinsky  
15 is going to testify about Mr. Dieckamp's integrity?

16 MS. BERNABEI: Yes.

17 JUDGE SMITH: When did you proffer that?

18 MS. BERNABEI: It's one of the questions we intended to  
19 ask.

20 JUDGE SMITH: When did you tell us that?

21 MS. BERNABEI: In the pleading filed with our motion  
22 to present testimony.

23 JUDGE SMITH: I don't recall that. You had a lot of  
24 opportunity to tell us what Commissioner Gilinsky would testi-  
25 fy about with respect to his personal factual knowledge of



1 Mr. Dieckamp and his statements. The only thing which you  
2 proffered to us was what inferences Commissioner Bradford or  
3 Commissioner Gilinsky would draw from public documents.

4 MS. BERNABEI: That is not correct. I just want to  
5 correct the record. With regard to the deposition which  
6 this Board had before it and has today before it, I asked  
7 the specific opinion of Mr. Bradford based on documents,  
8 investigations, his experience as a Commissioner and his  
9 view and observation of Mr. Dieckamp in the October 14, 1981  
10 Commission meeting.

11 He gave his opinion as to how the mailgram reflected  
12 on Mr. Dieckamp's integrity. It is in the record.

13 JUDGE SMITH: I did not read his deposition that way,  
14 and I really doubt whether Commissioner Bradford intended it  
15 that way.

16 Nevertheless, we do have a problem. That is,  
17 Mr. Dieckamp has, in his testimony, incorporated the product  
18 of other investigations and other reports, and as you point  
19 out in the one paragraph he has incorporated the transcript  
20 from the Commission's meeting.

21 Before we go on, I think we should hear from Mr. Blake.

22 MR. BLAKE: Judge Smith, Mr. Dieckamp stands peculiarly  
23 equipped to address these subjects and their impacts on him.  
24 If Ms. Bernabei is willing not to pursue the question of  
25 whether or not Mr. Dieckamp, subsequent to sending his

1 mailgram, should have corrected it, then I would be willing  
2 to take a break and review Mr. Dieckamp's testimony with him  
3 with that in mind.

4 But I find it extraordinary that if that issue remains,  
5 that is not only what information he had available to him at  
6 the time he sent his mailgram, but the question of whether or  
7 not, as subsequent information became available to him, he  
8 should have corrected it, that he would not be allowed now  
9 to state what that information was or how he reached it or  
10 how it impacted on his judgment, I just can't follow. I just  
11 don't know what better evidence there is on that issue.

12 MS. BERNABEI: It seems to me that my complaint is not  
13 with the issue -- I think it is very relevant; In fact, I  
14 think it is very relevant to the corporation today in defend-  
15 ing its position, which we don't think is defensible if the  
16 mailgram is accurate.

17 What I am complaining about is that we are unable to  
18 present witnesses who would similarly testify. Licensee is  
19 the only one that has been allowed to present a witness to  
20 testify as to their opinion, an opinion of Mr. Dieckamp's  
21 integrity in this matter.

22 JUDGE SMITH: It was on the basis that the reference  
23 to other reports and interviews form the foundation for  
24 Mr. Dieckamp's state of mind subsequent to the mailgram and,  
25 in fact, really for Mr. Dieckamp's state of mind as he sits

1 here today, that we believe for that purpose his references  
2 to other investigations and other interviews was appropriate.

3 This would be independent of the accuracy of those  
4 interviews and reports, because maybe they go to what  
5 Mr. Dieckamp has believed during the period he has been under  
6 accusation, and, in fact, what he believes today.

7 That is somewhat different than offering those inter-  
8 views for the truth of them.

9 However, there are other areas of consideration, too,  
10 which the Board has looked at and considered. We anticipated  
11 objection along this line. As a matter of fact, we inde-  
12 pendently raised the matter on our own in discussion.

13 True, some of these interviews, the products of them,  
14 could be produced through the stipulation and through other  
15 sources. But you are not approaching it that way. You have  
16 agreed upon a large number of stipulated documents.

17 Moreover, to the extent that the accuracy of some of  
18 these statements might be raised as far as you are concerned,  
19 we can explore that and confront that in any manner that  
20 might be appropriate. But we have, in my experience with the  
21 Nuclear Regulatory Commission, and I think for the first time  
22 in this agency, a high official controlled by the licensing  
23 process who has been accused of lying; he is accused of lying  
24 as he sits here today. Not only that, but he has been publicly  
25 accused of lying and the accusation has had widespread



1 publicity. The effect upon him and his employer is very  
2 important.

3 I believe that although some of the arguments he makes  
4 in his testimony could have easily been made by counsel, I  
5 think that latitude should be given to Mr. Dieckamp to state  
6 in his own words why he believes what he does.

7 We see no evidentiary prejudice to you. We see it as  
8 a sense of fairness.

9 If you believe, for example, that this statement that  
10 he quotes from the October 14, 1981 meeting before the  
11 Commissioners was inaccurate, you can approach it; but I  
12 think he has a right to tell his story cohesively in a forum  
13 such as this.

14 In support of that right, and only in part for that  
15 reason, we overrule your objection.

16 MS. BERNABEI: Judge Smith, in response to your state-  
17 ment may I just state that we are concerned, as an intervenor  
18 in a licensing proceeding, not with Mr. Dieckamp's personal  
19 integrity. While we may have some sympathy for him in this  
20 situation, we think there is a much more important issue that  
21 is before the Board, and that is the corporate integrity of  
22 the licensee.

23 JUDGE SMITH: Repeatedly we have listened to your  
24 arguments along that line, and repeatedly we have ruled the  
25 scope of that as being outside the scope.

1           Now, Ms. Bernabei, did you understand that the first  
2 time we ruled that?

3           MS. BERNABEI: I still --

4           JUDGE SMITH: Did you understand that the first time  
5 we ruled that in our first prehearing conference in the  
6 North Building of --

7           MS. BERNABEI: I understood that your finding was what  
8 Mr. Dieckamp knew or should have known. I did not understand  
9 the issue before this Board to be his personal integrity.

10          JUDGE SMITH: You never understood that.

11          MS. BERNABEI: No. I understand --

12          JUDGE SMITH: I find that virtually incredible. I  
13 think we have stated it several times. In any event, let us  
14 understand it today; that the issue has been the state of  
15 mind of a person, the personal integrity of Mr. Dieckamp.

16          Do you remember us using the word "corporate scientia"  
17 every in any of our orders?

18          (No response.)

19          JUDGE SMITH: Do you remember us using the words  
20 "careless disregard" as compared to "corporate scientia"?  
21 Do you remember hearing that discussion?

22          If not, you have been negligent in your preparation  
23 for this case.

24          But we begin today, at this moment, with the under-  
25 standing that the issue is the personal integrity of

1 Mr. Dieckamp.

2 I have accepted your representation that you did not  
3 understand the scope of the issue. I doubt if we will con-  
4 tinue to accept your representation if it goes beyond the  
5 scope of the issue in that fashion much more. It is very hard  
6 to accept your representation now.

7 MS. BERNABEI: Let me state my position very clearly.  
8 Our position is that the issue before this Board is  
9 Mr. Dieckamp's personal state of mind. That is only impor-  
10 tant to the Licensing Board of the Nuclear Regulatory Commis-  
11 sion because of corporate integrity.

12 I think the Appeal Board was very clear that what it  
13 cared about in remanding this issue to this Licensing Board  
14 was the corporate integrity and Mr. Dieckamp's continuing  
15 position in the company as President of GPU and his likely  
16 influence over GPU Nuclear, the licensee.

17 I continue to understand that that is the Appeal  
18 Board's ruling.

19 JUDGE SMITH: Do you understand what our point has  
20 been from the beginning?

21 MS. BERNABEI: Yes.

22 JUDGE SMITH: Do you understand what it is today?

23 MS. BERNABEI: Yes.

24 JUDGE SMITH: Do you have any other objections?

25 MS. BERNABEI: As to specific portions of his testimony?



1 JUDGE SMITH: Yes, before we receive it into evidence,  
2 if we do.

3 MS. BERNABEI: Those are the specific portions I would  
4 move to strike at this time.

5 JUDGE SMITH: For the reasons stated, your motion to  
6 strike is denied. The objection is overruled.

7 Are there any other objections?

8 (No response.)

9 JUDGE SMITH: The testimony is received.

10 (The document follows:)

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Exhibit  
Gearcase  
25% cotton

November 1, 1984

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-Management Remand)
(Three Mile Island Nuclear	)	
Station, Unit No. 1)	)	

TESTIMONY OF HERMAN M. DIECKAMP

My name is Herman M. Dieckamp. I am president and chief operating officer of General Public Utilities and of the GPU Service Corp. GPU is a holding company, whose subsidiaries Jersey Central Power and Light, Metropolitan Edison, and Pennsylvania Electric are the owners of Three Mile Island. I am a director of all of GPU's subsidiaries which also include GPU Nuclear and the GPU Service Corp. At the time of the accident at TMI-2, I held these same positions with the exception of director of GPU Nuclear which did not then exist. In the intervening time since the accident, I was the chairman and chief executive officer of GPU Nuclear from its inception until February 1984. GPU Nuclear became the approved operating Licensee of TMI in January, 1982.

I graduated from the University of Illinois in 1950 with a Bachelor of Science Degree in Engineering Physics. After school I joined North American Aviation which became Rockwell International. My work experience started with radiation damage to materials and progressed to reactor development in sodium cooled reactors, space reactors, and fast breeder reactors. In 1970, I became president of the Atomics International Division of Rockwell International. I joined General Public Utilities in 1973 and was within a period of about one year appointed to the positions I held at the time of the accident.

The purpose of my testimony is to provide information in response to the Appeal Board's view expressed in the ALAB-772 that:

The record -----[is]--- incomplete with regard to the circumstances surrounding a mailgram sent by GPU president Herman Dieckamp to Congressman Morris Udall.

In its discussion of this subject the Appeal Board noted:

Moreover, the scope of the Board's inquiry is relatively limited. As we pointed out at note 103, supra, the focus should be on:

- (1) Whether anyone interpreted the pressure spike and containment spray, at the time, in terms of core damage, and (emphasis in original)
- (2) Who or what was the source of the information that Dieckamp conveyed in the mailgram?



The Licensing Board in a prehearing conference order on July 9, 1984 added a third facet:

- (3) Whether, when, and how any interpretation of core damage was communicated to Mr. Dieckamp.

This testimony addresses my knowledge about the questions that have been raised concerning my May 9, 1979 mailgram to Congressman Udall.

By way of background, on May 7, 1979, Congressman Udall, Chairman of the Subcommittee on Energy and the Environment of the House Committee on Interior and Insular Affairs, a number of subcommittee members, local congressmen, subcommittee staff, and NRC Commissioner Victor Gilinsky visited Three Mile Island. I had been in communication with committee staff to arrange the visit and participated in the briefing and the tour. I have not been able to reconstruct the specific agenda or recall all of the participants but I do recall the tour of the TMI-2 control room that was conducted by Mr. James Floyd who was at that time TMI-2 supervisor of operations. In the course of that tour which took the form of a general recreation of the accident and operator action, Mr. Floyd made mention of a pressure spike which occurred about 1:50 p.m. on March 28, 1979 and also noted that the pressure spike had initiated the containment building spray. As I recall, he identified the containment building pressure recorder and discussed the conclusion that

the pressure spike was not a spurious electrical signal because spray initiation required coincidence of at least two pressure indicators. He also stated that the pressure spike and the operator action to turn off the containment spray was in full view of an NRC inspector. (It should be noted that Mr. Floyd was not on the TMI site at the time of the pressure spike). This portion of the tour was reported on with some detail in an article in the New York Times on the next day, May 8, 1979. The article was entitled "Lag in Reporting Reactor Damage Laid to Experts" and stated in the lead sentence:

A technician from the Three Mile Island nuclear plant told Congressmen today that control room personnel and Federal inspectors knew that the plant's fuel core was seriously damaged two days before the damage was formally reported and the seriousness of the accident made public.

The pressure spike was cited as the basis for this statement. A copy of the May 8, 1979 New York Times article is attached.

I was disturbed by the article because my own awareness indicated that the reporting of the pressure spike and its significance reflected the actual delayed recognition of the severity of core damage that had occurred during the accident. As a result, I sent a mailgram to Congressman Udall with a copy to Commissioner Gilinsky that stated my belief:

There is no evidence that anyone interpreted the 'pressure spike' and the spray initiation in terms of reactor core damage at the time of the spike nor that anyone withheld any information.

A copy of the mailgram is attached.

The mailgram reflected my own understanding of the positive discovery and interpretation of the pressure spike. I first became aware of core damage beyond local failed fuel when I was informed of the pressure spike, the postulated mechanism of a hydrogen "explosion", and the reaction of zirconium and water as the source of hydrogen. This information came to me sometime on Friday, March 30, 1979. Prior to this time, my conversations with state, NRC, and company personnel and my attendance at the Herbein congressional visitors briefing on March 29, 1979 had given me a sense of local and limited fuel damage. At no time on March 28 or 29 did anyone mention to me core temperatures in excess of 2000°F, pressure spike, zirconium-water reaction, hydrogen, or core damage beyond failed fuel.

On March 28, 1979, I was in Harrisburg, Pa. for a meeting with the Pennsylvania Public Utilities Commission. My recollection of specific interactions and information opportunities during March 28 and immediately thereafter can be summarized as follows:



March 28, 1979

- 1) At 9:00 a.m. on March 28, 1979, W. Creitz gave me the first notification of problems at TMI-2. My notes indicate a feed pump trip at 4:00 a.m.; reactor trip; primary (pressure) relief; (drain tank) disk rupture; 30,000 gallons (of water relieved to the containment building basement); and 1# pressure (in the containment building). Creitz also mentioned failed fuel. I indicated that that would not seem possible if the emergency systems worked as intended. I gained the impression that the emergency systems had functioned as intended.
- 2) Shortly after talking with Creitz, I talked with R.C. Arnold who was in Parsippany, N.J. I remember asking him about the emergency systems and failed fuel but I did not get the sense that Arnold possessed added knowledge about the situation.
- 3) At about 9:15 a.m., I made a brief statement concerning TMI-2 to the Pennsylvania Public Utilities Commission (PaPUC).
- 4) I attended a press briefing by Lt. Gov. Scranton and staff at about 11:00 a.m. I left this briefing with a sense of reassurance that the plant's emergency systems had functioned properly.

- 5) I made further comment on TMI-2 to the PaPUC at about noon. I think I spoke with Creitz and/or Arnold just prior to these second comments.
- 6) I spoke with some members of the Lt. Governor's staff at about 2:00 p.m. I learned nothing about the status of the plant but heard some comments about radiation measurements. I am unable to reconstruct the specifics of the comments but I was puzzled that the comments did not make a lot of sense to me. I had hoped to sit in on the briefing of the Lt. Governor by TMI personnel but I was asked to leave.
- 7) At about 2:30 p.m., I encountered Herbein, Miller and Kunder on the steps of the Pennsylvania State Capitol. They were on their way to brief the Lt. Governor. Our conversation was extremely brief. I expressed concern about the absence of senior people from the plant. I recall no detailed discussion of plant parameters or conditions but gained the impression that the plant was stable.
- 8) Sometime in the early evening, after returning to my home in New Jersey, I spoke with R.C. Arnold. He told me about the plant having been taken solid and the starting of a reactor coolant pump. I recall no detailed discussion of plant parameters or a sequence of events throughout the day.

March 29, 1979

- 1) On Thursday morning, March 29, 1979, I met briefly with R.C. Arnold in order to review and sign out a memorandum establishing a task force to investigate and analyze what was then thought to have been a severe plant transient.
- 2) During the afternoon I attended a briefing for a group of Congressmen at the TMI visitor's center. Mr. Herbein's comments (which were transcribed) served as my first overall briefing as well. I do not recall having synthesized the various portions of that briefing into a real understanding or insight into the extent of core damage. I was satisfied that the plant was shut down, being cooled, and stable.
- 3) At the visitor's center, I spoke briefly with R. Vollmer of the NRC. He informed me about core thermocouples that were still reading higher than the coolant temperature. We mused about fuel damage and local flow blockage. I did not get a sense of anything ominous.
- 4) While at the visitor's center, I also spoke with some members of the task force that I had authorized earlier in the morning. I have no recollection of any specific detail from those conversations.



- 5) After returning to New Jersey in the early evening of March 29, 1979, I spoke with R.C. Arnold. I think it was then that he gave me an increased awareness of the open PORV and interruption of high pressure injection. We agreed that Arnold should go to the site to work with Herbein. I still did not sense the full extent of the situation.

March 30, 1979

Starting on Friday March 30 and continuing for the next several days, I gained an explicit understanding of the first recognition of the meaning of the pressure spike, the confirmation of hydrogen, and a rough quantification of the degree of core damage deduced by analysis of the zirconium-water reaction. My communications with site and GPU personnel and with various individuals around the country in the period of March 30 and beyond were too numerous to recall in detail.

I recall that my awareness of the degree of core damage increased abruptly on Friday, March 30 when I was informed of the pressure spike. In telephone conversations with personnel at the site, most likely Mr. R.C. Arnold, I was told of the pressure spike recording being brought to the attention of the GPU task force during the night of March 29. The task force postulated a zirconium-water reaction as the source of the hydrogen. The presence of hydrogen was recognized as being

consistent with the abnormal pressure-volume behavior of the primary system. The postulate also caused the plant staff to take steps to take a containment building gas sample and to take steps to permit operation of the hydrogen recombiner. The first containment building gas sample was taken at about 4:00 a.m. on March 31. Records indicate that the initial calculation of the non-condensable gas in the primary system were completed at about 0300 on March 30, 1979. The volume of the non-condensable gas in the primary system was measured by observing the system pressure change associated with a change in the water volume in the primary system.

I moved to the site on the afternoon of Saturday, March 31. Thereafter, I was in routine conversation with key members of the plant staff, the task force, the NRC, and the Industry Advisory Group that had been formed. In these interactions I became aware of the confirmation of hydrogen through the analysis of the containment building gas sample(s) which contained hydrogen and showed a depletion in the normal atmospheric oxygen concentration. This depletion along with the residual hydrogen afforded the first indication of the amount of reacted zirconium and thus the first quantitative indicator of the degree of core damage.

During the first few weeks of April, I remained at the site. I was directly involved in the concern about the potential explosivity of the hydrogen bubble, the primary cooling

system vulnerability to high concentrations of non-condensable and/or dissolved gas, and the strategies employed to remove the hydrogen from the reactor primary system. I availed myself of the early GPU operators' interviews, sat in on preliminary reviews of the sequence of events, participated in status reviews with the onsite NRC staff, coordinated the activities of the Industry Advisory Group and generally participated in the management of the accident.

During the third week in April I drew upon this awareness and the developing learnings, including the G. Miller report based on a taped conversation and reconstruction of the day of the accident by a number of key TMI personnel, to assemble testimony for presentation to the Nuclear Regulation Subcommittee of the Senate Committee on Environment and Public Works (Hart Committee).

Prior to May 9, 1979, I did not conduct any exhaustive investigation of the pressure spike and its interpretation. I had given the subject considerable attention in the course of preparing the Hart Committee testimony because the spike, its identification with the zirconium-water reaction, the verification and quantification of the hydrogen, and the subsequent analysis of the degree of fuel cladding reaction was a meaningful way to illustrate the difficulty in recognizing the scale of the accident and the time necessary to derive enough information for some quantification of the degree and nature of the core damage.



From the considerable information available to me prior to May 9, 1979, I had a very clear understanding of the delayed recognition and interpretation of the pressure spike. I also heard or saw no indication that on March 28 the pressure spike had been properly diagnosed as the product of a zirconium-water reaction or that the pressure spike caused the plant staff to change or adopt a strategy for bringing the plant to cold shutdown that recognized the presence of hydrogen or non-condensable gas. Prior to May 9, 1979, I knew that a pressure spike had in some way been observed by numerous individuals on the day of the accident, but my overall awareness caused me to conclude that no one recognized the significance of the spike as a direct indicator of or as a direct measure of core damage on March 28.

In preparing the mailgram I did not conduct or cause to be conducted any additional inquiry into the facts beyond my own knowledge, nor do I remember consulting with anyone on the content of the mailgram. My knowledge on May 9 of the pressure spike and its interpretation along with my general understanding of the accident and the operator response, gave me a sense of confidence and a sense of need to respond to what I considered to be misinformation in the New York Times article.

Since I sent the mailgram on May 9, 1979, there have been several investigations which have led to disclosure of additional information on the pressure spike and the awareness of

it and its significance. I have reviewed this information including specific interviews of individuals. The testimony of Chwastyk, Mehler and Illjes has been focused on as evidence of: (1) the identification on the day of the accident of hydrogen as a cause of the pressure spike; (2) the prohibition of equipment operation in containment as a further indicator that hydrogen had been identified; and (3) awareness of core damage.

My reading of Mehler's testimony indicates to me that he is uncertain about the timing of equipment limitations. In this regard, I am influenced by the fact that there is objective data in the form of a control room log book entry at about 9:00 p.m. on March 29 concerning "sparking potential". Further, my reading of Mehler's statements is that he has consistently testified that hydrogen was never mentioned on March 28. On October 30, 1979, he testified:

No, the word (hydrogen) to my knowledge never entered into any conversation until it came out in the press. And that was the first time I heard the word hydrogen mentioned. Now, if you read through my transcripts, that word is mentioned a lot because the transcripts were made after March 30 and everyone knew it was hydrogen.

The time uncertainty of the relevant testimony is illustrated dramatically by the May 23, 1979 testimony of Illjes who recalled the discussion of a hydrogen explosion and the simultaneous operation of electrical equipment as occurring when the containment pressure recorder chart was removed in order to

make a copy at about 8:00 p.m. on March 28, 1979. The physical evidence demonstrates that the chart was not removed until March 29, 1979.

Of the three, the testimony of Chwastyk is the most suggestive that the pressure spike was related to core damage on the day of the accident. It is significant to note when appraising the accuracy of the mailgram that the first interview of Chwastyk took place on May 21, 1979, 12 days after the mailgram. In that NRC interview Chwastyk refers to the pressure spike as being the result of "some kind of explosion" and states that he did not understand the cause. He makes no mention in his May 21, 1979 interview of hydrogen. In Chwastyk's October 11, 1979 and October 30, 1979 NRC depositions he refers to a hydrogen explosion and correlates its occurrence with the operation of a valve but does not identify any assessment of core damage or non-condensable gas. In this regard, the October 30, 1979 SIG deposition of Chwastyk includes the following exchange:

Q - Do you remember forming any opinion or thought in your own mind on Wednesday about how substantial the damage must have been to the core to generate that great deal of hydrogen? Is that something that you thought about at all? What was your reaction to that?

A - I thought about it, and I think from the time that it dawned on me what had happened in the reactor building, I knew we had sustained some core damage. How severe it was, I tried to stay away from thinking about how severe or unsevere the accident was, simply



because I don't know. I don't want to make any conjecture. At the time, remember, I had other things that I just did not have the time to waste thinking about what ifs essentially.

It isn't until a September 4, 1980 NRC interview that Chwastyk mentioned "zirc-water reaction" in relationship to "some core damage". In my judgment <sup>this</sup> <sub>A</sub> interview does not reflect an understanding of the zirconium-water reaction and its core damage implications. It contains the following exchange:

Q - Is that another way of saying, what is the basis of your conclusion that there was zirc water reaction?

A - Let me answer this way. I don't know of anything specifically during from the time that I got there until the spike that would lead me to believe that we had zirc-water reaction. But what happened previous to that was so unclear that it was a possibility.

My determination that it was a hydrogen explosion due to zirc water reaction, I could not come up with any other explanation that would explain what I had seen take place, and that was the simultaneous pressure spike with the operation of the valve and the loud noise heard.

I just had nothing in my background that could tell me or that could suggest that it was anything other than an explosion, simply the way it acted plus the fact that it led to the zirc water because I did not where else we could get anything to explode.

My reading of the post-mailgram statements does not provide me with absolute proof of the state of knowledge on the day of the accident but neither does it undermine my belief in

the accuracy of the judgment expressed in the mailgram. While Chwastyk's later testimony mentions the link between the pressure spike and core damage, I don't find any meaningful discussion of the conditions necessary for a zirconium-water reaction nor do I find any attempts to infer the type or degree of core damage. I cannot conclude that Chwastyk "interpreted the pressure spike and spray initiation in terms of reactor core damage at the time of the spike." My readings of these individuals' statements, too, is impacted by the various investigators' reactions to all the statements before them.

In November of 1979, the NRC staff's investigation of the accident, NUREG-0600 stated at 4.42:

No statements that have been obtained indicate that anyone present postulated that the pressure spike was due to the rapid burning of hydrogen.

The NRC's Special Inquiry Group reported in NUREG/CR-1250 in January 1980 at page 42:

The true nature of the pressure spike will not be generally recognized until Thursday (March 29) evening.....

The Special Inquiry Group's Vol. II, Part 3, at page 908 states:

Except for Chwastyk's testimony, no other evidence indicates that anyone in the control room realized on March 28 that there might have been a hydrogen explosion in the reactor building.....

The NRC's Investigation into Information Flow During the Accident at Three Mile Island, Jan. 1981 (NUREG-0760) reviewed added information and states at page 28:

They (the investigators) conclude that Chwastyk's recollection of the cause of the spike is in error. The investigators conclude that hydrogen was not discussed as a cause for the pressure spike on March 28, 1979; there was no acknowledged cause for the spike on that date. It is concluded that the order not to restart electrical equipment was given on some date subsequent to March 28, 1979.

These independent investigations and their conclusions arrived at after the date of the mailgram and based on additional information provide direct support for the thrust of the mailgram statement. While the SIG takes Chwastyk's testimony at face value, I cannot conclude from his sequence of interviews and depositions that he understood the source of the pressure spike or that he recognized its implications on the day of the accident. I am forced to conclude that his post-accident learnings have been incorporated into his recollection of the day of the accident.

It is interesting to note that the only other report on this subject, the Majority Staff Report of the Committee on Interior and Insular Affairs of the U.S. House of Representatives, dated March 1981, with the benefit of the cumulative testimony and analysis, makes no explicit finding on the mailgram.



The latter portion of the Mailgram statement "and no one withheld any information" refers to the pressure spike and its interpretation. It was my conclusion that the pressure spike and its meaning was not understood on the day of the accident and consistent with that conclusion it was my further belief that no one made a conscious decision to withhold information about the spike.

The Special Inquiry Group examined the "assessment and dissemination of information" and reported its findings in the January, 1980 Report. Subsequently the SIG principals reported to the NRC on the result of a review of specific questions posed by Congressman Udall on January 21 and February 4, 1980. A number of these questions relate directly to the matter of the mailgram and relevant "evidence". In a Memorandum to Chairman Ahearne on March 4, 1980, the SIG principals reported that their review "tends to corroborate the Report's overall findings". The SIG Report had concluded:

The evidence failed to establish that Met Ed management or other personnel willfully withheld information from the NRC. There is no question that plant information conveyed from the control room to offsite organizations throughout the day was incomplete, in some instances delayed, and often colored by individual interpretations of plant status. Indeed, information conveyed by Met Ed, NRC and B&W employees in the control room to their own managements and offsite organizations was in many cases incomplete and even inaccurate.

However, based on the evidence, we could not conclude that the causes of this breakdown in

information flow went beyond confusion, poor communications, and a failure by those in the control room, including NRC and B&W employees, to comprehend or interpret the available information, a failing shared to some extent by offsite organizations as well.

o o o

I was interviewed on the matter of the mailgram on September 12, 1980, by NRC investigators who prepared NUREG 0760. In that interview, I stated, "I still consider the statement that I made on May 9th to be accurate". In a public meeting before the NRC Commissioners on October 14, 1981, I was questioned by Commissioners Gilinsky and Bradford about the mailgram. I said then, "I believed that the mailgram was correct on May 9th. I believe that it is correct as of today".

Today in 1984 my belief is the same. In my own assessment of the accuracy of the mailgram, I focus on the thrust of the mailgram statement -- namely, no one interpreted -- rather than the "no evidence" introductory phrase. I continue to believe that the evidence and independent analysis thereof support the thrust of the mailgram statement. In making this statement I recognize that the mailgram phrase "no evidence" can if taken literally indicate a measure of absolute knowledge that goes beyond the reasonable basis that I possessed for my judgment and my belief. By the same token, the "evidence" that is sometimes cited was not only adduced after the mailgram but does not rise to the level of substance necessary to justify a

responsible questioning of my integrity. I respectfully ask this Board to make a definitive finding in this matter.



# Lag in Reporting Reactor Damage Laid to Experts

By The Associated Press

MIDDLETOWN, Pa., May 7 — A technician from the Three Mile Island nuclear plant told visiting Congressmen today that control room personnel and Federal inspectors knew that the plant's fuel core was seriously damaged two days before the damage was formally reported and the seriousness of the accident made public.

Jim Floyd, a control room supervisor, told members of a House energy subcommittee that inspectors from the Nuclear Regulatory Commission were standing by as the tracing needle on a reactor pressure monitoring gauge leaped.

That so-called "pressure spike," caused by an explosion of hydrogen in the reactor vessel and showing that the reactor core itself had been damaged, was recorded at 1:58 P.M. Wednesday, March 28, about 10 hours after the start of the nation's most serious nuclear accident.

### Reported 2 Days Later

The commission has said that it was not aware of the explosion until Friday, March 30, when it was formally reported by the Metropolitan Edison Company, which operates the reactor. Company officials have said the significance of the event was not realized until then.

In another development in the growing concern over nuclear power, President Carter told organizers of yesterday's antinuclear demonstration that shutting down all the nation's nuclear generating plants, as the protesters were demanding, was "out of the question," but he added that his Administration was trying to minimize the need for nuclear power. Senator Edward M. Kennedy told constituents that he favored a moratorium on building new nuclear plants and a thorough examination of all existing reactor. [Page A18.]

At the crippled nuclear generator, Mr.

Continued on Page A18, Column 3

RCA

# Lag in Reporting Laid to Experts

Continued From Page A1

Floyd, the technician, told the touring Congressmen that the gas explosion had been clearly monitored by the control room instruments in full view of both plant operators and the N.R.C. inspectors, whom he did not identify. "We assumed they knew what we were doing," he added.

He said the explosion had triggered an automatic fire control spray inside the reactor building that had to be turned off by operators, again in full view of the commission inspectors.

In Washington, Frank Ingram, a commission spokesman, said that existing regulations might require plant operators and Federal inspectors to report safety incidents to N.R.C. officials, "depending on the circumstances." But he said the circumstances of this incident were still to be determined by the agency's investigation, which will also consider whether any reporting requirement existed or was violated.

Mr. Ingram said the commission could impose penalties for infractions of its regulations ranging from an "enforcement letter" requiring a correction of the infraction to revocation of an operating license and fines up to \$25,000.

### 'Disturbing' to Udall

At Middletown, Representative Morris K. Udall, Democrat of Arizona, who is chairman of the subcommittee, said the disclosure was extremely disturbing.

"The fact that there was an explosion that first morning and that the company knew about it certainly should have been reported to the Governor, who had evacuation responsibility," he said.

Victor Gilinsky, a commission member who came along on the tour, said he was concerned about the report that N.R.C. inspectors on the site may have known about the explosion two days before their superiors.

"This is the first I have heard that they observed it at the time it happened," Mr. Gilinsky said. "It will be a subject of meticulous review."

Mr. Floyd attempted to reconstruct the night of the accident for the visitors. "A lot of things happened real quick," he said.

He showed the Congressmen a yellow tag dangling from a control board instrument that he said might have covered a light showing that a critical valve was closed instead of open.

He said that control room operators ap-

parently misread signs of the true nature of the accident in those first few hours, not believing their instruments and not understanding what they meant. "It was a very unusual situation to find yourself in," he remarked.

The group was taken to the base of the 190-foot-high reactor containment building, where John G. Herbein, a Metropolitan Edison vice president, pointed at the huge circular concrete structure and said: "We figure there are about 400,000 gallons of radioactive water in the basement of this building." He indicated an imaginary line on the structure, saying, "It's up to about the six-foot level."

The Congressmen, who were receiving the first full tour of the stricken plant since President Carter arrived at the height of the crisis, were shown a variety of systems under construction designed to guarantee that the reactor can be continuously cooled without taking radioactive water out of the reactor building.

Herman Dieckamp, president of the General Public Utilities Corporation, Metropolitan Edison's parent company, said there was at least one known instance of human error — two valves on a backup water system closed during a test were never reopened. Yet, he said, the operator who had closed the valves indicated on a check list that he had reopened them.

"We have the name of this person. We have interviewed him. His response was, 'I thought I completed that,'" and reopened the valves, Mr. Dieckamp said.

Commission officials told the Congressmen that the plant was now stable and that no more radioactivity was being released from it than from a normal operating plant.

After the tour, Mr. Udall told reporters: "You get inside one of these things and you realize how enormously complex and complicated they are. Maybe the technology is so complex it's beyond the ability of even well-intentioned people to control. The future of nuclear power hangs in doubt."

*Handwritten note:* This is not a... (faint)

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MR VICTOR GILINSKY, COMMISSIONER  
THE NUCLEAR REGULATORY COMMISSION  
WASHINGTON DC 20555

THIS IS A COPY OF MAILGRAM SENT TO THE HONORABLE MORRIS K UDALL  
WASHINGTON DC 20515

THE STORY IN THE NEW YORK TIMES OF MAY 8 1979 REPORTING ON THE VISIT OF  
YOUR SUBCOMMITTEE TO THE THREE MILE ISLAND PLANT IS GROSSLY IN ERROR.

THE "PRESSURE SPIKE" WAS NOT IN THE REACTOR VESSEL. THE PRESSURE GAGE  
WHICH SHOWED A SPIKE AT ABOUT 1500H ON THE DAY OF THE ACCIDENT READS  
PRESSURE WITHIN THE REACTOR CONTAINMENT BUILDING.

THE PRESSURE SPIKE DID INITIATE CONTAINMENT BUILDING SPRAY WHICH IS  
DESIGNED TO COOL THE STEAM RELEASED INTO THE CONTAINMENT BUILDING AND  
TO SCRUB ANTICIPATED IODINE IN THE DESIGN BASIS ACCIDENT. SINCE  
BUILDING PRESSURE DID NOT INDICATE THE CONTINUING NEED FOR BUILDING  
SPRAY, THE OPERATOR TURNED OFF THE SPRAY PUMPS. IT WAS THIS ACTION AND  
THE BUILDING PRESSURE RECORDER THAT MR FLOYD REFERRED TO AS BEING IN  
VIEW OF THE NRC INSPECTORS IN THE CONTROL ROOM AT THE TIME.

THERE IS NO EVIDENCE THAT ANYONE INTERPRETED THE "PRESSURE SPIKE" AND  
THE SPRAY INITIATION IN TERMS OF REACTOR CORE DAMAGE AT THE TIME OF THE  
SPIKE NOR THAT ANYONE WITHHELD ANY INFORMATION.

ON THE EVENING OF THURSDAY MARCH 29 WHEN THE TECHNICAL STAFF SENT TO  
THE SITE TO INVESTIGATE THE ACCIDENT WAS REVIEWING AND CORRELATING  
PLANT DATA FROM THE NUMEROUS SOURCES, THE SPIKE WAS NOTED AND  
POSTULATED TO BE THE RESULT OF A HYDROGEN OXYGEN EXPLOSION WITHIN THE  
CONTAINMENT BUILDING. THE TECHNICAL STAFF RECOGNIZED THAT THE PROBABLE  
SOURCE OF ANY HYDROGEN WAS A ZIRCONIUM WATER REACTION IN THE REACTOR  
CORE. THE PRESENCE OF HYDROGEN WOULD INDICATE THAT HIGH TEMPERATURE  
CONDITIONS MUST HAVE EXISTED IN ORDER TO RESULT IN SIGNIFICANT REACTION  
AND HYDROGEN PRODUCTION. THIS RECOGNITION LED TO MEASUREMENTS TO DEDUCE  
THE EXTENT OF A HYDROGEN BUBBLE WITHIN THE PRIMARY REACTOR COOLING  
LOOP. THE RESULTS OF THESE MEASUREMENTS WERE PROMPTLY REPORTED TO THE  
NRC ON FRIDAY MARCH 30. IN ADDITION THE FIRST GAS SAMPLE FROM THE  
CONTAINMENT BUILDING ATMOSPHERE TAKEN AT 8AM ON MARCH 31 REVEALED THE  
PRESENCE OF HYDROGEN GAS AND A REDUCED OXYGEN LEVEL WHICH WERE  
SUPPORTIVE OF THE PREVIOUS POSTULATE.

I REGRET THAT THIS ASPECT OF THE ACCIDENT HAS BEEN MISUNDERSTOOD AND  
INACCURATELY REPORTED. I THINK THE FULL UNDERSTANDING OF THE THREE MILE  
ISLAND ACCIDENT IS OF SUCH VITAL IMPORTANCE TO THE NATION THAT THE WORK

OF YOUR COMMITTEE AND THE OTHER BODIES THAT WILL BE INVESTIGATING THE  
ACCIDENT SHOULD NOT BE DEFLECTED BY INACCURATE REPORTING FOUNDED ON  
PRESUMPTIONS OF DUPLICITY. SINCERELY

M DIECKAMP, PRESIDENT  
GENERAL PUBLIC UTILITIES CORP  
1001 BROAD ST  
JOHNSTON PA 15907

1155 EST

MGCOMP MCM



j17

1 JUDGE SMITH: Is your prerogative to lead off on the  
2 cross-examination, or, as we discussed earlier today, it is  
3 also your prerogative to have other examination precede yours?  
4 It is your option.

5 MS. BERNABEJ: We would chose at this time, given  
6 what we feel is a lack of hearing notice to the parties that  
7 Mr. Dieckamp would be appearing today, to allow the other  
8 parties to proceed first.

9 I would also like to state that we did, over the  
10 break in a very short time, compile a list of documents that  
11 we do not have available to us for our preparation in cross-  
12 examining Mr. Dieckamp because of the lack of notice.

13 Those include, first of all, all of the interviews  
14 conducted in the course of the NRC investigation which were  
15 stipulated into evidence before this Board by the parties, a  
16 14-volume list of documents.

17 JUDGE SMITH: They're here, aren't they?

18 MS. BERNABEI: We had them available to us when we  
19 broke at 11:00 a.m. They were not available for our prepara-  
20 tion prior.

21 JUDGE SMITH: Let me ask you this: is the first time  
22 you had access to those documents -- I will ask Mr. Blake in  
23 a moment.

24 I am aware that there was some problem in the delivery  
25 of the Exhibit 1, Joint Exhibit 1; I'm aware of that. But

1 there is a long list of documents which I assume, because of  
2 your participation in the stipulation and your participation  
3 -- don't forget; you're one of the sponsors of that exhibit.  
4 You joined in the motion to accept that exhibit. I assumed  
5 that you have had some cognizance of those documents, that  
6 you have had access to them, and I can't believe that you  
7 would have moved them into evidence and have access or  
8 be aware of them or use them for the first time -- I don't  
9 understand what's happening here.

10 MS. BERNABIE: Let me explain. Very clearly --

11 JUDGE SMITH: You represented to the Board that they  
12 were appropriate documents.

13 MS. BERNABIE: Not only do we represent, we in fact  
14 compiled a large number of those on the list. We do not  
15 have those available for us in Harrisburg because we did not,  
16 one, have notice that Mr. Dieckamp would be testifying, and,  
17 two, we had been given information by licensee that we would  
18 be provided a copy by them. I assumed that would be for our  
19 use here in Harrisburg.

20 We did not have any use of those 14 volumes of documents  
21 prior to 11:00 a.m. today other than the miscellaneous docu-  
22 ments that --

23 JUDGE SMITH: It is correct that you are familiar with  
24 the documents that would use in cross-examination, isn't it?

25 MS. BERNABIE: Certainly.

Clear case

JUDGE SMITH: And it is correct that you have an index of them, and it is correct that the documents are within a few feet of you as you sit here right now?

MS. BERNABEI: And they have been since 11:00 a.m. this morning. That doesn't mean that that is adequate preparation time for a major witness in this case.

JUDGE SMITH: You still haven't explained the void that I perceive in your logic. Number one, I perceive that you have known about these documents, the substance of them, for a long time, at least since you have first stipulated them into evidence; and your problem as far as I can see is limited to the physical accessibility of them.

Can you get it in your hand? Can you sit there with the index to them in your hand and then right before you know about the documents, -- there is something you failed to explain.

MS. BERNABEI: Perhaps I should explain since you may not be as familiar with the documents as we are. It is 14 volumes of interviews that were conducted in the course of four to five investigations by the NRC, by the company and by other bodies. It seems to me that it is not reasonable to expect any party to maintain in their head exact page numbers and recollections of each of those interviews which take up at least seven pages in the index alone.

It contains 14 volumes of interviews. What I'm saying



1 is without access to the physical documents, we cannot pre-  
2 pare adequately. I don't think any party who is familiar  
3 with these 14 volumes can say otherwise.

4 JUDGE SMITH: Do I understand you to be saying that  
5 you were not planning to prepare until this very weekend the  
6 work on those 14 volumes of documents?

7 MS. BERNABEI: No, that's not what I said. It is not  
8 a fair representation of what I said.

9 JUDGE SMITH: I'm sorry; I'm trying to understand my  
10 best what your problem is. I assure you, once we identify  
11 your problem, if we believe it has merit we will take the  
12 steps to afford you relief.

13 Let me consult with my colleagues and see if I have  
14 missed a point here.

15 MS. BERNABEI: Thank you.

16 MR. BLAKE: Chairman Smith, may I set the record  
17 straight on a couple of items before the Board consults? One  
18 is that we have checked into the delivery of the documents.  
19 They were produced and delivered to Ms. Bernabei's offices on  
20 the 13th, the same date that they were provided to the Board  
21 and to the court reporter and to the NRC staff.

22 We have a signed receipt from Mr. Thomas Devine at  
23 12:15 on that date for those offices.

24 Second, there are in this room two complete sets of  
25 those, one which we have -- we do have an extra here -- and

*Esbeck*

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1 the Board's complete set. I may be wrong, but my recollec-  
2 tion is that in last evening's discussion the Board offered  
3 Ms. Bernabei that their set was here and that the Board did  
4 not intend to use it last night, and that it was made avail-  
5 able to Ms. Bernabei for her use.

6 MS. BERNABEI: May I state one thing? I did not see  
7 those documents. We returned to our office, Ms. Doroshow and  
8 myself, around 6:30. We searched the offices and found no  
9 such documents. I saw only a letter from Mr. Lewis referencing  
10 the documents.

11 MR. BLAKE: The letter Ms. Bernabei refers to was  
12 taped to the boxes when they were delivered.

13 MS. BERNABEI: Not when I read it.

14 JUDGE SMITH: I think the point should not turn on  
15 whether after returning from an afternoon of prehearing con-  
16 ference to her office on the 13th, Ms. Bernabei had in her  
17 possession four boxes. If the state of affairs is that you  
18 need access to those 14 volumes, large volumes of documents,  
19 to prepare for your cross-examination of Mr. Dieckamp, I can  
20 only go back to my original point, which is that you are  
21 willfully unprepared for this hearing and you are willfully  
22 unprepared to cross-examine the principal witness.

23 You have the documents. We assume you are familiar  
24 with the documents, and you have not explained how that  
25 preparation, how that familiarity, how all of that has failed

j22

1 to prepare you for this afternoon. I still do not understand  
2 how the point of delivery of the formal bound version of these  
3 documents together with an index has impeded your preparation.

4 Unless you have something new, I think the problem is  
5 me. I am missing the point here.

6 MS. BERNABEI: Let me reference you to the specific  
7 interviews that Mr. Dieckamp talks about in his testimony.  
8 We did not have available these specific interviews, and I  
9 have not committed to memory these specific interviews. I  
10 know generally what they say.

11 JUDGE WOLFE: What page are you referring to in the  
12 Dieckamp testimony, Ms. Bernabei?

13 MS. BERNABEI: I'll refer page by page to each inter-  
14 view. Page 13 where he speaks about an October 30, 1979  
15 Mehler testimony; I did not commit any of that document to  
16 memory.

17 Later on page --

18 JUDGE SMITH: You have not committed it to memory?

19 MS. BERNABEI: That's correct.

20 JUDGE SMITH: I'm not asking you about that.

21 MS. BERNABEI: May 23, 1979 --

22 JUDGE SMITH: If you are going to read a long list of  
23 documents that you have not committed to memory, you're just  
24 wasting more time. That's not going to help.

25 One of the things I don't understand about you:



j23

1 explanation is that given that you had hoped to have this  
2 weekend to prepare, I could not anticipate ever having seen  
3 a cross-examination which simultaneously cross-examines a  
4 witness on all of the documents which are relevant. There  
5 certainly has to be a priority, some kind of a listing. I  
6 don't know.

7 Are you representing to this Board that your prepara-  
8 tion is so green that there are no documents that you have  
9 mastered that enable you to begin your cross-examination of  
10 this witness?

11 MS. BERNABEI: No.

12 JUDGE SMITH: Let me consult with my colleagues and  
13 see if I have misunderstood a point here.

14 (Pause.)

15 JUDGE SMITH: I have consulted with my colleagues.  
16 They have reassured me that I have not overlooked anything --  
17 that they haven't overlooked. In any event, we have a  
18 common understanding of what you're saying.

19 What we have observed is that as we understand from  
20 preparation of this case, the prehearing pleadings, filings  
21 and everything, that the formal binding of the documents, the  
22 formal indexing of the documents at the eve of hearing is  
23 relatively unimportant in the careful preparation of a case.

24 We would have expected you to have prepared your case  
25 based upon your own access to those documents. A prudent,

1 careful lawyer would have done that, and we think that you  
2 are one.

3 The timing of the physical delivery of the exhibits  
4 is, as far as I can see, irrelevant, and you haven't pointed  
5 out its relevancy.

6 In any event, you have recognized that you have had  
7 access to at least some documents which form the foundation  
8 of your cross-examination of Mr. Dieckamp, and we don't think  
9 you are being prejudiced; at least you haven't demonstrated  
10 it.

11 We will accept your election to begin with the examina-  
12 tion of other parties. It may very well be that we won't get  
13 to you; I don't know.

14 Mr. Au.

15 MR. AU: I have some questions.

16 MR. BLAKE: Judge Smith, I'm not certain; maybe I need  
17 to check with the court reporter. I don't recall whether or  
18 not the Board ordered that Mr. Dieckamp's testimony be  
19 incorporated into the record.

20 JUDGE SMITH: Yes, we received it. I simply said it  
21 is received. And when I say it is received, it is bound into  
22 the record.

23 Mr. Dieckamp's testimony was earlier received, and we  
24 just clarified with the reporter that that means that you  
25 physically bind it into the testimony at the point it was

j25

1 received.

2 Mr. Au.

3 CROSS-EXAMINATION

4 BY MR. AU:

5 Q Mr. Dieckamp, at the time you joined General Public  
6 Utilities in 1973, what was your position?

7 A My first position with GPU was Executive Vice-  
8 President of the company.

9 Q What were your responsibilities at that time?

10 A They included participation in the general manage-  
11 ment of GPU, and specifically its service company. My initial  
12 activities tended to be mostly directed toward the technical  
13 operational aspects of the company as contrasted with the  
14 financial or ratemaking portions of the company.

15 Q Did the technical operations of the company in-  
16 clude supervision of GPU's nuclear power plants?

17 A The service company in 1973 had the responsibility  
18 for the design and construction of new nuclear power plants.  
19 At that time that included TMI-1 and TMI-2.

20 The direct responsibility for the supervision and the  
21 operation of nuclear power plants resided with the subsidiary  
22 that owned that power plant.

23 For example, the direct responsibility for the opera-  
24 tion of the Oyster Creek Nuclear Station was the responsi-  
25 bility of Jersey Central Power & Light, its operator.



1           Subsequently, when TMI-1 went commercial in September  
2 of 1974, Metropolitan Edison Company had the full licensed  
3 responsibility for the operation of that plant.

4           Q    During the period when you were Executive Vice-  
5 President, you were involved in the licensing and construction  
6 of TMI-1 and TMI-2?

7           A    Yes, because at the time in 1973 both of those  
8 plants were under construction. A group within the service  
9 company called the Design and Construction Group was respon-  
10 sible for leading that design and construction effort.

11           I should add, though, that at all times the official  
12 licensee was never the service company, but the operating  
13 company owner of the power plant.

14           So when it came time to make official filings to the  
15 NRC, official representations to the NRC, those were always  
16 made directly by the owning company who was the licensee.

17           Another way you could describe that is that the service  
18 company was acting as a contractor to the owners.

19           Q    Were you familiar with the designs of the reactors  
20 at TMI-1 and TMI-2?

21           A    I think I could say that I was familiar. I think,  
22 though, that that term could cover a broad spectrum of degrees  
23 of knowledge.

24           I was familiar in a general sense. I certainly was  
25 not involved in any of the detailed design or detailed

1 decision-making.

2 Q I understand from your prepared testimony at page  
3 2 that you have a good deal of background in the operation  
4 of nuclear reactors from your prior experience with Rockwell  
5 International; is that correct?

6 A Mr. Au, I would rather characterize my background  
7 prior to GPU as having significant experience in the develop-  
8 ments of advanced nuclear reactors and not so much in operating  
9 nuclear reactors.

10 I did not and could not portray myself as an expert  
11 in the operation of light pressurized or boiling water light-  
12 water reactors at that time.

13 Q At that time meaning 1973?

14 A Yes.

15 Q When did you become President of GPU?

16 A 1974, sometime; I think roughly a year after join-  
17 ing the company, so that would make it approximately the  
18 spring of 1974.

19 Q Did your responsibilities change with reference to  
20 the supervision of the construction and licensing of nuclear  
21 reactors?

22 A No, they did not change significantly. The organi-  
23 zation structure remained the same. I could almost say it was  
24 a title change.

25 At the same time, though, I think during a similar time

1 period, I went on to the Board of Directors of the operating  
2 subsidiary companies and the GPU parent company; at about the  
3 same time.

4 Q Prior to 1978, did you acquire any additional  
5 knowledge and expertise on the operation of nuclear reactors?

6 A I would not say of any depth. I certainly was  
7 aware of the operations of the plants. I did not consider my-  
8 self an expert in light-water reactors. I felt that I had  
9 enough fundamental understanding of nuclear power and the  
10 elements of safety of nuclear power to permit me to conduct  
11 my management responsibilities. But I could not have, for  
12 example, gone into the plants and explained to you the many  
13 systems of the plant or the procedures of the plant or things  
14 of that sort.

15 Q Did you ever participate in any of the emergency  
16 exercises that were conducted at any of GPU's plants?

17 A No, I did not.

18 Q Did you have any responsibility at the time, that  
19 is 1978 when you were President of GPU, for off-site decision-  
20 making at these plants?

21 A I had no formal responsibility for any off-site  
22 decision-making relative to the operating nuclear plants.

23 Again, the concept of the organization was that the  
24 plant owners were perceived to be self-sufficient with respect  
25 to their ability to operate those plants. However, the



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1 service company was available to provide technical expertise  
2 and backup to those owners in the conduct of their activities.

3 Certainly, as a senior official of the company I did  
4 have an ability to influence people's thinking, but I had no  
5 direct ability to direct them to do things.

6 For example, it would not have been possible for me to  
7 make an official finding to the Nuclear Regulatory Commission  
8 on their behalf.

9 Q Do you have any present responsibility for off-  
10 site emergency planning?

11 A No, I have no direct responsibility of that sort.  
12 My only nuclear role at this time is that of one of the  
13 directors of the Board of the subsidiary that we established  
14 to operate all of the nuclear plants, namely GPU Nuclear  
15 Corporation.

16 JUDGE SMITH: Excuse me, Mr. Au, before you proceed;  
17 during the main hearings, Mr. Dornsife will remind you, we  
18 permitted the Commonwealth of Pennsylvania a great deal of  
19 latitude in your cross-examination of witnesses, allowed them  
20 to frequently go beyond the scope of the direct examination  
21 because we felt that the Commonwealth had a particular inter-  
22 est and a particular responsibility.

23 However, we ask that when you do that and you do have  
24 a purpose, that you inform the Board of that and seek leave.

25 I do not know if you are exercising that prerogative

j30

1 now or if your examination is intended to be somehow related  
2 to his direct testimony and issues that we have.

3 I would like to have continual understanding as to  
4 what is happening in the hearing.

5 MR. AU: I was just laying the foundation for his  
6 testimony concerning the events of March 28, and what his  
7 responsibilities at that time were.

8 JUDGE SMITH: All right.

9 BY MR. AU:

10 Q. On March 28, the date of the accident, your pre-  
11 pared testimony indicates that you had a number of briefings  
12 with various officials at the site.

13 Can you identify which officials you spoke with on that  
14 date?

15 A. I don't think the testimony indicates any briefing  
16 with any officials at the site. The only members of the site  
17 organization that I spoke with on March 28, 1979, were  
18 Messrs. Herbein, Miller and Kunder, and that brief conversa-  
19 tion took place on the steps of this building, the front steps.

20 Q. You also had telephone conversations with other  
21 officials during the day, did you not?

22 A. Yes. I spoke by telephone with Mr. Creitz, the  
23 President of Metropolitan Edison, and Mr. Arnold in Parsippany,  
24 New Jersey, who at the time was the Vice-President for Design  
25 and Construction of the nuclear power plants under

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1 construction.

2 Q You did not visit Three Mile Island during the day;  
3 is that correct?

4 A I did not visit the site on March 28, 1979.

5 Q Did you have any telephone conversations with any  
6 of the site personnel other than Mr. Creitz?

7 A Again, the only conversations with site personnel  
8 or the ones that I have described as site personnel were with  
9 Herbein, Miller and Kunder. That was one conversation.

10 Q Did anyone mention the pressure spike in any of  
11 those conversations?

12 A No, they did not.

13 Q Did anyone mention any hydrogen ignition or burn  
14 or explosion in any of those conversations?

15 A No, they did not.

16 Q At the end of the evening on March 28, did you  
17 form an opinion as to what was happening at the plant?

18 A By the end of the evening would include a mid-  
19 evening, and I'll say roughly 8:00 in the evening, conversa-  
20 tion with Bob Arnold after returning to my home in New Jersey.

21 I ended up with an impression of the situation at the  
22 site, which I subsequently learned was wrong. The principal  
23 thing that I learned from Bob Arnold at that time was that a pri-  
24 mary coolant pump had been started and was operating and the  
25 plant was being cooled by forced convection; and that there



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1 was a sense that the plant was now in a stable, safe, cooling  
2 mode.

3 Again, that sense was revealed to be wrong in the next  
4 few days as the facts unfolded.

5 Q Did you form an impression as to what had happened  
6 earlier in the day?

7 A Not an impression that was in any way correct. I  
8 certainly did not have enough information to know about the  
9 extended period during which water inventory was lost from  
10 the primary system and the degree to which the plant had be-  
11 come overheated and the kind of things that resulted in the  
12 severe damage that we today know about.

13 Q Even though your initial impression was incorrect,  
14 what was that impression?

15 A The impression was that the plant had gone through  
16 an automatic shutdown; that the emergency systems of the plant  
17 had operated as intended; that perhaps there had been or that  
18 there had been some water spillage through the power-operated  
19 relief valve; that by some means fuel had been somewhat  
20 damaged to the point of release of some radiation; again,  
21 something which was a very undesirable thing for the plant,  
22 but which was still, at that time, perceived as something that  
23 would be readily recoverable; again, a notion that is at  
24 great odds with what we know today.

25 Q On March 28, who was responsible for making a final

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1 decision on the strategy of the plant recovery?

2 A. I would say that during the day the plant was under  
3 the control of its operators and supervisors. For much of the  
4 day Gary Miller, who was the manager of Three Mile Island,  
5 was the senior man on site. Jack Herbein, to my knowledge,  
6 did not go on site during the day of March 28.

7 The direct responsibility for managing the plant and  
8 making the decisions rested between Herbein and Miller and the  
9 balance of that organization.

10 It is true, I believe, that later in the afternoon --  
11 and I think on the order of 5:00 in the afternoon -- Bob  
12 Arnold from the Design and Construction Group in Parsippany  
13 interceded with Jack Herbein and convinced him that it was  
14 important to take steps to be able to reestablish forced  
15 circulation in the plant.

16 Q. I'm not quite sure I understood the answer. Does  
17 that mean that Bob Arnold, Jack Herbein and Gary Miller, the  
18 three of them were responsible for making these decisions  
19 concerning plant recovery?

20 A. The people who had the official responsibility for  
21 operating the plant were the Metropolitan Edison people. In  
22 principle, and I think in reality, Bob Arnold did not have  
23 the authority to direct the plant to do anything. He had the  
24 ability to convince or influence Jack Herbein or Gary Miller  
25 to take action. But Bob Arnold possessed no authority of his

j34

1 own to direct action within the plant.

2 Q Maybe you can help me. Who would have made the  
3 decision to change the cooling strategy?

4 A There were a number of strategies employed during  
5 the day, so I think a number of people made those decisions.

6 I think my understanding of the accident and the inves-  
7 tigation and testimony is that the direction of the various  
8 strategies during the day largely emanated from what Gary  
9 Miller has described as the think tank of people that were  
10 aggregated in the supervisor's office from time to time  
11 making decisions about what direction the plant should go.

12 The only time that that was changed or influenced  
13 externally was when the decision was made late in the after-  
14 noon to repressurize so as to start a primary cooling pump.

15 It is my understanding that the direction to take that  
16 initiative came directly from Jack Herbein to Gary Miller,  
17 and that Bob Arnold had participated by telephone in reaching  
18 that decision.

19 Q What would have been the plant staff's response if  
20 they would have realized that there had been a pressure spike  
21 on the 28th?

22 A That is a difficult question to answer, and I am  
23 not sure that I know the right answer to that.

24 I am of the impression that after the facts, people  
25 that have thought about that have a feeling that whatever was



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1 done was perhaps as good as any other thing that could have  
2 been done. What I am saying is it was an unprecedented situa-  
3 tion. I'm not sure there is the ability to clearly say what  
4 they should have done because there were a number of things  
5 that had to be achieved in order to get the plant to a cold  
6 shutdown.

7 Q In any event, is it your testimony that you were  
8 not directly involved in those decisions concerning the  
9 strategy for recovering the plant?

10 A That's correct. I was not involved on March 28 or  
11 the 29th or the 30th in any of those operational decisions.

12 Q Whose decision was it to bring in additional out-  
13 side personnel such as Energy, Incorporated, to assist in  
14 plant recovery?

15 A That was largely my initiative to reach out and  
16 bring in additional experts. I made that decision or took  
17 that initiative on Friday, March 30, after I had learned or  
18 become more keenly aware of the difficulties of the plant by  
19 virtue of the significant radiation release on the morning of  
20 Friday the 30th, and again reinforced after I learned of the  
21 hydrogen spike.

22 Q Did you not learn about the hydrogen spike on the  
23 29th?

24 A I learned of the hydrogen spike -- I, as an indi-  
25 vidual, learned of the hydrogen spike on Friday, March 30.

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1 Q And you had learned about this after you made the  
2 decision to bring in outside personnel, or before?

3 A I'm unable to be quite that sharp in the time dis-  
4 tinction there. On Friday there was a significant step change  
5 in recognition of the difficulties with the significant radia-  
6 tion release in the morning and then with the information  
7 that I -- when I learned of the pressure spike -- and, again,  
8 I cannot pinpoint that time, but my notes would suggest that  
9 it was on the order of 2:00 in the afternoon when I learned  
10 of it. I would characterize the situation that that informa-  
11 tion reinforced my recognition of the need to reach out and  
12 bring in additional competence to help us manage the situation.

13 A It was a period of very sharp learning, a very sharp  
14 increase in recognition of the situation at the plant.

15 Q Was there an internal task force assigned to manage  
16 the recovery prior to the 30th?

17 A No. The task force that I authorized on the 29th  
18 was for the purpose of investigating and understanding what  
19 was at that time thought to have been a severe plant transient.

20 Q Let me now turn to the events of May 8 and 9. When  
21 did you first become aware of "The New York Times" article?

22 A I can't be too precise about that, but some time  
23 during the early morning of -- and by that, early part of the  
24 working day -- on May 8.

25 Q The early part of the working day being 9:00 in the

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1 morning, sometime?

2 A. Whether it's 9:00 or 10:00 or something of that  
3 order would be my best guess.

4 Q. How did you become aware of that article?

5 A. I don't have a specific recollection as to how I  
6 found out about it or who brought it to my attention or the  
7 like.

8 Q. Was it in newspaper form? Was it in physical form  
9 in front of you or was it read to you on the phone? Do you  
10 recall?

11 A. I am not sure, again, by what mechanism I gained  
12 access to that article.

13 Q. Did you talk to anyone after you learned of the  
14 article about the contents?

15 A. I would have to assume that I talked to a number  
16 of people. My testimony says, though, that I did not speci-  
17 fically consult with anyone for the purpose of responding to  
18 the article.

19 Q. Did you make a decision that you, yourself, would  
20 respond to the article?

21 A. I think that is a fair characterization.

22 Q. Did you communicate that decision to anyone else  
23 within the organization?

24 A. I think the fact that I was responding or going to  
25 respond to that article was not a secret. I think it was



1 known.

2 Again, I have no direct, specific recollection of who  
3 that list of people might be.

4 Q Did you personally write out the draft of the  
5 mailgram?

6 A I find myself today unable to recreate the drafting  
7 of that in my own mind. I would have to assume that somehow  
8 I wrote it out.

9 Q You did not ask a staff person to prepare a draft?

10 A I have no recollection that suggests that I did.

11 Q Let me turn to the mailgram itself. Where were  
12 you when you received "The New York Times" article?

13 A I think I was at Three Mile Island. I had been  
14 there on May 7 for the Congressional tour. I think I stayed  
15 overnight in the Harrisburg area. I think I was at Three  
16 Mile Island during the morning or early-afternoon of May 8.

17 I went to Johnstown, Pennsylvania, by helicopter in the  
18 early-afternoon of May 8.

19 Q And you were in Johnstown on May 9?

20 A Yes.

21 Q In the copy of the mailgram that is attached to  
22 your testimony it indicates that it was sent from Johnstown;  
23 is that correct?

24 A Yes; that is correct.

25 Q You sent it from Johnstown?

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1 A. My knowledge is the same as yours, that which is  
2 stated on the mailgram.

3 Q. And it also indicates a time, which looks like it  
4 is 11:55 a.m. Is that the time you had sent it?

5 A. Again, I know nothing that would challenge that.

6 Q. Do you recall whether you prepared your draft of  
7 the mailgram on May 8 or May 9?

8 A. My recollection is not clear on that at all.

9 Q. Do you recall what document you had in front of you  
10 at the time you prepared the mailgram?

11 A. I recall no specific documents as having been used  
12 in the preparation of the mailgram.

13 Q. Do you recall having in front of you the document  
14 which was referenced this morning as the Preliminary Annotated  
15 Sequence of Events of April 19 at the time that you prepared  
16 the mailgram?

17 A. I do not recall consulting that document in the  
18 course of preparing the mailgram.

19 Q. Do you recall talking to anyone in Johnstown about  
20 the contents of the mailgram, either at the GPU organization  
21 or an outside organization?

22 A. I have no direct recollection of consulting with  
23 anybody in Johnstown. I may have discussed it with some  
24 colleagues, but I have no remembrance of that.

25 Q. On May 8 when you were in Middletown, where were

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1 you working out of?

2 A. I think it was probably at the what we then called  
3 "Trailer City," located on the grounds of the Observation  
4 Center.

5 MR. AU: I have no further questions for this witness.

6 JUDGE SMITH: We will take a ten-minute recess.

7 (Recess.)

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1 JUDGE SMITH: Mr. Goldberg?

2 MR. AU: Excuse me. Even though I have abandoned my  
3 cross, may I ask another question to follow up on something?

4 JUDGE SMITH: Certainly.

5 BY MR. AU:

6 Q Mr. Dieckamp, I am going to read to you a portion  
7 of a response to an interrogatory prepared by counsel for GPU.  
8 I will read you the full sentence. It reads, "However, the  
9 minutes of the annual meeting indicate that in response to  
10 shareholders' criticism of the press, Mr. Dieckamp read aloud  
11 portions of his mailgram."

12 I want to go back to the events of May 8 and May 9. You  
13 have stated that you went to Johnstown on the afternoon of  
14 May 8. Was the purpose of that trip for a shareholders' meeting?

15 A Yes. The GPU annual meeting was held in Johnstown  
16 on the morning of May 9. It is the company's practice to have  
17 a Board of Directors' meeting on the afternoon before that  
18 annual meeting, and that was the purpose of my going to  
19 Johnstown.

20 Q Do you recall whether you discussed the contents of  
21 your mailgram at the Board of Directors' meeting on the evening  
22 of the 8th?

23 A I do not recall of any discussion of it at the  
24 Board of Directors' meeting. It is my understanding that we  
25 have searched the minutes of that meeting, and I am not aware

1 that we found anything.

2 Q. But you did discuss it at the shareholders' meeting  
3 the next day?

4 A. Again, my direct memory on that is vacant. What I  
5 know about it is what I have learned from the report of the  
6 annual meeting, which says that a stockholder from the audience  
7 asked a question about the New York Times article, and Mr.  
8 Kuhns asked me to respond by reading all -- I don't know if it  
9 was all or some portion of the mailgram response to Congressman  
10 Udall.

11 Q. And you don't recall when you finished composing the  
12 contents of that mailgram?

13 A. No, I do not.

14 MR. AU: Thank you.

15 JUDGE LINENBERGER: Excuse me, sir, one question: you  
16 were I believe recalling that at the shareholders' meeting on  
17 the 9th, as a result of a question from the audience, you read  
18 either the entire mailgram or a portion of it.

19 Do you recall whether that meeting occurred before or  
20 after the mailgram had been transmitted?

21 THE WITNESS: I do not have a specific recollection of  
22 that. However, the mailgram is dated 11-something or other.

23 MR. AU: 11:55. I think the stockholders' meeting ran  
24 from 10:00 in the morning until probably sometime shortly after  
25 noon. I clearly was not composing the mailgram during the

1 stockholders' meeting. My best recollection would have to be  
2 that the mailgram had already been put into someone's hands to  
3 transmit before the stockholders' meeting began.

4 JUDGE LINENBERGER: Thank you.

5 CROSS-EXAMINATION

6 BY MR. GOLDBERG:

7 Q. Mr. Dieckamp, on page 5 of your prepared testimony,  
8 you use the expression about the third of the way down,  
9 "hydrogen 'explosion,'" and you have the word "explosion" in  
10 quotation marks.

11 What is the significance if any of putting that word in  
12 quotation marks?

13 A. I think it is to reflect the fact that there could  
14 be argument about whether it was a rapid burn or an explosion  
15 as such or an ignition.

16 There is some technical uncertainty about exactly what  
17 is the right way to characterize that event.

18 Q. Is it your understanding today that the pressure  
19 spike was indicative of a hydrogen explosion?

20 A. No. Again, this reminds me of the protracted  
21 discussion yesterday with Mr. Lowe. It is my understanding of  
22 what we know today that it probably was more nearly  
23 characterizable as a rapid burn, and that the concentration of  
24 hydrogen was not sufficient to permit propagation at the speed  
25 of sound, which I understand would be the proper conditions to



1 call it a true explosion.

2 I don't know that that is important one way or the other,  
3 in my mind.

4 Q Also on page 5 in that same paragraph, you use the  
5 phrase, "local and limited fuel damage." Could you explain  
6 what you mean by "local and limited fuel damage"?

7 A The impression that I had, particularly on  
8 Thursday, the 29th, was that there had been some local failed  
9 fuel. I would think in terms of perforation of the cladding  
10 or perhaps even some degree of local cladding expansion or  
11 ballooning to the point of opening a crack in the cladding.

12 I think of that particularly in relationship to my  
13 conversation with Dick Vollmer, who was the first one to bring  
14 to my attention the fact that were some local temperatures that  
15 were reading higher than the average coolant.

16 We talked a little bit about the possibility of some  
17 local float blockage, the kind of thing we can visualize with  
18 ballooned, cracked cladding.

19 I certainly had no sense at all of massive reaction of  
20 zirconium with the water, oxidation and scalding, falling apart.

21 Q In your mind, does local limited fuel damage  
22 constitute core damage?

23 A It doesn't mean core damage in the sense that I  
24 meant it in relation to the hydrogen spike.

25 Q You used the phrase "core damage" in your mailgram.

1 A. Yes.

2 Q. How do you define the phrase "core damage" as that  
3 phrase is used in the mailgram?

4 A. That phrase at that time was used in relationship  
5 to the hydrogen spike. At that time, the hydrogen spike and  
6 the mechanism and a lot of the initial understanding of the  
7 accident was known to me. And so, I was relating it to the  
8 kind of significant damage that would be consistent with a  
9 major fraction of the Zirconium having reacted with water or  
10 steam.

11 Again, I think about the state of understanding in early  
12 May. There was a sense of perhaps a region of the core that I  
13 would describe as a conical crater-like section towards the  
14 center of the core having suffered massive damage or virtual  
15 disintegration, but still some fair degree of the elements  
16 having retained basically their mechanical configuration if not  
17 their tightness.

18 So, when I wrote the mailgram, that was my definition of  
19 what I had in mind in terms of the core damage that related to  
20 the hydrogen spike.

21 Q. On page 6 of your testimony, you discuss a mention  
22 to you by Mr. Creitz at about 9:00 on the 28th of failed fuel.  
23 To the best of your recollection, exactly what did Mr. Creitz  
24 tell you about failed fuel?

25 A. My best recollection is that he used those exact

1 words. In fact, I think failed fuel -- no, I guess as I sit  
2 here right now, I'd have to look at the note.

3 But my recollection is that that's the exact terminology  
4 he used with no further amplification of what that meant.

5 Q. To the best of your recollection, did he relate  
6 failed fuel in any way to core damage?

7 A. No. To my recollection, the term "core damage" is  
8 not something that was used in any conversation with me on the  
9 28th.

10 Q. On page 7 of your testimony, item 8 at the bottom,  
11 you mention that Mr. Arnold told you about the plant having  
12 been taken solid and the starting of a reactor coolant pump.

13 Could you briefly explain what it means for the plant to  
14 have been taken solid, and the significance of that?

15 A. To take a plant solid means to insert water without  
16 regard for retaining a void in the system or specifically in  
17 the pressurizer.

18 What we know today is that the plant was not indeed  
19 taken solid. However, had the non-condensable gas not been  
20 present, the approach of simply turning on the make-up pumps  
21 and letting them run would have taken the plant solid.

22 Q. What would be the significance of the plant going  
23 solid?

24 A. Well, prior to the accident, there was concern --  
25 and in fact, I think general operator training and belief --



1 that to fill the primary system completely with water, that is  
2 to make it solid, was an inappropriate practice because in the  
3 event of damage or excursions, the pressure would rise very  
4 rapidly, and one could challenge the integrity of the primary  
5 container or challenge the code safety valves and perhaps  
6 induce some failure to them.

7 So, it was generally regarded as an undesirable practice.

8 Q On page 8 of your testimony, you discuss a brief  
9 conversation with Mr. Vollmer of the NRC on the afternoon of  
10 March 29.

11 You state that the two of you mused about fuel damage.  
12 Do you recall precisely what was said about fuel damage?

13 A As I indicated earlier, Dick Vollmer is the first  
14 person who brought to my attention the fact that some of the  
15 core thermocouples were indicating a temperature in excess of  
16 the bulk average coolant, that they should have been seen,  
17 which could have indicated some kind of maldistribution of  
18 flow such that locally the water was running a lot hotter than  
19 the bulk average.

20 And that kind of observation could be consistent with  
21 some kind of fuel damage, cladding, ballooning, the kind of  
22 thing that could obstruct or modify the normal flow distribu-  
23 tion in the core.

24 In just very general terms, that the kind of thing that  
25 we very briefly discussed. We didn't really have enough

1 information to derive any real conclusions. It was only the  
2 presence, the continuing presence of these local temperatures  
3 in excess of the bulk average coolant temperatures.

4 Q Did Mr. Vollmer discuss with you the possibility of  
5 core damage at that time?

6 A I couldn't tell you on that occasion whether the  
7 word "core damage" as such was used or not. Again, my memory  
8 tells me that it was in relationship to local deformation of  
9 fuel elements.

10 Q On page 9 of your testimony, you tell how on  
11 Friday, March 30, when Mr. Arnold informed you of the pressure  
12 spike recording being brought to the attention of the task  
13 force on the night of March 29. To the best of your recollection,  
14 exactly what did Mr. Arnold tell you about the pressure  
15 spike?

16 A I cannot construct or reconstruct that conversation  
17 specifically. When I look back at the sketchy notes that I do  
18 have -- and I think it's reflected in response to one of the  
19 interrogatories -- the first time those notes reflect hydrogen  
20 is in relationship to this 2:00 conversation with Bob Arnold.

21 I just don't know the details of how my clear understanding  
22 of the hydrogen spike progressed from that point. But  
23 I do have a recollection that as the afternoon moved along, it  
24 was clearly my guiding assumption that there had been a  
25 significant zirconium-water reaction in the core.

1 I am sure that my awareness of that problem progressed  
2 over a period of a few hours. I don't think I got all of my  
3 understanding from one conversation.

4 Q. You state on page 12 of your testimony that  
5 considerable information was available to you prior to May 9,  
6 1979. Could you describe the types of information that were  
7 available to you prior to May 9, 1979?

8 A. Yes. I was aware of and the recipient of a number  
9 of the early operator interviews that I read. I can't be  
10 explicit about exactly which ones I did and didn't, but I  
11 would say generally that those that were available to me, I  
12 did read. I think that's most of them.

13 Secondly, I had participated in several sessions which  
14 were reviewing the sequence of events, and so I had a pretty  
15 good awareness of what happened and when and how and why.

16 I was working more or less as a coordinator between the  
17 plant and the industry advisory group. Two things or three  
18 things in particular that that group was doing were very  
19 important: a detailed analysis of the hydrogen analysis and  
20 its meaning in terms of the amount of zirconium reaction; an  
21 analysis of the indications from the intermediate range  
22 neutron detectors which were providing the early indication of  
23 what level of core uncovering occurred; an attempt at an  
24 analytical reconstruction of the temperatures, the amount of  
25 water, the flow rates, the hydrogen, the decomposition and the



1 like in order to attempt to deduce the core temperatures and  
2 thus the expected regions of significant damage or major damage.

3 In addition, I had been personally very directly involved  
4 in putting together a number of pieces of information for the  
5 purpose of preparing testimony for presentation to the Senate  
6 Committee on Public Works and the Environment on April 23rd.

7 So, all of these things were the reservoir of general  
8 information and awareness that was not only available to me but  
9 that I had directly been involved in.

10 Q. Did you receive a copy of the preliminary annotated  
11 sequence of events, March 28, 1979 which Mr. Van Witbeck  
12 testified about this morning that was prepared by the Accident  
13 Assessment Group, of which he was the primary author and which  
14 he stated was first published on April 16, 1979?

15 A. It is my understanding that I did receive a copy of  
16 that.

17 Q. Do you recall your September 12, 1980 interview by  
18 NRC investigators who were looking into the question of  
19 information flow?

20 A. Yes.

21 Q. Do you recall who was present at that interview?

22 A. My best recollection is, Norm Mosley. I was  
23 uncertain about the others. I think there were two other  
24 participants, if my memory serves me.

25 Q. Do you recall whether anyone else was present other

1 than NRC personnel and yourself?

2 A. Mr. Blake was present.

3 MR. GOLDBERG: I have no further questions for Mr.  
4 Dieckamp at this time.

5 JUDGE SMITH: We will go somewhat out of order. Judge  
6 Linenberger has questions, but is still preparing them. I only  
7 have a very few.

8 First, Mr. Dieckamp, we reflected in our initial decision  
9 that in hindsight, perhaps we should have asked you some  
10 questions about the mailgram, and the Appeal Board you might  
11 say reinforced that view and found that we had erred by not  
12 hearing from you directly on that subject, and I think I have  
13 heard an awful lot.

14 Your direct testimony covers the issue I think very well.  
15 One thing that I would like to hear from you, and that is, you  
16 have adopted this testimony, and I would like assurances from  
17 you that it is more than just a pro forma adoption, that you  
18 have participated thoroughly in the preparation of this  
19 testimony and it is not someone else's product.

20 Are you the principal author of this testimony, sir?

21 THE WITNESS: I am the principal author of this  
22 testimony.

23 JUDGE SMITH: In any event, you are vouching for every  
24 aspect of it?

25 THE WITNESS: It reflects my best understanding of what

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1 I know, and the record, and my beliefs.

2 JUDGE SMITH: A follow-up or rather an explanation of  
3 Mr. Goldberg's inquiry: I had a similar line of questioning.  
4 I am not sure that I have what has happened.

5 You alluded to a possibility of failed fuel localized  
6 several times. The first time you alluded to it at the time of  
7 your conversation with Mr. Creitz.

8 THE WITNESS: Yes.

9 JUDGE SMITH: And that was on the morning of the 23th;  
10 that was before the pressure spike?

11 THE WITNESS: That's right.

12 JUDGE SMITH: Certainly at that time, his reference to  
13 failed fuel could not have had a relationship to any inferences  
14 to be drawn from the pressure spike?

15 THE WITNESS: Right.

16 JUDGE SMITH: However, later on, you discussed, you  
17 alluded to failed fuel. On page 5, you say, "I first became  
18 aware of core damage beyond local failed fuel when I was  
19 informed of the pressure spike."

20 Now, is that a reference to what you learned from  
21 Mr. Creitz, or did you learn it from other sources?

22 THE WITNESS: Judge Smith, I am having a hard time --  
23 here it is.

24 JUDGE SMITH: You're having a hard time following my  
25 question?



1 THE WITNESS: Yes.

2 JUDGE SMITH: I infer from the paragraph on page 5, the  
3 second sentence in the first complete paragraph -- "I first  
4 became aware of core damage beyond local failed fuel when I  
5 was informed of the pressure spike, the postulated mechanism  
6 of a hydrogen 'explosion,' and the reaction of zirconium and  
7 water as the source of hydrogen."

8 Now, implicit in that statement is, when you became  
9 aware of this phenomenon, you had already been aware of local  
10 failed fuel.

11 My question is, what was the source of that awareness?  
12 I think Mr. Goldberg covered it, but I didn't quite follow it,  
13 and I am asking you to repeat it.

14 What was the source of that awareness in addition, if  
15 any, to Mr. Creitz's information to you?

16 THE WITNESS: I am sure we have difficulty with the  
17 qualitative nature of those words and the spectrum of things  
18 that one could describe as failed fuel.

19 I would characterize my understanding of the conversa-  
20 tion with Creitz as indicating some small cracks or perforations  
21 sufficient to let fission gas release from the annulus of the  
22 fuel lines.

23 The next major step I would characterize as coming from  
24 the conversation with Vollmer on the 29th and the briefing of  
25 Herbein.

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1           As I recall, the Herbein briefing said, "We may have  
2 some local fuel melting." Again, back to the Vollmer  
3 conversation that revealed local temperatures which could be  
4 interpreted in terms of flow blockage, one could conceive of a  
5 situation where there was local distortion of the fuel  
6 sufficient to perturb the flow distribution, perhaps sufficient  
7 flow starvation to even get some local fuel melting as Jack  
8 Herbein had said, but still not in my mind anything to come  
9 close to the suggested, calculated, significant crater that the  
10 industry advisory group deduced about a month later.

11           JUDGE SMITH: The direction of my questioning is -- I  
12 appreciate that answer, but the direction of my questioning is  
13 somewhat different.

14           We have already established that when Mr. Creitz  
15 mentioned the failed fuel to you in the morning, necessarily  
16 there could not have been an interpretation derived from the  
17 pressure spike because it hadn't happened yet.

18           How about your understanding of Mr. Herbein's comments?  
19 Do you know, were his impressions as reported to you made  
20 before he became aware of the pressure spike?

21           THE WITNESS: At no time on the 28th or 29th did Jack  
22 Herbein mention the pressure spike to me, and there is nothing  
23 in his briefing to the congressman on the afternoon of the  
24 29th that reflected that he was aware of the pressure spike and  
25 the zirconium-water reaction.

1 JUDGE SMITH: Is that your understanding also about your  
2 conversation with Mr. Vollmer, that he would not have been in a  
3 position to know of any pressure spike?

4 THE WITNESS: That's right. There was no discussion of  
5 hydrogen or pressure spike in that conversation.

6 JUDGE SMITH: So, in sum, all of your references to  
7 localized failed fuel derive from sources which were generated  
8 sometime before the pressure spike, at least that I have  
9 alluded to?

10 THE WITNESS: I don't think that's quite right. The  
11 sources, Vollmer and Herbein, the most explicit sources on the  
12 29th, those conversations were after the physical occurrence of  
13 the pressure spike, but prior to what I believe to have been  
14 the recognition of the pressure spike later in the evening or  
15 night of the 29th.

16 JUDGE SMITH: By either of those gentlemen?

17 THE WITNESS: That's right.

18 JUDGE SMITH: In several instances, you use modifiers  
19 in your testimony which could be just a manner of speech; they  
20 could also be disclaimers or derivative modifiers.

21 For example, on page 12, the first full paragraph, the  
22 second sentence: "I also heard or saw no indication that on  
23 March 28 the pressure spike had been properly" -- I emphasize  
24 the word "properly" -- "diagnosed as the product of a  
25 zirconium-water reaction or that the pressure spike caused the

6/ear/Eraser



1 plant staff to change or adopt a strategy for bringing the  
2 plant to cold shutdown that recognized the presence of  
3 hydrogen or non-condensable gas."

4 I recognize, taking that sentence in the context of  
5 your entire testimony that you could probably drop the word  
6 "properly" from your testimony.

7 But I am asking you directly: did you mean to modify  
8 or limit the diagnosis or suggest that there may have been an  
9 improper diagnosis?

10 THE WITNESS: My own belief is that there was not just  
11 an improper diagnosis but that there was no diagnosis. I  
12 would be very comfortable with the word "properly" deleted.

13 JUDGE SMITH: You have a similar use of modifiers in the  
14 next to the last sentence in that paragraph where you say,  
15 "Prior to May 9, 1979, I knew that a pressure spike had in some  
16 way been observed by numerous individuals on the day of the  
17 accident, but my overall awareness caused me to conclude that  
18 no one recognized the significance of the spike as a direct  
19 indicator of or as a direct measure of core damage on March 28."

20 There, the two words "direct" cause me to ask if those  
21 words are necessary to preserve the context of your meaning?

22 THE WITNESS: I don't believe those words are necessary  
23 to preserve the meaning of the sentence. On the other hand,  
24 the intent of the mailgram statement was to refute what appeared  
25 to be a direct correlation between the pressure spike and core

1 damage. So, I wanted to again emphasize that it is that clear  
2 correlation, direct correlation that I don't see evidence of.

3 JUDGE SMITH: Other than not sending a mailgram at all,  
4 what changes might you make in the mailgram if you were to be  
5 sending it based on the information you have today?

6 THE WITNESS: The first thing I would do is I would  
7 delete the introductory clause, "no evidence." It is very  
8 difficult to defend such apparent absolutes.

9 Outside of that, I believe the mailgram continues to  
10 reflect the true situation at the plant at the time of the  
11 pressure spike.

12 JUDGE LINENBERGER: Mr. Dieckamp, you indicated that  
13 this testimony, if I recall correctly, is indeed your work  
14 product; is that correct?

15 THE WITNESS: Yes, it is. I hesitated earlier. Instead  
16 of simply saying, "I think it's principal," I would have been  
17 willing to say, "virtually totally my work product."

18 JUDGE LINENBERGER: Approximately when was this work  
19 product completed?

20 THE WITNESS: I think that it was virtually completed,  
21 within a few words here and there, on the order of two weeks  
22 before its filing on November 1.

23 And it was generated in a period that perhaps covered  
24 three to four weeks prior to that.

25 JUDGE LINENBERGER: There has been considerable

1 discussion today, and indeed there was yesterday with Mr. Lowe,  
2 involving with Mr. Lowe the term "failed fuel" and with you the  
3 term "local failed fuel."

4 Part of that discussion, specifically the part that  
5 involves you today, I infer from that discussion that the  
6 initial concern about fuel failure derived from an observation  
7 of increased radioactivity somewhere; is that a correct  
8 inference on my part?

9 THE WITNESS: I think that's correct, that if you look  
10 at the first day, recognizing if you do not understand the  
11 hydrogen spike, the only direct indicator available to you that  
12 is readily understandable is the presence of radiation  
13 throughout the plant.

14 JUDGE LINENBERGER: I believe you have made yourself  
15 clear on this, but I would like to run through it just once  
16 more. I think that it is generally accepted practice on the  
17 part of the NRC to permit a nuclear power plant to operate with  
18 a certain albeit low percentage of fuel have cladding  
19 perforations as a result of let's say less than perfect  
20 manufacturing procedures and perhaps less than perfect  
21 quality assurance implementation along the way.

22 Have you in your comments before this Board today so  
23 far excluded such sources of radioactivity from your considera-  
24 tion, in other words radioactivity deriving from fuel less  
25 than perfect when inserted in a reactor?



1 THE WITNESS: When Mr. Creitz mentioned to me failed  
2 fuel and radiation in the plant, I testified earlier to  
3 Kemeny that my immediate reaction was one of, "Are you sure,  
4 because you're also telling me that the emergency systems  
5 operated and failed fuel is inconsistent with the design  
6 criteria for the emergency system."

7 I was of a mind that the radiation could conceivably  
8 have been explained by some degree of what you referred to as  
9 manufacturing procedures, perhaps confused by some activation  
10 of the oxygen in the water, things of that sort.

11 But I did not do any serious calculation or assessment  
12 of that. But I think when I in the testimony speak about  
13 failed fuel, I am speaking about something that goes beyond  
14 those what you might call as-built or minor defects that might  
15 develop in the course of operation.

16 JUDGE LINENBERGER: Several places in your testimony,  
17 you use the term "non-condensable gas." I should like to ask  
18 you whether it would in your view change the sense or meaning  
19 of your testimony in any way if instead of non-condensable gas  
20 the phrase "compressable gas" had been used.

21 THE WITNESS: I think the testimony could be potentially  
22 ambiguous if it said simply "compressable." I think non-  
23 condensable is differentiating the hydrogen from the steam.

24 JUDGE LINENBERGER: Are you saying then -- well, it  
25 will take me longer to avoid a leading question than is worth

1 the effort, I think -- are you saying then that you do make a  
2 distinction between non-condensable and compressible by  
3 virtue of the fact that under any conceivable condition  
4 existing in the plant, hydrogen would not be expected to under-  
5 go a phase change?

6 Is that the sense in which you want to stick with the  
7 term "non-condensable"?

8 THE WITNESS: No. It is not directed towards hydrogen.  
9 It is directed towards excluding the steam in the sense that  
10 if the bubbles in the loops that were present and having the  
11 potential to impede natural circulation were simply steam, then  
12 they could have been gotten rid of by simply pressurizing the  
13 system with water.

14 With the non-condensable hydrogen, one had always then  
15 the possibility of retaining these bubbles even though you had  
16 repressurized the system.

17 I don't know that it's particularly important relative  
18 to the spike in my mind, but I think it's important in terms of  
19 the next steps taken on the 28th in the sense that simple  
20 repressurization very likely would not have brought on natural  
21 circulation. There still could have been gas binding, and it  
22 did require forced circulation in order to get back to reliable  
23 cooling.

24 JUDGE SMITH: I forgot to ask a question when I was  
25 inquiring -- off the record.

1 (Discussion off the record.)

2 JUDGE SMITH: Back on the record.

3 On page 11 of your testimony and throughout, you pointed  
4 out that you had prepared yourself for testifying at the Hart  
5 committee, and as a consequence of that you became conversant  
6 with the plant parameters and the sequence of events.

7 But then after that, up until the time you sent the  
8 mailgram, and particularly for the purpose of the mailgram, you  
9 didn't conduct or cause to be conducted any particular inquiry  
10 into those events.

11 My question is: was any part of your confidence in the  
12 accuracy of the mailgram predicated upon a belief that if  
13 anyone had interpreted the pressure spike in terms of hydrogen  
14 combustion or core damage, that that is something that would  
15 have necessarily come to your knowledge in the due course of  
16 your inquiries and in the due course of your company reports?

17 THE WITNESS: I think it would have come to my awareness.  
18 If the basic statement of the mailgram was ever determined by  
19 our investigation to be inaccurate, I am not sure exactly sure  
20 what the time scale of that might have been.

21 I say that in the sense that I don't think there was any  
22 part of this that somehow had placed the organization on alert  
23 to make sure that that statement is correct.

24 And with respect to the not initiating any inquiry,  
25 certainly in the immediate time period, I had no reason to



1 believe that my statement was wrong or was being questioned.

2 MR. BLAKE: Judge Smith, was your question leading up to  
3 the point in time when you sent the mailgram?

4 JUDGE SMITH: Right, referring to your state of mind  
5 as of the time you sent the mailgram. And as you testified,  
6 you had participated a lot in the events during the accident,  
7 and then you had also done additional research preparing for  
8 the Hart inquiry.

9 But then you say, after that you made no particular  
10 study nor no particular consultation. Now, my question is  
11 predicated on a concept of the regularity of business, and that  
12 is certain events would be of such importance, of magnitude and  
13 of such interest that perhaps an assumption could be made that  
14 the events did not occur simply because you do not know about  
15 them; to the inference that had they occurred, it is of the  
16 magnitude and of the importance that normally would have come  
17 to your attention.

18 THE WITNESS: The pressure spike, the zirconium-water  
19 reaction and those kinds of things were a very prominent  
20 ingredient of the efforts conducted by the industry advisory  
21 group to reconstruct the accident and try to deduce the amount  
22 of core damage.

23 And that was an ongoing effort that extended prior to  
24 May 9 and beyond May 9. Perhaps the syntax is bad here in the  
25 sense that what is intended to be said is that I did not

1 conduct any special, specific inquiry for the purpose of  
2 writing the mailgram. I rather drew upon the general effort  
3 that was on-going and underway, and my knowledge of that effort.

4 JUDGE SMITH: Did a void of information that anyone had  
5 interpreted the pressure spike, the containment actuated spray  
6 as evidence of hydrogen in combustion and core damage, did the  
7 void of that information play any part in your belief that the  
8 mailgram was accurate in the sense that it is the type of  
9 information which, considering the circumstances of the  
10 reporting channels, would have come to your attention had there  
11 been such a belief and such an interpretation?

12 THE WITNESS: Yes. My conviction, as expressed in the  
13 mailgram, was a result of both what I knew and the void of what  
14 somehow had not been brought to my attention.

15 I was keenly aware of the manner in which Bill Lowe had  
16 specifically identified the pressure spike as a zirconium-water  
17 reaction, and I was keenly aware of the efforts that that  
18 discovery triggered off.

19 Likewise, from the things I was looking at and involved  
20 in -- namely operator interviews and sequence of events --  
21 there was nothing in those activities that came to the surface  
22 that said people identified the meaning of the spike and took  
23 these actions, or people did this or that.

24 My confidence, I think I would have to say, was indeed  
25 a combination of what I knew as well as the absence of

1 contrary information.

2 JUDGE SMITH: To complete the thought, absence of  
3 contrary information when in the course of normal events that  
4 contrary information would have come to your attention had it  
5 existed?

6 THE WITNESS: Yes, sir, I think so, because there was a  
7 tremendous concentration on trying to understand what happened  
8 on that day and why.

9 And so while the investigation was broader than just the  
10 hydrogen spike, clearly the hydrogen spike was, once discovered,  
11 almost a Rosetta Stone of deducing the degree of core damage.

12 So, it was a prominent item. And I have to say I was  
13 comfortable that had there been some indication that it had  
14 been earlier on recognized and the staff had taken specific  
15 actions in response to that recognition, I think I would have  
16 known that.

17 JUDGE SMITH: Did you ever tell any member of your  
18 organization with respect to the accident not to bring  
19 information to your attention?

20 THE WITNESS: Judge Smith, absolutely not. If anything,  
21 I aggressively took the opposite view. I felt very keenly that  
22 we had a special obligation to make sure that the accident was  
23 fully understood.

24 The mere fact, for example, that we had I think over a  
25 hundred people who were not from within our organization



1 participating in this industry advisory group would have made  
2 it absolutely impossible for me to have in any way controlled  
3 the information or prevented its availability to me.

4 JUDGE SMITH: If there had been an agreed-upon plan in  
5 your organization to withhold information that might have  
6 existed about the existence of the interpretation of hydrogen  
7 explosion and core damage on the 28th, do you have an estimate  
8 of about how many people would have to be involved in such an  
9 agreement?

10 THE WITNESS: Certainly a major fraction of the industry  
11 advisory group which I say from the time of the accident and  
12 the next three months encompassed more than 100 people. It  
13 would have taken a significant fraction of them.

14 It is my understanding, for example, that Mr. Lowe upon  
15 reaching his conclusion immediately talked to people at B&W, so  
16 it even goes outside the site.

17 I think there would have had to have been several  
18 hundred people whose actions and thoughts would have had to  
19 have been controlled to ever be able to bottle up that  
20 information.

21 JUDGE SMITH: How about a similar thought with respect  
22 to any documentation of any such interpretation and the  
23 profusion of copies of any such documentation?

24 Would that have been a problem of a widely based  
25 agreement to withhold information?

1 THE WITNESS: Judge Smith, we were living intimately  
2 with the NRC. We were directly involved with them every  
3 minute of every day.

4 They were also directly involved independent of the  
5 company with the industry advisory group. I just can't  
6 conceive of how any analysis somehow could have been submerged.

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1           JUDGE SMYTH: Each of these questions that I've asked  
2 Mr. Dieckamp seem to be questions easily answered and the  
3 answers favor his point of view. I want to assure the parties  
4 that I've looked at his testimony and I simply cannot think  
5 of questions other than making the necessary witnesses come  
6 here that are in a position to contradict his testimony. I  
7 can't think of anything else to ask on the other side of the  
8 issue, neutral or any other way. But these questions are  
9 questions that I felt are necessary to complete the record.

10           JUDGE LINENBERGER: Mr. Dieckamp, this may be  
11 difficult, but I want you to think in the context of what you  
12 knew about the accident prior to May 9th and try if you can  
13 to exclude what you learned about it since May 9th and describe  
14 as best you can your thought processes resulting from the  
15 information given to you that there had been some high in-core  
16 thermocouples reach higher than would appear to be appropriate  
17 or allowable with respect to the NRC regulations.

18           THE WITNESS: My first information of that sort from  
19 Dick Vollmer was roughly something in excess of 30 hours after  
20 that plant had shut down. One certainly would have expected  
21 the core thermocouples to be at or essentially at the mixed  
22 mean outlet temperature of the plant.

23           As I recall, Dick Vollmer called my attention to the  
24 fact that some of those thermocouples were still reading  
25 500 degrees Fahrenheit or so. I recall that we talked briefly



1 about the fact that the temperatures seemed to be trending  
2 downward at least in a rough way which might not be inconsistent  
3 with the fission product decay.

4 I particularly in my work in the fast breeder areas have  
5 been aware of failure mechanisms involving cladding, ballooning,  
6 and local flow blockages that are particularly more prevalent  
7 than breeder reactors where fuel elements are housed and the  
8 coolant is not simply connected across the full region. So I  
9 immediately thought in terms of local flow blockage. My mind,  
10 though, did not extend to the concept of the kind of massive  
11 level that we now know is there.

12 I can't say to you that I in any way quantify that  
13 in terms of whether it is one elements or two elements. I just  
14 can't say that I did.

15 I do recall that in the Herbein debriefing on the 29th,  
16 he kind of intimated that we would be opening up the reactor  
17 head in a few days and that it might take a few weeks to remove  
18 these damaged elements and the plant would be back on line.

19 I think towards the end of that briefing I did, just  
20 on the basis of my limited knowledge, suggest that we might not  
21 be in a position to make quite such an optimistic forecast,  
22 and I suggested that we had a lot yet to learn before we knew  
23 where we were going to go.

24 But I could not say to you that I was somehow able to  
25 bring that information into a clear picture in my mind of how

1 much damage or how extensive.

2 JUDGE LINENBERGER: I gather from the way you have  
3 discussed this matter, however, that it was the purpose of  
4 these thermocouples to measure mixed mean coolant outlet flow  
5 rather than any fuel cladding hot spot temperatures under  
6 normal operating conditions; is that correct?

7 THE WITNESS: It is my understanding that these fuel  
8 lines are arrayed above the actual fuel region of the reactor.  
9 They cover the general cross-sectional of the top end of the  
10 reactor. They do not reach down into the fuel region. They  
11 only sense temperature that is brought to them normally by  
12 the water coolant. I would not expect them to equal the mixed  
13 mean outlet. I would expect them to reflect some remnant of  
14 the power distribution of the plant, again depending upon the  
15 mixing. I'm just not enough of an expert to know what that is,  
16 but they clearly do not measure fuel temperature. They clearly  
17 do not measure cladding temperature.

18 To the extent that they were reading in excess of  
19 2000 degrees Fahrenheit, I do not know what they were reading.  
20 They may have been seeing some hot gas from the zirconium-water  
21 reactor; some very hot gas.

22 JUDGE LINENBERGER: Finally, so far as the thermocouple  
23 subject is concerned, was there any information available to  
24 you during the time frame of the first several days post-accident  
25 about the number of thermocouples allegedly reading high compared

1 with the total number of thermocouples in the core?

2 THE WITNESS: I think the discussion with Dick Vollmer  
3 involved some recognition that some thermocouples were reading  
4 high but not all. My probably more meaningful awareness of  
5 the odd distribution of those -- maybe we really ought to call  
6 them millivolt readings -- came from the Gary Miller taped  
7 reconstruction of the date of the accident, where in that  
8 document he makes reference to the fact that when he was  
9 informed of the thermocouple readings -- these millivolt  
10 readings, that one thing that confused him was the fact that  
11 there were very high ones and others that were low, and others  
12 that were just open circuit and not reading at all.

13 I think it was not until a month after the accident  
14 when the actual millivolt reading were rediscovered that I  
15 saw a plot that showed this great disparity in the readings.

16 JUDGE LINENBERGER: At the bottom of page 16 of your  
17 testimony, there is a quotation ascribed to Special Inquiry  
18 Group report Part 3 of Volume II in which the very last two  
19 words of that quotation on page 16 mention "reactor building."

20 Now, I just want to get some language -- make sure  
21 there are no language inconsistencies. Is that term "reactor  
22 building" in your way of thinking separate and distinction and  
23 something else than containment building?

24 THE WITNESS: No. I read it to mean the containment  
25 building.



1 JUDGE SMITH: Throughout this hearing, I've seen the  
2 initials RB. That is usually a reference to reactor building.  
3 That would be the same concept as containment building?

4 THE WITNESS: I'm probably not the best expert on that,  
5 but I think that's right. I know some of the systems are  
6 referred to as reactor building closed cooling water, that kind  
7 of thing. I think it is a shorthand.

8 JUDGE SMITH: I've come to recognize in the proper  
9 context RB as being reactor building, which I always thought  
10 to be the containment building.

11 THE WITNESS: I think that is correct.

12 JUDGE LINENBERGER: I thought I detected somewhere  
13 a use for the term reactor building in testimony other than  
14 yours to be synonymous with primary system, whereas containment  
15 building was used to designate the secondary system or outside  
16 of the secondary system, outside the primary system. So I  
17 just wanted to make sure in context of this page 16 that to  
18 your way of thinking, reactor building does indeed mean contain-  
19 ment building and not the primary system.

20 THE WITNESS: That's right. Judge Linenberger, you  
21 may be recalling that that is one of the elements of the mailgram  
22 that it tends to clarify the "New York Times" article which I  
23 think did make the exact confusion that you mentioned.

24 JUDGE LINENBERGER: At the top of page 14, the first  
25 full sentence at the top of that page completes a paragraph that

1 carries over from page 13, and that sentence indicates that  
2 there was physical evidence to demonstrate that the containment  
3 pressure recorder chart was not removed until March 29th of  
4 1979.

5 Are you in a position to advise us the nature of that  
6 physical evidence about the date of removal of that chart?

7 THE WITNESS: I can't give you word and verse. I think  
8 it is in an NRC interview with Illjes most likely in the  
9 September, 1980 time frame -- I'm not clear on that -- where  
10 he is shown the charts without any interruption that would  
11 coincide with removal on the 28th and asked whether he can  
12 think of any mechanism whereby the chart could be removed with-  
13 out interrupting the ink line. I don't know the exact cite  
14 for that.

15 JUDGE LINENBERGER: I apologize for jumping around here,  
16 but I am following an internal thought process.

17 On page 10, in the carry-over paragraph in the top  
18 third of that page, I conclude and I think indeed what this  
19 says is that containment building gas was sampled approximately  
20 48 hours subsequent to the initiation of the accident, whereas  
21 the first calculation of the volume of non-condensable gas in  
22 the primary system was measured approximately 24 hours earlier  
23 than that.

24 The logic of the order of those events seems strange  
25 to me. Perhaps it is not. Again, putting yourself in the frame



1 of mind of what you recall of those early days, does this  
2 sequence appear logical to you?

3 THE WITNESS: I think it is logical strictly on the  
4 pragmatic basis of the things that had to be done to accomplish  
5 the two tasks.

6 I think the two tasks to measure the volume in the  
7 primary system and to get a sample of the containment building  
8 volume were both triggered about the same time upon recognition  
9 or postulating of the hydrogen zirconium-water reaction  
10 mechanism.

11 The volume of the gas in the primary system was  
12 immediately deducible through Boyle's Law or Charles' Law,  
13 one or the other, simply by adding water to change the water  
14 volume of the primary system and observing the pressure change.

15 In fact, I think the first measurement or the first  
16 calculation was done by taking some available data from a  
17 prior sequence or prior evolution that made such data available.

18 In the case of the gas samples, I think it was a matter  
19 of figuring out how to do it, building any equipment that might  
20 have been necessary, making up the procedures, getting NRC  
21 approval of those procedures, things of that sort.

22 JUDGE LINENBERGER: All right, sir. I think that is  
23 all the questions I have.

24 JUDGE WOLFE: Looking at page 3 of your written  
25 testimony, Mr. Dieckamp, in that large paragraph beginning with



1 the words "By way of background," you testify as to that which  
2 Mr. Floyd, James Floyd, stated during the tour of the TMI-2  
3 control room on May 7, 1979. That's correct, is it not?

4 THE WITNESS: Yes.

5 JUDGE WOLFE: Have you set down in that paragraph  
6 which carries over to the next page all that which Mr. Floyd  
7 did state during the course of that tour on May 7th?

8 THE WITNESS: No, I did not.

9 JUDGE WOLFE: What didn't you state or what haven't  
10 you set down there that he did state during the course of the  
11 tour? For example, I don't know whether it is relevant or  
12 not, but let's try it for size.

13 THE WITNESS: The concept of that portion of the tour  
14 was to have Mr. Floyd, who was at the time the Supervisor of  
15 Operations -- but I should emphasize had not been present on  
16 the date of the accident -- to have him walk the visitors  
17 through what I might call a sequence of events to, if I can  
18 kind of outline, to say: here are the operators here, and  
19 the turbine trips or something, and then this happens, and you  
20 can see it on this instrument, and then over here is where  
21 an emergency feedwater valve was closed and had to be opened,  
22 here is where you can see the pressurizer go, and here is where  
23 you can see the containment building pressure.

24 It was in the course of that kind of a walking of the  
25 visitors through that sort of couplings the sequence of events

1 to the instrumentation in the control room and the physical  
2 layout of it that Mr. Floyd made the comment I recount here  
3 and which in turn was prominently part of the "New York Times"  
4 article.

5 JUDGE WOLFE: Did Mr. Floyd make it clear during the  
6 course of the tour that he had not been on the TMI-2 site at  
7 the time of the pressure spike?

8 THE WITNESS: I cannot state that he did. I have no  
9 recollection that he did.

10 JUDGE WOLFE: Did Mr. Floyd make it clear during the  
11 course of the tour that the GPU operating staff had not been  
12 actually aware of the pressure spike on March 28th, 1979?

13 THE WITNESS: No. On the contrary, I think the thrust  
14 of what he said was that the operators saw the spike. The  
15 operators knew or deduced that the spike was real because of  
16 the coincidence, two channel requirement to initiate the core's  
17 spray system. As I recall, that was the gist -- the gist of  
18 his comment was: here is where the spike was. The spike was  
19 real. We know it's real because it triggered the core's sprays.  
20 The guy reached down and turned off the core's sprays, and an  
21 NRC man was standing right there. That's how I remember this  
22 event, that small piece of it. This was maybe two minutes  
23 out of a 30 or 40 minute activity.

24 JUDGE WOLFE: I'm sorry. I don't exactly follow. You  
25 stated that an NRC inspector was standing by at the time of the

1 spike? Mr. Floyd said this during the course of the tour, or  
2 was this reported in the "New York Times" article that such  
3 occurred?

4 THE WITNESS: It is my clear recollection that Mr.  
5 Floyd made clear reference to the immediate presence of an  
6 NRC let's call him inspector -- maybe just NRC employee -- and  
7 that in turn then was reflected in the New York Times article.

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1 JUDGE WOLFE: When you state on page 4 at the bottom  
2 of the page that you were disturbed by the "New York Times"  
3 article, and accordingly wrote the Mailgram, I'm sort of  
4 interested in the use of the word "disturbed."

5 In writing your testimony, was that an understatement  
6 or an overstatement when you used the word "disturbed,"  
7 because I have read your Mailgram, and, for example, you  
8 say in your Mailgram that the story in the "New York Times"  
9 is grossly in error. Another place you say you regret that  
10 this aspect of the accident has been misunderstood; and  
11 finally in the ending paragraph of the Mailgram it was, in  
12 substance, that this "Times" article represented inaccurate  
13 reporting.

14 Now back to my question on the use of the word  
15 "disturbed;" what was meant by it?

16 THE WITNESS: I think "distrurbed" is probably an  
17 understatement of my emotional reaction. I was clearly  
18 concerned at the inference of withholding information.

19 I guess it is even more than an inference; it is  
20 directly stated.

21 JUDGE WOLFE: Were you concerned more about the  
22 inference or the allegation of withholding of information;  
23 were you more concerned about that or were you more concerned  
24 about the express allegation in the article that the control room  
25 and federal inspectors knew that the fuel core was seriously

1 damaged, as far as they reported and the seriousness of the  
2 accident made public?

3 THE WITNESS: I was concerned about the very strong  
4 inference that there was withholding of information, and I  
5 think maybe it is helpful to recognize that almost from the  
6 start of the accident there was a lot of difficulty in  
7 communicating with the public through the media; the communi-  
8 cations on the day of the accident and immediately thereafter  
9 were clearly inadequate. There were implications that the  
10 company had -- suggestions that the company had not leveled  
11 with the public.

12 I was concerned that if the focus of the investigation  
13 turned on these kinds of questions it would greatly complicate,  
14 if not impede, our ability to elicit a clear, sound objective  
15 of the development of the accident and its causes.

16 JUDGE WOLFE: I have nothing further.

17 JUDGE SMITH: Ms. Bernabei, are you ready to conduct  
18 your cross-examination now?

19 MS. BERNABEI: Yes, we will proceed, but we do reserve  
20 the right to have Mr. Dieckamp come back at another time.

21 JUDGE SMITH: If you wish, you may change the normal  
22 sequence and limit your cross-examination this afternoon to  
23 questions that have been asked this afternoon and begin your  
24 cross-examination plan afresh later on; or whatever approach  
25 you wish.

1 MS. BERNABEI: It may make more sense to start with  
2 the documents that were available to us at this point. Would  
3 it be possible to sit in the circle?

4 JUDGE SMITH: Yes.

5 Ms. Bernabei, there is no microphone there. That may  
6 cause some problems.

7 MS. BERNABEI: There is a trailing one.

8 CROSS-EXAMINATION

9 BY MS. BERNABEI:

10 Q. Mr. Lieckamp, I am going to ask you a few preliminary  
11 questions which I think may narrow the scope of the disagree-  
12 ment, at least, between the intervenors and the company.

13 I believe in answer to a question from Judge Smith  
14 you stated that if you were to write the Mailgram today you  
15 would not use the terms "no evidence;" is that correct?

16 A. That is right.

17 Q. And I believe your testimony was it is because it  
18 is difficult to defend and absolute or deliberate phrase  
19 such as "no evidence;" is that correct?

20 A. This experience has suggested that to me; that is  
21 correct.

22 Q. So it is fair to say that regardless of how you  
23 regard or consider the evidence, there is some evidence to  
24 indicate that there was an appreciation of the pressure spike  
25 in terms of core damage?



1           A. There is testimony which some can, or have,  
2 interpreted as evidence which contradicts the Mailgram. I  
3 do not interpret it that way.

4           Q. Let me ask you the question again. There is some  
5 evidence to indicate that site personnel interpreted the  
6 pressure spike on March 28th to indicate core damage, regard-  
7 less of whether or not you believe that testimony.

8           MR. BLAKE: I'm sorry; what is the question?

9           MS. BERNABEI: Regardless of whether he believes the  
10 testimony, there is such evidence which indicates that there  
11 was an interpretation of the pressure spike on March 28th  
12 in terms of core damage.

13           MR. BLAKE: I hear a statement. I don't hear a  
14 question.

15           MS. BERNABEI: That was the question.

16           BY MS. BERNABEI:

17           Q. Mr. Dieckamp, do you understand?

18           A. There is evidence that some have interpreted to  
19 indicate.

20           Q. You were in Harrisburg for most of the day on March  
21 28th, is that correct?

22           A. I think I left Harrisburg in the 4:00 to 4:30  
23 sort of time frame, and I arrived in Harrisburg I think in  
24 the early evening of the 27th.

25           Q. And you were here to address the Pennsylvania

1 Public Utility Commission; is that correct?

2 A. Yes.

3 Q. I believe that it is your testimony that you learned  
4 of the accident -- or what was then known as a transient --  
5 at TMI-2 sometime in the 9:00 a.m. time frame?

6 A. That is true.

7 Q. I believe you talked to Mr. Creitz and Mr. Arnold  
8 at this time about the transient or the accident; is that  
9 correct?

10 A. That is true.

11 Q. I believe during your conversation with Mr. Creitz  
12 or Mr. Arnold you learned there had been certain off-site  
13 releases; is that correct?

14 A. I don't know if I learned of that at 9:00. I  
15 certainly didn't learn that there had been releases of any  
16 magnitude or would seem at that time to be significant.

17 Q. That was not my question, Mr. Dieckamp. Did you  
18 learn that there had been off-site radiation releases during  
19 those conversations with Mr. Arnold or Mr. Creitz at 9:00  
20 a.m. or so in the morning?

21 A. Again, I think that depends upon -- I can't be  
22 real clear on that as to whether or not such a thing was  
23 said. What I do recall is that I have no recollection of  
24 anyone suggesting to me that there were off-site releases  
25 of any significance. I think --

1 Q. Did you testify at a prior time, specifically to  
2 a special inquiry group, that in fact you were informed of  
3 an off-site release in this time period, either from Mr.  
4 Creitz or Mr. Arnold?

5 A. There is testimony in the -- I think it is the  
6 SIG that makes reference to that kind of thing, yes.

7 Q. Did you also testify to the Kemeny Commission that  
8 you learned of off-site releases of radiation in the morning  
9 conversation with Mr. Creitz and Mr. Arnold?

10 A. I would have to look at the specific citations.  
11 I think I may have said something to the effect that I was  
12 informed of -- I don't know if I said radiation releases  
13 or potential radiation releases that people were monitoring;  
14 I think it was of that order.

15 I have no --

16 Q. Off-site releases?

17 A. I have no recollection -- and I don't think my  
18 testimony at any time quantifies off-site releases.

19 Q. But didn't you testify that you were aware of off-  
20 site releases, the assumption being that those were beyond  
21 normal background levels?

22 A. I don't make that assumption.

23 Q. Did you so testify -- I am talking now about the  
24 Kemeny Commission.

25 MR. BLAKE: Did he so testify to what?



1 MS. BERNABEI: That he was aware of off-site radiation  
2 releases at 9:00 a.m. through conversations with Mr. Arnold  
3 and Mr. Creitz.

4 THE WITNESS: Could you read the citation for me?

5 BY MS. BERNABEI:

6 Q I am referring to page 122. It appears as Joint  
7 Mailgram Exhibit 66.

8 A. Kemeny or SIG?

9 Q. Kemeny.

10 JUDGE SMITH: It is going to be irresistable for  
11 people to refer to these exhibits according to the number on  
12 the index, which is quite logical.

13 THE WITNESS: What was the page number again, please?

14 MS. BERNABEI: I believe it is 122.

15 JUDGE SMITH: Ms. Bernabei, would you give me the  
16 number of that exhibit?

17 MS. BERNABEI: I believe it is Exhibit 66. We do not  
18 have a copy.

19 JUDGE SMITH: Do you have a copy of the index?

20 MS. BERNABEI: Yes. It is 66, according to the index.

21 JUDGE WOLFE: Mr. Lewis, could you help Ms. Bernabei  
22 find that document, whatever she is looking for?

23 BY MS. BERNABEI:

24 Q Mr. Dieckamp, have you had a chance to review page  
25 122?

1 A. Yes, I have.

2 Q. It indicates, does it not, that radiation measure-  
3 ments have been made off-site and that levels of radiation  
4 release were detected?

5 A. Why don't I just read what it says?

6 Q. Mr. Dieckamp, I would like you to answer my question.  
7 I am asking you, Mr. Dieckamp --

8 JUDGE SMITH: He is answering your question. It is  
9 a perfectly direct answer to your question.

10 MS. BERNABEI: I don't believe it is appropriate for  
11 him to read his interview into the record. My question to  
12 him was whether the interview indicated off-site radiation  
13 releases had been measured.

14 MR. BLAKE: I think it is probably more reliable  
15 evidence if you are asking him what he said at that point in  
16 time, to read into the record from the transcript, just as  
17 the witness offered to do.

18 JUDGE SMITH: What is your objection to him looking  
19 at it and using the exact words? I don't understand conceiv-  
20 ably how you could object to that.

21 MS. BERNABEI: I have certain questions to ask the  
22 witness, and these exhibits are in the record for the Board  
23 and for everyone else to read. I asked him a specific  
24 question.

25 JUDGE SMITH: I know, but we want an accurate answer

1 unless there is a purpose. Are you testing his memory on  
2 that page; is that the purpose?

3 MS. BERNABEI: No.

4 JUDGE SMITH: Are you testing his interpretation of  
5 it?

6 MS. BERNABEI: Yes.

7 JUDGE SMITH: You are testing his interpretation, so  
8 you want him in his own words to interpret what that means?

9 MS. BERNABEI: No. I want him to state whether or  
10 not he testified, on the basis that I pointed out, to the  
11 Kemeny Commission that he knew through morning conversations  
12 of the off-site radiation releases. That was my question.

13 JUDGE SMITH: You are inviting a yes or no answer?

14 MS. BERNABEI: That is correct.

15 THE WITNESS: Ms. Bernabei, I cannot answer that  
16 question yes or no because it does not properly characterize  
17 what I said, in my judgment. What I said was that radiation  
18 measurements had been made of the site and that any levels  
19 of radiation release were very, very minimal, you know, mr,  
20 some very small kind of a level, and did not indicate, you  
21 know, that there was any state of continuing uncertainty  
22 or chaos or the like.

23 What I said about radiation was I testified in the  
24 Kemeny Commission that Creitz told me that measurements had  
25 been made and that any levels were very, very, very minimal.



BY MS. BERNABEI:

1 Q And those were, however, above background levels;  
2 is that correct?

3 A I don't know that from this statement.

4 Q Did you testify to a Special Inquiry Group that  
5 you were familiar with radiation alarms as a result of your  
6 conversations with Mr. Creitz and Mr. Arnold?

7 A I think that is right. Again, I would appreciate  
8 the citation.

9 Q Page 3 of your Special Inquiry Group testimony.  
10 Assuming for a moment that you are right from your  
11 memory, would not those alarms indicate off-normal radiation  
12 releases; that is radiation releases beyond normal background  
13 levels?

14 A They would indicate off-normal radiation levels  
15 within the plant.

16 Q I'm talking about off the site.

17 A I cannot draw that conclusion.

18 Q It is fair to say, however, that your Special  
19 Inquiry Group testimony indicates that you were aware of off-  
20 site releases of radiation, however minimal, through your  
21 9:00 a.m. conversations?

22 MR. BLAKE: Objection. Are you now testing his memory  
23 of what he said before, or can you provide the witness with  
24 a reference to the testimony that you are talking about?

25 MS. BERNABEI: I did.

1 MR. BLAKE: I'm sorry if I missed it. Could you give  
2 me from the index the number and the transcript page?

3 MS. BERNABEI: It is page 3 of the Special Inquiry  
4 Group testimony.

5 BY MS. BERNABEI:

6 Q. Mr. Dieckamp, you did state that, did you not, in  
7 that testimony?

8 A. On page 4 of the SIG testimony, it says it picks  
9 radiation alarm; the declaration of the site in general  
10 emergency; the off-site radiation monitoring; the indicated  
11 levels of off-site activity releases, specifically at Golds-  
12 boro; the indication of the impression from the plant that  
13 there had been fuel damage.

14 Q. I believe you testified that that testimony indicates  
15 that you were aware of off-site radiation releases; is that  
16 not your testimony?

17 A. I think my testimony is what it says.

18 Q. I am asking you whether that testimony indicates  
19 you were aware of off-site radiation releases at 9:00 a.m.  
20 on March 28th.

21 A. It says that I was aware, but it does not explicitly  
22 state what those levels were or whether they are important  
23 or not.

24 JUDGE SMITH: I deem that a yes answer.  
25

Goldman  
ClearEraser

BY MS. BERNABEI:

Q You addressed the Public Utility Commission a short time after your conversations with Mr. Creitz and Mr. Arnold; is that correct?

A That is correct.

Q In that presentation or address you did give a scan of Three Mile Island; is that correct?

A Yes, I did.

Q In that address you did not tell the PUC that there were off-site releases of radiation, did you?

A May I read one sentence from that statement?

Q Can you answer my question and then do whatever you want to do, Mr. Dieckamp?

JUDGE SMITH: Let's just stop. I see a tension that is going to exist throughout the afternoon and next week unless we lay the groundrules for this type of examination.

You are asking fairly simple questions, and you are inclined to get simple answers.

She is entitled to that, Mr. Dieckamp. Now, sometimes it will be impossible for you to answer yes or no, but when you can answer yes or not even though it may be incomplete, she is entitled to build her case the way she feels it should be built.

At the same time you are entitled personally, and as a party to this proceeding, to have incomplete answers



1 explained. One way or the other we are going to accommodate  
2 both your needs, your company's needs, and Ms. Bernabei's  
3 needs, without prejudice to anybody.

4 What I would recommend that you do is carefully consider  
5 her simple questions and answer them yes or no, but then  
6 tell the need, that it is incomplete, or say that you can't  
7 answer yes or no; but somewhere along the line we are going  
8 to have to have a regular protocol, and there is no point  
9 in having an argument every time a question comes up.

10 You might suggest another method, but that is the  
11 method I suggest. But some way everyone's needs will have  
12 to be accommodated, and the most efficient way is the most  
13 desirable way.

14 BY MS. BERNABEI:

15 Q Can you answer the question, Mr. Dieckamp?

16 A. What is the question.

17 Q Did you state to the PUC in your presentation in  
18 describing the condition of TMI-2 that off-site radiation  
19 measurements had shown low background levels of radiation?

20 A. No, I did not state that.

21 Q In fact, you stated, did you not, that you knew of  
22 no off-site radiation releases that would in any way affect  
23 the public?

24 A. That's right.

25 Q At this presentation you promised to get back to

1 the PUC later in the morning; is that correct?

2 A. That is correct.

3 Q You promised to get more information; is that  
4 correct?

5 A. Yes, that is correct.

6 Q And you did, in fact, make a second presentation  
7 about the status of TMI-2 in the late morning; is that correct?

8 A. Yes.

9 Q In preparation for that second presentation, you  
10 spoke to Mr. Creitz or Mr. Arnold; is that correct?

11 A. That is correct.

12 Q Speaking to Mr. Creitz or Mr. Arnold, did you obtain  
13 any information about off-site radiation releases that had  
14 been measured?

15 A. I may have received some information from them.  
16 I may have also received some information from the Scranton  
17 news conference that I also attended in addition to talking  
18 to Creitz and/or Arnold.

19 Q Sticking for the moment to the conversations with  
20 Mr. Creitz or Mr. Arnold, did either of them in their  
21 conversations indicate to you that there had been off-site  
22 releases above background levels?

23 A. I'm not sure that they did.

24 MS. BERNABEI: I would like to mark as TMIA Mailgram  
25 Exhibit 3 two pages identified for us as Mr. Dieckamp's notes

1 from March 28th.

2 (Whereupon, the document referred  
3 to was marked as TMIA Mailgram  
4 Exhibit No. 3 for identification.)

5 BY MS. BERNABEI:

6 Q Mr. Dieckamp, I would like you to review the two  
7 pages of notes that have been handed to you.

8 A Yes.

9 Q Can you identify TMIA Mailgram Exhibit 3?

10 A I can't identify it from what you have given me,  
11 but if that is what it is, I'll accept that.

12 Q Can you tell us what the document is?

13 A It is the notes that I was scribbling while talking  
14 to Mr. Creitz at 9:00 in the morning on one side. On the  
15 second side is phone numbers plus other scribbles, including  
16 a notation of 3 mr.

17 Q That notation of 3 mr. that would be 3 millirems;  
18 is that correct?

19 A I think so.

20 Q As to the right of Mr. Creitz' name; is that correct?

21 A Yes.

22 Q Would that indicate to you or refresh your  
23 recollection as to whether you obtained any information about  
24 radiation levels above background levels from Mr. Creitz  
25 prior to your second presentation to the PUC?



1 A. I do not know when that 3 mr notation was made  
2 there. I do not know the source of it.

3 Q. There has been testimony from Mr. Creitz that he  
4 believes that he informed you about the these radiation  
5 releases that were above background levels prior to 12:00;  
6 does that refresh your recollection?

7 MR. BLAKE: Objection.

8 BY MS. BERNABEI:

9 Q. Does that refresh your recollection as to whether  
10 you were so informed?

11 MR. BLAKE: Objection. What is the testimony to  
12 which Ms. Bernabei refers?

13 MS. BERNABEI: The testimony of Mr. Creitz' deposition  
14 given in the discovery portion of this proceeding, of which  
15 Mr. Blake, I am sure, is aware.

16 MR. BLAKE: I would like a citation of that, if that  
17 is the basis for counsel's question. I would like a citation  
18 and I would like an opportunity to look at that citation  
19 rather than rely on a record of what she depicts his testimony  
20 to be.

21 MS. BERNABEI: I will cite it, but I don't think  
22 my cross-examination should be interrupted if Mr. Blake is  
23 not prepared.

24 JUDGE SMITH: You are digressing in an irrelevant  
25 direction, whether Creitz said it or not. The deposition

1 of his testimony is not being referred to for the truth of  
2 it, but solely to see if it refreshes Mr. Dieckamp's memory.  
3 Of course, we will not tolerate a practice of false memory  
4 refreshers, but we are not going to stop every time to inquire  
5 as to a memory refresher.

6 If it is being alluded to for proof of the contents  
7 of it, it may very well be that this doesn't refresh his  
8 memory, and then look at all of the time we would have wasted.  
9 I can see a nice, neat clean way would be not to allow any  
10 memory refreshing unless we could actually assure that that  
11 memory refresher was accurate.

12 We don't have a jury, and Mr. Dieckamp is unlikely to  
13 be stampeded into having his memory incorrectly refreshed.  
14 I don't see any harm in it, given her representation that  
15 that is it.

16 I mean that is your representation; is that correct,  
17 Ms. Bernabei?

18 MS. BERNABEI: That is correct.

19 JUDGE SMITH: I would prefer that if you suspect  
20 her representation or if you later on decide that it is wrong,  
21 and if you think that it caused some damage, that we address  
22 it then. It is a very limited purpose for which she is using  
23 it.

24 MR. BLAKE: All right, sir; I will try to minimize  
25 my questions, but we have now had a fair number of instances

1 of representations, and representations of which I would not  
2 agree, of people's past testimony; so I am more cautious  
3 maybe than I need be.

4 If all we were given was the page at this juncture,  
5 that would be sufficient for my purposes.

6 JUDGE SMITH: When you use some information to refresh  
7 a memory, even though you are not using it for the truth of  
8 it, you should give some basic information about that so that  
9 it can be confirmed or refuted.

10 MS. BERNABEI: First, I would like to say that I have  
11 my problems, Mr. Blake, with your representations of what  
12 you are going to be using as well.

13 For the record, Mr. Creitz' deposition is at 25, 27  
14 and 28.

15 MR. BLAKE: Thank you.

16 BY MS. BERNABEI:

17 Q Mr. Dieckamp, does that refresh your recollection?

18 JUDGE LINENBERGER: Excuse me just a moment.

19 (Pause.)

20 JUDGE SMITH: You may proceed.

21 BY MS. BERNABEI:

22 Q Mr. Dieckamp, does that refresh your recollection  
23 as to whether or not Mr. Creitz told you prior to your  
24 second presentation to the PUC that there were above back-  
25 ground levels of radiation releases?



1 A. Does what refresh my recollection?

2 Q. Does my representation that Mr. Creitz has testified  
3 in his deposition in this proceeding that he believes that  
4 he informed you prior to noon on that day of radiation  
5 releases in the possible area of 3 millirems; does that  
6 refresh your recollection of whether he did inform you  
7 prior to your second presentation to the PUC?

8 A. It does not help my memory, no.

9 Q. Do you know whether or not Metropolitan Edison  
10 measured off-site releases above background levels prior to  
11 8:30 a.m. on March 28th?

12 A. I can't be absolutely certain about that, from my  
13 own memory. There are references to that in the Special  
14 Inquiry Group, and people have studied that. There is a  
15 statement in there on page 868, Volume II, Part 3, that  
16 says measured off-site radiation levels on March 28th  
17 generally remained below background levels except for a  
18 reading of 50 mr per hour at 3:48 p.m.

19 I personally have not looked at all of the data, so  
20 I can't be sure, of my own knowledge.

21 Q. Your answer is --

22 JUDGE LINENBERGER: Please wait.

23 JUDGE SMITH: Excuse me, but a potential technical  
24 confusion is beginning to perhaps snowball just a bit here,  
25 and I feel obliged to see how we can clear it up.

1           When a term such as "mr" is used, it is generally  
2 considered to refer to a radiation field intensity of so many  
3 milliroentgens per hour.

4           If the "r" is said to stand for "rem" rather than  
5 "roentgen," that refers to the dose that a person at that  
6 point might have received in some period of time.

7           The exchange here involving 3 mr and what the witness  
8 just read involving, I believe, 50 mr make it completely  
9 unclear to me and I think to the record what it is that is  
10 being talked about.

11           I really think this ought to be cleared up before too  
12 many mrs are tossed around here to add to the confusion.

13           BY MS. BERNABEI:

14           Q   Which one were you talking about, Mr. Dieckamp, in  
15 terms of the 3 mr that appears next to Mr. Creitz' name?

16           A   I am willing to believe that the 3 mr that is on  
17 that page was a shorthand notation meaning 3 mr per hour.  
18 Again, I just can't reconstruct that there would have been  
19 a situation where it would have been integral dose as contrasted  
20 with the field.

21           Q   That is above background radiation levels; isn't  
22 that correct?

23           A   Yes. 3 mr per hour would be above background levels.  
24 I don't know where that number comes from.

25           Q   You did address the PUC the second time on that

1 morning; is that correct?

2 A. Yes, I did.

3 Q. That was about 11:30 a.m.?

4 A. The transcript of that suggests that it was about  
5 11:30 a.m., and I would accept that.

6 Q. I would like to show you what I will mark as TMIA  
7 Exhibit 4, which is a transcript to which I believe you  
8 referred.

9 (Whereupon, the document referred  
10 to was marked as TMIA Mailgram  
11 Exhibit No. 4 for identification.)

12 BY MS. BERNABEI:

13 Q. Can you identify TMIA Exhibit 4? That is the  
14 document you have before you.

15 A. Yes, this one is marked TMIA Exhibit 4.

16 Q. Mr. Dieckamp, can you identify for us what that  
17 document is?

18 A. It is a transcription of a tape recording made  
19 during the meeting with the PUC on the morning of March 28,  
20 1979.

21 Q. And it is in fact a transcription which you directed  
22 be prepared and forwarded to the Pennsylvania Public Utility  
23 Commission; is that correct?

24 A. Yes.

25 Q. Referring you now to the second page, the second



1 page is a transcription of your two presentations to the PUC  
2 on the morning of March 28; is that correct?

3 A. Yes.

4 Q. Now it is fair to say that you did not report to  
5 the PUC at 11:30 a.m. any knowledge or any information that  
6 radiation levels above background levels had been detected;  
7 is that correct?

8 A. That is right.

9 Q. In fact, you stated, and I'm quoting, "There is no  
10 evidence of any radiation that is detectable above the back-  
11 ground levels in the area." Is that correct?

12 A. That's correct.

13 Q. Now assuming for the moment that there is evidence  
14 that off-site releases above background levels had been  
15 measured and in fact Mr. Creitz did communicate that informa-  
16 tion to you, this statement is not correct; is that right?

17 A. Must I accept the assumption?

18 Q. Let me go back for a moment. I think you testified  
19 that from your 9:00 a.m. conversations you knew about off-  
20 site radiation releases, however minimal; is that correct?

21 A. Yes.

22 Q. Therefore, it was not correct to say at 11:30 a.m.  
23 to the Pennsylvania Public Utility Commission that there is  
24 no evidence of any radiation releases above background levels.

25 A. I don't know that that is wrong.

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1 Q You knew at 9:00 a.m. that there were in fact  
2 radiation releases above background levels, did you not?

3 A No, I did not. I don't recall --

4 Q Isn't that the import of your testimony to the  
5 Kemeny Commission and the Special Inquiry Group, that, however  
6 minimal, there were off-normal or above background levels of  
7 radiation?

8 A I don't see that in the SIG, and I don't think  
9 I interpret that out of the Kemeny Commission.

10 Q I won't argue with you. I will just check and make  
11 sure that you understand my question.

12 Starting on page 3 I believe you say you learned from  
13 talking to Creitz and Arnold of the shutdown of the plant,  
14 the actuation of the emergency core cooling system, the radiation  
15 alarms, the declaration of the site as a general emergency,  
16 the off-site radiation monitoring, the indicated levels of  
17 off-site releases, is that correct?

18 A Yes, that is what it says.

19 Q I believe you read into the record a portion of  
20 the Kemeny Commission interview. Is it your testimony that  
21 that does not indicate a knowledge or awareness of off-site  
22 radiation releases above background levels?

23 A I don't see any reference to background levels in  
24 that, I don't think. Let me look at it again.

25 (Witness perusing document.)

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1 Q I would like to read the specific portion, and I  
2 just want your testimony as to how you would interpret this  
3 statement. You are talking again about a 9:00 conversation  
4 with Mr. Creitz, and I believe you say, starting on line 8,  
5 "He said, you know, that there had been, you know, scrambling  
6 plans, there had been actuation of the emergency safety  
7 features, the emergency core cooling systems emergency  
8 features, and there a concern evidenced about fuel damage,  
9 that radiation measurements had been made off-site, that any  
10 level of radiation releases were very, very minimal, you know,  
11 mr, a very small kind of level."

12 Is that correct?

13 A. That's what it says.

14 Q You today do not remember what time Mr. Creitz  
15 informed you of the 3 millirems that are represented on TMIA  
16 Exhibit Number 3; is that correct?

17 A. I do not recall that Creitz informed me of that.

18 Q It is fair to say that whatever information you  
19 had on March 28th about off-site releases in the morning  
20 period came from Mr. Creitz: is that correct?

21 A. No, that is not correct.

22 Q Who else informed you about radiation or possible  
23 radiation releases from TMI-2?

24 A. There were some very definite statements in  
25 Governor Scranton's press briefing that I attended. The time



1 that is indicated on the copy available to me is 10:55 a.m.,  
2 and it says, "No increase in normal radiation levels has  
3 been detected."

4 Q. Now he would have obtained his information supposedly  
5 from the company, would he not?

6 A. I think that is correct.

7 Q. It is fair to say that Mr. Creitz, as a member of  
8 the company, would have more direct information about off-site  
9 radiation releases than would the Lieutenant Governor; isn't  
10 that correct?

11 A. I think that's not unreasonable, but I think it is  
12 also true that there was a direct open telephone line from  
13 the plant to the Bureau of Radiation Detection at all times  
14 on the morning of the 28th, and there probably was not a  
15 similar direct line to Walter Creitz.

16 Q. You have no information to indicate that the State  
17 or the Commonwealth would have better information than  
18 Metropolitan Edison about radiation releases on the first day.

19 A. No, I do not.

20 Q. I believe it is your testimony that you talked to  
21 Mr. Arnold and Mr. Creitz at least twice in the morning period  
22 prior to noon; is that correct?

23 A. I think so; I think that is right.

24 Q. I believe it is also your testimony that you did  
25 not learn or become aware of the specific plant parameters

1 or conditions during those conversations.

2 A. I became aware of the kinds of things that are  
3 contained in my filed testimony and are scribbled on the  
4 exhibit that we were looking at earlier.

5 Q Did you become aware of the specific temperatures  
6 or pressures?

7 A. No.

8 Q Did you become aware of whether or not the strategy  
9 being used for bringing the reactor to a stable condition  
10 was a repressurization or depressurization strategy?

11 A. I was not aware of the details on the 28th.

12 Q Now, you met Mr. Herbein, Mr. Miller and Mr. Kunder  
13 on the steps of the State Capitol at about 2:00 or 2:30 p.m.  
14 on that date; is that correct?

15 A. My recollection has it that it was about 2:30;  
16 that's right.

17 Q I believe it is your testimony that those three  
18 gentlemen did not tell you or give you any specific information  
19 about plant conditions or about the strategy being used at  
20 the reactor at that time; is that correct?

21 A. That is correct.

22 Q I believe it was your testimony that you didn't ask  
23 any questions at that time about that type of detailed informa-  
24 tion; is that right?

25 A. I think my testimony is that they were late for

1 their meeting with the Lieutenant Governor and the conversation  
2 was very, very brief.

3 Q. You had attempted to attend the briefing with the  
4 Lieutenant Governor, had you not?

5 A. Yes.

6 Q. Why did you want to attend the briefing with the  
7 Lieutenant Governor?

8 A. I thought it was an opportunity for me to be present.

9 Q. You wanted to learn more because there would be  
10 the site personnel physically in charge at that briefing; is  
11 that correct?

12 A. Yes.

13 Q. But you were not permitted to attend the briefing;  
14 is that right?

15 A. That is right.

16 Q. Given the fact that you were not allowed to attend  
17 the briefing, did you attempt to contact any site personnel  
18 about what was going on at TMI-2?

19 A. I had just talked to Herbein, Miller and Kunder,  
20 and gained from them the impression that the plant was stable,  
21 and I did not sense a need to contact the site.

22 Q. I believe you testified that you wanted to go the  
23 briefing to learn more specific information about the status  
24 of the plant; is that correct?

25 A. Yes, that was my view prior to seeing those three



1 people.

2 Q Given that you had not been able to attend the  
3 briefing and obtain that specific information, did you make  
4 any attempt to contact site personnel on March 28th to  
5 determine with more specificity the condition at TMI-2?

6 MR. BLAKE Objection; asked and answered.

7 JUDGE SMITH: You just caught me at a moment when I  
8 was talking to Judge Wolfe, and I don't have the question.

9 MS. BERNABEI: The question is: given the fact that  
10 he wanted to attend the briefing but was not permitted to  
11 attend the briefing, and the reason for his desire to attend  
12 the briefing was he would obtain more specific information,  
13 did he attempt after being excluded to contact site personnel  
14 directly?

15 JUDGE SMITH: Did he attempt to what?

16 MS. BERNABEI: Did he attempt, after being excluded  
17 from the briefing, to contact site personnel about the  
18 conditions?

19 JUDGE SMITH: The question that I recall was that  
20 he was excluded, and why did he want to attend? I don't  
21 recall any question about a post-exclusion attempt to contact  
22 plant personnel.

23 MR. BLAKE: If I might, Judge, I believe it was the  
24 same question; and, in fact, his answer was that there wasn't  
25 any because he had seen the plant personnel on the way coming

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1 up the steps, which was after he had been excluded. That was  
2 the question and answer.

3 JUDGE SMITH: Well, rather than quarrel about it,  
4 let's put it to Mr. Dieckamp. Do you recognize that as being  
5 a question that you answered before?

6 THE WITNESS: I think so, but I am going to answer it  
7 again. What is the question now?

8 BY MS. BERNABEI:

9 Q The question is: given your exclusion from the  
10 briefing and given the fact that you wished to attend the  
11 briefing to obtain specific information about the conditions  
12 of the reactor, did you after your exclusion then attempt  
13 to obtain that information directly from site personnel?

14 A No, I did not because I saw those three senior  
15 personnel upon leaving the Capitol Building.

16 Q And it is your testimony that at no time after  
17 your exclusion did you talk to site personnel on March 28th?

18 A That's right, other than to Herbein, Miller and  
19 Kunder on the steps of the Capitol.

20 Q You spoke to Mr. Arnold, did you not, in the 3:00  
21 to 3:30 time frame?

22 A It is my understanding that there is testimony to  
23 that effect. I do not recall it.

24 Q But you have no reason to believe that Mr. Arnold's  
25 prior testimony to that effect is incorrect?

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1 A. No, I do not.

2 Q. And during that conversation or during that period  
3 of time of 3:00 to 3:30, did Mr. Arnold convey to you any  
4 knowledge or information about the specific conditions at  
5 TMI-2?

6 A. Not that I can recall.

7 Q. I believe it is your testimony that at some time  
8 after leaving the Capitol you returned by car to your home  
9 in New Jersey; is that correct?

10 A. That is correct.

11 Q. And I believe it is also your testimony -- you have  
12 testified at prior times that you left the Capitol alone;  
13 that is with no other licensee personnel?

14 A. My prior testimony did not reflect that anyone else  
15 was with me. I have come to understand now that I was in  
16 error on that.

17 Q. How did you come to understand that?

18 A. In the course of trying to provide direct evidence  
19 for the manner in which I returned to New Jersey, we encountered  
20 an American Express, I think, charge at a restaurant in  
21 Trexlertown, Pennsylvania, and that expense account item  
22 included the names of Jim McConnell and Ken McKee; and, of  
23 course, going back to them they identified their memory of  
24 that date.

25 Q. Did they identify that they were present with you



1 on the steps of the State Capitol?

2 A. Yes, they did.

3 Q In none of your prior interviews or in your deposi-  
4 tion in this proceeding have you identified those individuals  
5 as accompanying you, have you?

6 A. That is right. To this day I still have no memory  
7 of their having been present.

8 Q And I believe you stated in your deposition that  
9 you were certain -- or you were fairly sure -- that you left  
10 the State Capitol alone; is that correct?

11 A. Left to my own memory, that would be my position.

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1 BY MS. BERNABEI:

2 Q Mr. Dieckamp, you did not wait for Mr. Miller,  
3 Mr. Kunder and Mr. Herbein to speak to them after their  
4 briefing with the Lieutenant Governor; is that correct?

5 A No, I did not.

6 Q You returned home sometime after leaving the state  
7 capital; is that correct?

8 A That's right.

9 Q Did you receive or seek any further information  
10 about TMI-2 from the time you left the steps of the state  
11 capital until you returned home on the evening of March 28?

12 A I have no direct recollection, but I am informed  
13 that there is testimony from others, and I think you already  
14 mentioned Bob Arnold, that I spoke with him sometime in that  
15 time period between leaving the state capital and my recollec-  
16 tion of when I left to go home.

17 Q Other than that conversation with Mr. Arnold, did  
18 you speak to anyone else about the status of Three Mile  
19 Island?

20 A I have no recollection.

21 Q Did you obtain any information about Three Mile  
22 Island on your trip home?

23 A The only information that I could identify is  
24 Governor's Scranton's characterization of the situation, which  
25 apparently occurred after his meeting with Herbein, Miller and

1 Kunder, in which he said that "The situation is worse than  
2 the company had originally led us to believe." I think  
3 that's generally what he said.

4 Q There was a suggestion that perhaps the company  
5 had misled the Commonwealth, is that correct, at least that's  
6 what you understood?

7 A Yes, I think that's right.

8 Q You heard this over a car radio I believe you  
9 testified?

10 A Yes.

11 Q I believe you testified or stated at a prior time  
12 that you were shocked or stunned of this news; is that  
13 correct?

14 A Yes, I was.

15 Q Did you attempt to find out what the situation was  
16 after you heard this news on the car radio?

17 A No, I did not, because he did not reflect any  
18 information that was in some way different from what I had  
19 gathered from Herbein, Miller and Kunder.

20 Q I assume you understand it is a serious charge or  
21 a serious criticism that the company had misled the Common-  
22 wealth of Pennsylvania; is that correct?

23 A (No response.)

24 Q I'm talking about your understanding of what  
25 Mr. Scranton said on March 28; that would have been a serious



1 criticism or charge?

2 A. Certainly, I considered his language as serious.

3 Q. And yet you, as President of GPU, did nothing to  
4 correct or inquire about that situation at the time you heard  
5 it?

6 A. I continued on my way home.

7 Q. At any time on the evening of March 28, did you do  
8 anything to inquire or determine why Mr. Scranton had made  
9 that statement and whether there was a basis for that  
10 statement?

11 A. No, I did not.

12 Q. I believe it was your testimony that you spoke to  
13 Mr. Arnold on the evening of March 28; is that correct?

14 A. That's right.

15 Q. And that's the next information you got about the  
16 plant?

17 A. That's correct.

18 Q. Did Mr. Arnold in that conversation communicate to  
19 you any of the specific conditions or parameters of the  
20 reactor?

21 A. My memory of that conversation relates dominantly  
22 to the repressurization of taking the plant solid and  
23 starting the pump. I have no recollection of discussion of  
24 temperatures or flow rates or pressure spots or anything of  
25 that sort.

1 Q Is it fair to say that this is the first conver-  
2 sation in which anyone described to you a strategy to bring  
3 the reactor to a stable condition?

4 A That's right.

5 Q Do you know today the time at which a repressuriza-  
6 tion strategy was commenced at TMI on March 28?

7 A Yes. I think it was started in the neighborhood  
8 of 5:30 p.m.

9 Q From whom do you derive that information?

10 A I derive that largely by looking at the records as  
11 to when the pressure in the plant began to increase and when  
12 the makeup pumps were turned on to begin to inject water into  
13 the plant.

14 Q Is it your information that prior to, I believe you  
15 said, 5:30 this late-afternoon period, that the makeup pumps  
16 had not been on? Is that your information, Mr. Dieckamp?

17 A It is my impression that there had not been a  
18 significant repressurization of the plant prior to this time  
19 period; as I say, roughly 5:30.

20 Q Is it fair to say that there had been some re-  
21 pressurization of the plant prior to 5:30?

22 A I think you would have to define "some." If I  
23 looked at the plant pressure, it perhaps drifts upwards some-  
24 what, but I'm not sure that there is a conscious plan there to  
25 fully repressurize the plant.

1 Q. Was there a conscious plan to begin repressuriza-  
2 tion at an earlier time than the 2:30 to 3:00 timeframe?

3 I'm asking you for your knowledge now of what happened.

4 A. My knowledge is not derived from myself alone. It  
5 comes from looking at operator testimony, particularly the  
6 testimony of Chwastyk.

7 My impression of his testimony is that he feels that  
8 he led an effort to reestablish the bubble in the pressurizer.  
9 As I read his testimony I find that to be the manner in which  
10 he characterizes -- in which I think he characterizes his  
11 prime objective.

12 I don't really hear him saying that "it was my inten-  
13 tion to repressurize." As a matter of fact, he explicitly  
14 testified that when the order from Herbein came to repressurize,  
15 he objected to it.

16 Q. Just talking about Mr. Chwastyk, isn't it a fact  
17 that repressurization began at the 2:30 timeframe with the  
18 turning of the heaters and the pressurizer and the closing of  
19 the block valve at 3:08?

20 A. I find it hard to believe it started at 2:30 when  
21 the block valve was opened at 3:08.

22 Q. They began the heaters and the pressurizer, is  
23 that correct, some time prior to 3:08?

24 A. I'm not sure. If the Sequence of Events say yes,  
25 then it is. I just don't happen to know.



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1 Q And they did close the block valve at 3:08, which  
2 would be the beginning of a repressurization strategy; is  
3 that correct?

4 A They closed it at 3:08, and they opened it again  
5 at roughly a quarter to 5:00 to 5:00.

6 Q Closing the block valve at 3:08 has been termed  
7 -- and I'm talking in terms of the National Safety Analysis  
8 Center study, the NSAC study of the accident -- as the beginning  
9 of repressurization and the end of a repressurization strategy;  
10 is that correct?

11 A It is my understanding that NSAC does describe that  
12 time period as some repressurization.

13 Q Returning now to your knowledge on March 28, I  
14 believe other than Mr. Arnold's conversation on the evening  
15 of March 28, it is your testimony that you had no knowledge of  
16 the specific plant conditions throughout the day and no  
17 knowledge of the strategy to bring the reactor under control  
18 until the conversation with Mr. Arnold in the evening of  
19 March 28.

20 A That's correct.

21 Q Are you familiar with a Mr. Cherry, Bud Cherry?

22 A Yes, I am.

23 Q What was his position at the time of the accident?

24 A He was a Vice-President of Planning for the service  
25 company.

1 Q As such he reported directly to you; is that  
2 correct?

3 A That is correct.

4 Q Mr. Cherry has a nuclear background; is that right?

5 A That's correct.

6 Q In fact, he was one of the individuals you called  
7 on to aid you in calling outside technical support to TMI in  
8 the aftermath of the accident?

9 A On Friday the 30th; that's right.

10 Q Do you remember any conversations with Mr. Cherry  
11 on March 28 about the condition or status of Three Mile  
12 Island 2?

13 A I have no memory of any conversation.

14 MS. BERNABEI: I would like to mark as TMIA Exhibit 5  
15 a confidential memorandum from Mr. Cherry to Mr. Dieckamp  
16 dated March 29, 1979.

17 (Whereupon, the document re-  
18 ferred to was marked as TMIA  
19 Mailgram Exhibit No. 5 for  
20 identification.)

21 BY MS. BERNABEI:

22 Q Mr. Dieckamp, do you have that before you?

23 A No, I do not.

24 (Document handed to witness.)

25 Q Mr. Dieckamp, you produced this document,

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1 confidential memorandum, to TMIA in the course of your depo-  
2 sition in this matter on October 4 of this year; is that  
3 correct?

4 A. That is correct. I discovered -- in the course of  
5 preparing for that deposition I inquired as to whether this  
6 document had been produced. I found that it had not been  
7 produced earlier and inquired as to whether it should because  
8 of its relationship to communications. As a result it was  
9 produced.

10 Q It indicates, does it not, specifically on page 2,  
11 the fourth full paragraph, that Mr. Cherry spoke to you on  
12 March 28 about the TMI accident?

13 A. It indicates that he spoke to me, yes.

14 Q Either from this memorandum or your general  
15 knowledge of Mr. Cherry's responsibilities, it is fair to say  
16 that he had some responsibilities regarding GPU's communica-  
17 tion of information to the public about the TMI accident;  
18 is that correct?

19 MR. BLAKE: Objection.

20 JUDGE SMITH: I didn't understand the question. Could  
21 you repeat it?

22 MS. BERNABEI: I'll rephrase it.

23 JUDGE SMITH: I'm looking at the fourth paragraph down.

24 MS. BERNABEI: I'm trying to establish the foundation  
25 for the memorandum.



1 BY MS. BERNABEI:

2 Q Mr. Cherry had certain responsibilities, did he  
3 not, Mr. Dieckamp, to communicate information about the acci-  
4 dent to the public on March 28?

5 MR. BLAKE: Objection. That question is beyond the  
6 scope of the direct.

7 MS. BERNABEI: It has to do with Mr. Dieckamp's  
8 knowledge of the accident on March 28, which is really the  
9 large part of his testimony in this case.

10 MR. BLAKE: I think you're free to ask the witness  
11 about Mr. Dieckamp's knowledge of the accident. Obviously,  
12 that's what we've been doing here for hours. But what you  
13 just asked is a question about Mr. Cherry's responsibilities  
14 regarding advising the public. That is a wide open question  
15 of the company withholding information, presumably, in that  
16 area, and that is not an issue in this proceeding.

17 MS. BERNABEI: It is to establish who Mr. Cherry was,  
18 what he was doing and whether or not he had a basis to make  
19 the statements that he made in this memorandum.

20 Obviously, as an officer of the corporation,  
21 Mr. Dieckamp may well have information about what Mr. Cherry  
22 was doing on the first day.

23 MR. BLAKE: I didn't object to any of those questions.

24 JUDGE SMITH: I think it is relevant, if we're talking  
25 about Mr. Cherry's communication to Mr. Dieckamp, to establish

1 what his opportunity to learn the facts were and the context  
2 in which he is communicating those facts.

3 We will overrule that objection.

4 BY MS. BERNABEI:

5 Q Do you remember the question, Mr. Dieckamp?

6 A No. Would you repeat it, please?

7 Q It is fair to say, is it not, that Mr. Cherry had  
8 certain responsibilities with regarding to reporting informa-  
9 tion about the accident to the public on March 28?

10 A I don't think it is fair to say that. That is not  
11 part of Mr. Cherry's job. He is not responsible for communi-  
12 cations to the public.

13 It is true, according to this memo -- I think it is  
14 true that on that day he provided assistance in trying to  
15 help the Parsippany staff understand what was going on. But  
16 it is not part of his responsibilities to communicate to the  
17 public.

18 Q I'm talking about March 28.

19 A Yes; I am, too.

20 Q On March 28, he did speak to a number of  
21 corporate officers, including Mr. Arnold, about the accident,  
22 is that correct, in the course of his duties?

23 A This document says that, yes.

24 Q It indicates also, does it not, that according to  
25 Mr. Cherry, Mr. Arnold was the source within the corporation

1 of hard information about the accident?

2 A. Would you direct me to that, please?

3 Q. It's the second paragraph on page 1, the fourth  
4 sentence, and I'll read it: "The only source of solid infor-  
5 mation was Bob Arnold and he understandably was extremely  
6 busy, and it was very hard to get through to him by telephone."

7 A. Yes.

8 Q. That would be Mr. Cherry's assessment of who with-  
9 in the GPU organization had information, hard information,  
10 about the accident; is that fair to say?

11 A. Mr. Cherry's assessment of who had solid informa-  
12 tion, whatever the difference is.

13 Q. Is it also fair to state that Mr. Cherry had an  
14 impression that the Metropolitan Edison headquarters people,  
15 that is Mr. Creitz and his organization, was not up to speed  
16 on understanding the accident? Is that fair to say?

17 A. Again, would you direct me to that, please?

18 Q. Again, it is the fourth full paragraph on page 2,  
19 the sentence beginning, "Another observation here is that  
20 apparently the Met-Ed headquarters guys were not completely  
21 up to speed on what was unfolding."

22 A. Yes.

23 Q. That appears to be Mr. Cherry's assessment of  
24 Mr. Creitz and his organization and their understanding of the  
25 accident on March 28?



**CONFIDENTIAL**

**Inter-Office Memorandum**

28418-A

Date: March 29, 1979

**GPU Service**

Subject: TMI #2 Accident

To: MR. H. M. DIECKAMP

Location: Parsippany

This memo will summarize my observations as the events surrounding the Three Mile Island #2 incident unfolded on March 28. There may be inaccuracies, due to the perspective from which I observed things in Parsippany.

There are two or three major observations which I should hit first. First, of the Service Corp. officers, only Graham and I were here initially. Murray arrived from D.C. around 1:00 pm. Second, it was very difficult to obtain any reliable, hard information particularly during the early part of the day. The only source of solid information was Bob Arnold and he understandably was extremely busy, and it was very hard to get through to him by telephone. Third, because of the absence of many key individuals, particularly in the Communications area, there was substantial difficulty in handling some of the inquiries. I should note here that Rich Esteves did an outstanding job in handling hundreds of inquiries in the first couple of hours, with very little information to deal with.

Let me now chronologically indicate what occurred here, and observe some of the problems. In so doing, I should note that there is no attempt here to criticize the performance of anyone, but rather to attempt to improve our ability to react to serious situations and communicate those situations to the public.

I was first advised of the problem at Three Mile Island at about 9:20 am by V.P. Zodiaco, who had heard about it from somebody, who had heard about it on the radio. I immediately tried to call Arnold; I couldn't get through to him. I called Sims who didn't know anything about it. Sims contacted PJM who appraised him of what had occurred. I then went over to the Communications area and found that Esteves was the only one there. They were being barraged with telephone calls from wire services, newspapers, tv stations, etc. They were just then (about 9:30 am) getting a first report of what had happened from Bob Arnold.

I tried to work with Esteves to make some sense out of the information that he was getting. At the same time, Rich was trying to communicate with the Met Ed people to see what they were doing. Fifteen or twenty minutes later, I called Mr. Kuhns who had not been notified of what had happened. By this time, I had talked to Bob Arnold and gotten a first hand report from him of the event. Observation....we should put in place a procedure which gets hard information out to key individuals as soon as possible, when events of this magnitude occur. Some of the early information that was released indicated a very low degree of seriousness to the accident.

I then went back to Rich Esteves and we got in communication with Met Ed who read

us a preliminary press release. The Met Ed release was substantially underplaying the seriousness of the incident at that time (at least the release was substantially different from the report which I had just received from Bob Arnold). Additionally, the interaction that Rich had with the lower level Met Ed personnel people was something of an adversary interaction where I felt that Rich was being viewed as the enemy.

A few minutes later, John Graham came over. He had been contacted by Liberman and Kuhns regarding the impact on the stock and what should be done vis-a-vis the Stock Exchange. John and I then worked with Rich to try to draft a GPU news release.... something which could be released to the various wire services and the Exchange. In the meantime, there were literally hundreds of phone calls coming in that Rich was trying to deal with by himself.

Another observation is that we should consider what kinds of back-up should be provided to the people in Communications because in this situation it was clear that Rich was really on his own, and there was nobody else over there to really assist.

About this time, Ferrar indicated he had a call from the Lieutenant Governor's office which communicated unhappiness about the fact that various state officials had not been notified of the accident until around 7 am, or some three hours after the initiation of the sequence of events. Had we known at that time that the alarms had not tripped until 7 am, we could have communicated back to the Governor's office that this was the case and the notification, at least in our view, was timely, and perhaps mitigated some of the flak which occurred from the presumably late notification.

John Graham and I then spoke to Walter Creitz who was about to sign off on a news release from Met Ed. The news release again was more or less consistent with the earlier version prepared by Met Ed and it, in our view, underplayed the seriousness of the event. We indicated this to Walter and he indicated that he would get back to Bob Arnold to get an update. Another observation here is that apparently the Met Ed headquarters guys were not completely up to speed on what was unfolding and, again, this I think reflects a need to improve the communication of hard information in a consistent way to key individuals in the system. This difficulty in communication persisted, perhaps not surprisingly, throughout the early afternoon and really existed until I spoke to you and got your view of the state of the reactor, etc. I think it was really only at that point that I had the full understanding of the situation and the condition of the plant.

Another item which occurs to me was the deficiency in our ability to get wire service report, tv coverage, etc., first hand. Throughout the day yesterday, we were receiving second and third hand reports of what had been in the news. This caused some difficulty in that we were being requested to react to these stories without having first seen them.

I'm sure you recognize the importance of having all of the key people up to speed on the status of situations such as this. We had a number of calls, for example, from reactor suppliers. One, in particular, came from Ted Stern of Westinghouse. After having received early information on the event which indicated that all systems functioned properly, that there had been no releases, and that, in effect, everything had worked, Westinghouse was preparing to go to KDKA in Pittsburgh with some of their engineers to explain how the safety systems functioned in an event like this and to try to turn this into a positive pitch for the industry. Needless



to say, that would have been a substantial embarrassment to Westinghouse and, I believe, to the industry's credibility had that come off, and had Stern not called, I'm afraid that might have occurred.

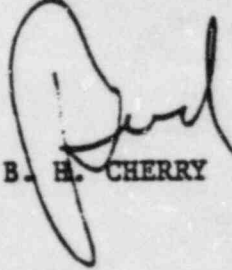
In addition, we were also receiving calls from senior executives from area utilities interested in trying to find out since they were being harrassed by various news agencies, why a similar occurrence could not happen at one of their plants.

A final note - when the news release was finally pulled together and signed off by everybody, it was Mr. Kuhns who provided the direction as to which of our various regulatory people and Board of Directors, etc. needed to receive copies of the release, and exactly what should be sent to them. Again, I think in the future, we should have a set procedure for releasing this kind of information and determining who gets it and when to assure that proper and timely distribution of this information occurs.

In summary, and upon reflection, I think that despite the observations made above, things went reasonably well, at least in Parsippany, yesterday. There was considerable confusion. I think that this was, at least in part, a result of the fact that many of the key individuals in company management were not here, and the effect of their absence was compounded by the difficulty in obtaining hard information on exactly what had gone on.

I recognize in light of the work which might be required during the next several days that you may not have a chance to focus on this memo, but I would certainly be available to talk to you about it whenever you have an opportunity.

BHC:so



B. H. CHERRY



1 A. That appears to be Mr. Cherry's assessment.

2 Q. Mr. Cherry has also indicated, has he not, his  
3 assessment that Metropolitan Edison press releases, at least  
4 the preliminary press release and perhaps a second press  
5 release later in the day, substantially underplayed the  
6 seriousness of the accident?

7 MR. BLAKE: Objection.

8 JUDGE SMITH: Your questions are coming very fast.  
9 I'm having a hard time keeping up with them. I'm still con-  
10 templating trying to find your reference and the question is  
11 over and the objection is here. It is just moving too fast.

12 MS. BERNABEI: We've all been through these documents  
13 before.

14 JUDGE SMITH: For me to keep up with you, you'll have  
15 to slow down; give us a chance to find the place.

16 Would you start this question again?

17 BY MS. BERNABEI:

18 Q. Mr. Cherry makes an assessment in this memorandum,  
19 does he not, that he believes the Metropolitan Edison head-  
20 quarters press releases substantially underplayed the serious-  
21 ness of the accident?

22 MR. BLAKE: My objection is that this is where I  
23 expected we were heading; in talking about the company and how  
24 the company might be portrayed in terms of its releases to  
25 the public and its withholding of information are

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1 characterizations about how the company performed in advising  
2 the public on that day. That is a big issue. It has been an  
3 issue for years. It is not the issue in this proceeding.

4 MS. BERNABEI: The statement in Mr. Dieckamp's mail-  
5 gram says there was no withholding of information. I think  
6 it can be read broader than the Board has read it; however,  
7 even assuming that it is as the Board has read it, I think  
8 it is relevant whether there was withholding of information  
9 earlier in the day as to whether the statement is correct that  
10 there was no withholding of information about the pressure  
11 spike and hydrogen generation.

12 Secondly, I think the contrast we are attempting to  
13 draw in this memorandum is the information available to his  
14 people in Reading, Pennsylvania, on the day of the accident  
15 and the information available to Mr. Arnold and Mr. Dieckamp,  
16 which apparently, according to Mr. Cherry, --

17 JUDGE SMITH: You have too many ideas in there. I  
18 assume you're on your first, and you're on your second and  
19 you're on your third. Let's take them one at a time.

20 Number one, with respect to the issue being broader  
21 than we have stated it; we have had a conversation on which  
22 we said that the phrase in the mailgram, "no one withheld  
23 information," was to be deemed -- and we will allow  
24 Mr. Dieckamp to correct us -- but was to be deemed to mean  
25 any such information, that is, information referring back to

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1 the rest of the sentence; and you agreed that that was an  
2 appropriate reading of that phrase.

3 MS. BERNABEI: I think it's relevant whether other  
4 information -- we don't know quite what information was  
5 apparently withheld or underplayed by Met-Ed; but I think  
6 it is relevant, if Met-Ed was underplaying or withholding  
7 certain information, as to whether the corporation at any  
8 other time, including the time of the pressure spike, with-  
9 held information.

10 JUDGE SMITH: If you can establish -- in my view, if  
11 you can establish a pattern of withholding information, that  
12 would be relevant to whether, with respect to the interpreta-  
13 tion of hydrogen and core damage, there was withholding of  
14 information.

15 However, that does not mean that you're going to have  
16 the unlimited right to talk about inadequate releases and that  
17 type of thing.

18 You would have to have pretty hard type of evidence be-  
19 fore you could use pattern type -- you know what I'm referring  
20 to by "pattern type" evidence.

21 MS. BERNABEI: I understand.

22 JUDGE SMITH: Do you agree with that, Mr. Blake?

23 MR. BLAKE: No, sir. I would agree with that, Judge  
24 Smith, if we were here trying the corporate question of the  
25 accuracy of the Dieckamp mailgram; but I don't understand it



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when the issue here is Mr. Dieckamp and Mr. Dieckamp's  
knowledge.

JUDGE SMITH: You completed the thought, the pattern  
of withholding information other than the information directly  
at issue to which Mr. Dieckamp was privy.

Now, do you agree with that?

MR. BLAKE: That's correct.

JUDGE SMITH: Do you agree with that?

MS. BERNABEI: Yes.

*Estbeck  
Clearance*

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1 JUDGE SMITH: Mr. Dieckamp, you heard us talk about  
2 what was meant about your last paragraph.

3 Is there any need to have Mr. Dieckamp clarify that,  
4 or is it not true that you agreed with the Board early in this  
5 proceeding that the language "No longer have any information"  
6 was a reference to the rest of that sentence and not a reference  
7 to any information of whatever nature?

8 MS. BERNABEI: I will state my opinion. My opinion  
9 was that it did refer to only the earlier portion, and in  
10 speaking to former Commissioner Gilinsky, that was not his  
11 interpretation. That is one of the reasons we wish to have  
12 him come testify.

13 JUDGE SMITH: That's exactly why we don't want him  
14 to testify; because it is pointless. Let's ask the man who  
15 wrote it to clarify it once and for all.

16 MS. BERNABEI: I think he has already testified. That  
17 is the portion I asked you to strike. I know what Mr. Dieckamp  
18 thinks and I think it accords with the Board's understanding.

19 JUDGE SMITH: You have demonstrated once again why we  
20 would not have Dr. Gilinsky come to the hearing.

21 BY MS. BERNABEI:

22 Q Mr. Dieckamp, it's Mr. Cherry's assessment, is it  
23 not, that there were Met-Ed press releases issued on March 28th  
24 which substantially underplayed the seriousness of the accident?

25 MR. BLAKE: Judge Smith, if you could just hold it for

1 a minute.

2 Ms. Bernabei, I don't know whether to object, because  
3 I'm not sure that I understood the Board's ruling with respect  
4 to the pattern.

5 Are we talking about a pattern as to any subject  
6 matter which Mr. Dieckamp might have knowledge? I could see  
7 that this could be abused very easily.

8 JUDGE SMITH: It is a problem that is going to require  
9 your customary alertness. It is going to require a lot of  
10 attention from our part.

11 I think under the Commission rules of evidence if we  
12 are determining whether Mr. Dieckamp withheld information  
13 about the subject, the narrow subject matter of this proceeding,  
14 and since it is a question of his act, we can inquire also  
15 whether there was a pattern of Mr. Dieckamp withholding informa-  
16 tion in a similar way as alleged or was privy to withholding  
17 information.

18 If it could be established that Mr. Dieckamp was  
19 an habitual, intentional information withholder, that would be  
20 relevant to whether he withheld information with respect to  
21 the narrow issue here. That's the only point. But now she's  
22 going into understatement, which that is going to be the  
23 problem. Where does withholding information feather out to  
24 something less than withholding information? This is something  
25 that is going to require a lot of work, I think, for the Board.



1 MS. BERNABEI: I think it is a judgment as to what  
2 Mr. Cherry's memorandum means. That's why I wanted to address  
3 Mr. Dieckamp on this.

4 JUDGE SMITH: I heard you ask a question twice now,  
5 and I don't understand the question with respect to the  
6 memorandum.

7 MS. BERNABEI: The memorandum makes mention to  
8 different press releases. Mr. Cherry's assessment appears to  
9 be the same with regard to both and they underplay the  
10 seriousness.

11 JUDGE SMITH: Where does it say that?

12 MS. BERNABEI: Page 2, the top sentence. "The Met-Ed  
13 release was substantially underplaying the seriousness of the  
14 incident at that time (at least the release was substantially  
15 different from the report which I had just received from Bob  
16 Arnold."

17 Then in the fourth paragraph on that page, Mr. Cherry  
18 is saying later in the day, John Graham, who I understand is  
19 the Treasurer, and I spoke to Walter Creitz who was about to  
20 sign off on a news release from Met-Ed. The news release again  
21 was more or less consistent with the earlier version prepared  
22 by Met-Ed and it, in our view, underplayed the seriousness of  
23 the event.

24 JUDGE SMITH: And then it goes on that corrective  
25 actions were going to take place.

1 MS. BERNABEI: That's correct.

2 JUDGE SMITH: Okay; inquire. I don't know where you're  
3 going to go with it, but you can inquire.

4 BY MS. BERNABEI:

5 Q Mr. Dieckamp, Mr. Cherry's assessment in his  
6 memorandum to you of March 29 is that at least the preliminary  
7 Met-Ed press release substantially underplayed the seriousness  
8 of the act; is that correct?

9 A That's what it says. I have nothing to add to that.

10 MR. BLAKE: Excuse me --

11 JUDGE SMITH: I see your concern; but unless she does  
12 something with it, it will be to no avail. I don't know how  
13 else she's going to be able to make the point she is entitled  
14 to make without asking some questions.

15 BY MS. BERNABEI:

16 Q Mr. Dieckamp, it also says that Mr. Cherry had  
17 a concern with the later press release, that it was more or  
18 less consistent with an earlier, preliminary one and underplayed  
19 the seriousness of events. Is that correct?

20 A That's what the memo says.

21 Q Now, you received this memo at or near the time it  
22 was written; is that fair to say?

23 A I guess I did. I have no real reason to believe  
24 it was delayed. I don't really know when I received it.

25 Q I believe you found it in your files in the course

1 of discovery in this proceeding; is that correct?

2 A. Yes, but I don't want to suggest that I did not  
3 see it earlier.

4 Q. And it is a confidential memo to you that has a  
5 confidential stamp at the top of the first page implying that  
6 it was to go to you and only you?

7 A. I don't know what it implies, because the company  
8 has no procedure relative to that sort of thing. It is  
9 something Mr. Cherry stamped on there apparently, and I have  
10 no --

11 Q. Is it fair to say that it was not for general  
12 distribution to the company?

13 A. I don't think it was generally distributed.

14 Q. Now, after receiving this memorandum, did you do  
15 anything to inquire or check into the assessments by Mr. Cherry  
16 that the Met-Ed press release substantially underplayed the  
17 seriousness of the accident?

18 A. I spent roughly the first month after the accident  
19 at Three Mile Island, and by the time I got back to my office  
20 and began to focus on things like this, events had passed this  
21 by. The communications problems were pretty well elaborated  
22 and reasonably understood.

23 Q. Did you direct that anybody else do an inquiry as  
24 to whether the press release substantially underplayed the  
25 seriousness of the accident?



1           A. I did not direct any follow-up investigations  
2 based upon this memorandum.

3           Q. Would you consider that if the press release was  
4 substantially underplaying the seriousness of the accident, it  
5 was a withholding of information?

6           A. I just don't know the definition of all those  
7 words. It's true also that the Kemeny Commission looked very  
8 explicitly at the information flow to and through the media.

9           Q. I'm asking you now, Mr. Dieckamp, whether it is your  
10 interpretation of Mr. Cherry's assessment that the press release  
11 substantially underplayed the seriousness of the incident at  
12 the time, whether that indicated to you a withholding of  
13 information?

14          A. Ms. Bernabei, I don't know what Mr. Cherry means  
15 by his words.

16          Q. So you don't understand it; is that correct?

17          A. I don't know the depth of his words. I can't say  
18 to you I don't understand what he's trying to say, but I don't  
19 have any ability from these words to assess the depth of the  
20 problem or the specifics of it or the degree.

21          Q. And you ordered no investigation or inquiry to  
22 determine the depth or specifics of the problem; is that right?

23          A. I did not.

24          Q. Mr. Cherry indicates in this memorandum that he  
25 considered you a source of hard information about the accident,

1 does he not?

2 A. I don't happen to read that in his memorandum.

3 Q. Doesn't he say that it was only at the point when  
4 he spoke to you on March 28th that he had accrued the full  
5 understanding of the condition of the plant?

6 A. I think that's what he says.

7 Q. Is it fair to say that he was talking to Mr. Arnold  
8 on and off during the day of March 28th?

9 A. The memo says that he was.

10 Q. And he considered Mr. Arnold someone who had hard  
11 or solid information about the plant; is that fair to say?

12 A. Yes.

13 Q. And yet he considered in his conversation with you  
14 that you provided him a fuller or more complete understanding  
15 of the condition of the plant? Isn't that what he says?

16 A. The sentence where he says that is not in my mind  
17 directly linked to Bob Arnold. I think it is not unreasonable  
18 to draw that inference, though. Again, I don't know what Bud  
19 Cherry means by his words.

20 Q. Mr. Cherry has, I believe you stated, a nuclear  
21 background, does he not?

22 A. Yes, he does.

23 Q. He has some depth and knowledge about reactors; is  
24 that correct?

25 A. Yes. In fact, I would say at the time of the

1 accident, his knowledge of light-water reactor fuel far  
2 exceeded mine, because his prior responsibility was for fuel  
3 procurement and all of the aspects associated with core  
4 licensing.

5 Q So when he said you gave him on that date a full  
6 understanding of the situation and the condition of the plant,  
7 that would indicate the understanding of specific parameters  
8 and conditions, would it not?

9 A I don't know what he meant by those words.

10 Q Can you remember today whether or not you had a  
11 discussion with Bud Cherry in which you gave him a full  
12 understanding of the specific conditions and parameters at  
13 TMI-2?

14 A Could you repeat the introductory part of the  
15 question?

16 Q Yes. Can you remember today whether or not you  
17 talked to Bud Cherry about the specific conditions at TMI-2  
18 on March 28th?

19 A I do not recall a conversation with Bud Cherry on  
20 March 28th.

21 Q Have you ever spoken to Mr. Cherry about this  
22 memorandum subsequent to March 29th?

23 A Yes, I have.

24 Q What was the substance of your discussion with  
25 him?



1           A. I have a vague recollection of having spoken with  
2 him, you know, a long time ago about it to the extent that we  
3 all agreed that there was a communications problem on the day  
4 of the accident.

5           I've spoken with him most recently now since it was  
6 offered up in the deposition and his words to me are that his  
7 understanding on that day bore no relationship to the real  
8 accident that occurred.

9           Q. But it's fair to say that his understanding was  
10 best from you; that his best understanding he got that day  
11 was from you and not from Mr. Arnold or any other official  
12 at GPU?

13          A. He makes his statement there that says, "I think  
14 it was really only at that point that I had the full under-  
15 standing of the situation and the condition of the plant."  
16 Again, I don't know what he means by that.

17          Q. You were involved I believe you state in your  
18 testimony in the company's inquiry investigation into the  
19 accident; is that correct? That is on page 11 of your testimony.

20          JUDGE SMITH: Have you passed this point now?

21          MS. BERNABEI: Yes.

22          JUDGE SMITH: If you are going to start on a new  
23 subject, it would be a good time to break.

24          MS. BERNABEI: There is one other document that I would  
25 like to address.

1 JUDGE SMITH: Also, I'm having some difficulty drawing  
2 the same inferences that you have drawn from this document.  
3 As you pointed out, the Board tends to be at a disadvantage.  
4 We are trying to read the document while you are asking  
5 questions about it and it tends to cause confusion. I hope  
6 you intend to offer it at a time this discussion is still fresh  
7 in our minds.

8 MS. BERNABEI: I was going to do it after my examination  
9 of Mr. Dieckamp.

10 JUDGE SMITH: At the end of Monday or Tuesday?

11 MS. BERNABEI: No, at the end of today.

12 BY MS. BERNABEI:

13 Q Do you have your testimony before you, Mr. Dieckamp?

14 A Yes, I do.

15 Q At page 11 you talk about your involvement in the  
16 company's inquiry investigation into the accident; is that  
17 correct?

18 A Toward the top of the page, yes.

19 Q This is the so-called Long investigation; is that  
20 right?

21 A Which?

22 Q The company's recorded investigation into the  
23 accident, is that the so-called Long investigation?

24 A I don't think of it so narrowly. Again, maybe you  
25 should be more specific with me in terms of which part of

1 page 11 you are referring to.

2 Q You're talking there about the company's investiga-  
3 tion into the accident. That was headed up by Mr. Long; is that  
4 correct?

5 A Do I see that on page 11?

6 Q No. I believe some of the activities you listed  
7 were in the course of the company's investigation?

8 A Yes.

9 Q The company's investigation was headed by Robert  
10 Long; is that correct?

11 A Robert Long was one of a number of people conducting  
12 parts of the total investigation. I'm not sure I know how to  
13 describe his responsibility in relationship to that of others,  
14 all of which were meshing together into that investigation of  
15 the accident.

16 Q It's fair to say that he was in charge of directing  
17 interviews of the operators after the accident?

18 A I think that's right. He was involved in that.  
19 I think as Mr. Van Witbeck testified, he was reporting to  
20 Bob Long the sequence of events and things of that sort; that's  
21 correct.

22 Q Is it fair to say that you reviewed and kept pretty  
23 close tabs on that investigation?

24 A I don't know what you mean by close tabs.

25 Q Did you review the interviews?



1 A. Did I what?

2 Q. Review the interviews.

3 A. I read the interviews after they were produced. I  
4 played no role in their production or editing or transcription.

5 Q. Is it fair to say that prior to any report by  
6 Mr. Long of those interviews, you reviewed them and approved  
7 that report?

8 A. No. To my knowledge, all interviews were just  
9 made available upon transcription. I played no role.

10 Q. Did you at any time give Mr. Long instructions  
11 that you wished to review and approve any interview or report  
12 on interviews that went out?

13 A. I take it that you are referring to an exhibit  
14 that you entered during the deposition and --

15 Q. Mr. Dieckamp, why don't you answer my question.

16 A. I don't know whether that document speaks of  
17 reports.

18 Q. That wasn't my question. My question to you is:  
19 did you direct that you have the authority to review and approve  
20 any interviews or any reports of interviews which were released  
21 by GPU publicly?

22 JUDGE SMITH: Off the record.

23 (Discussion off the record.)

24 JUDGE SMITH: Back on the record.

25 Is there anything about our discussion you would like

1 to have on the record? Your plans for cross-examination this  
2 evening have taken too long. After the last document would  
3 have been the appropriate time to break. So you conclude for  
4 this evening forthwith, please. It is shortly after 6:00 now.

5 MS. BERNABEI: I would propose to move in the TMIA  
6 exhibits that have been identified up to this point.

7 JUDGE SMITH: I think the Board wants a chance to  
8 read them from beginning to end, and we will entertain your  
9 motion at a later time; perhaps first thing tomorrow.

10 Let's adjourn then until tomorrow.

11 (Witness temporarily excused.)

12 MS. BERNABEI: Will Dr. Zebroski be testifying tomorrow  
13 or Mr. Dieckamp?

14 JUDGE SMITH: That's the question I had myself.

15 MR. BLAKE: I don't know how long Ms. Bernabei intends  
16 or other parties do for Dr. Zebroski, but certainly it is  
17 my intention to start tomorrow with Dr. Zebroski even if it  
18 is out of order just because of his schedule.

19 I have checked with Mr. Dieckamp and he will be  
20 available later on tomorrow.

21 JUDGE SMITH: Let's go off the record.

22 (Discussion off the record.)

23 JUDGE SMITH: We will conclude with Mr. Dieckamp for  
24 today, and we will start with Dr. Zebroski tomorrow. We will  
adjourn now until 9:00 tomorrow morning.

25 (Whereupon, at 6:06 p.m., the hearing was adjourned, to  
be reconvened at 9:00 a.m., Friday, November 16, 1984, in  
Harrisburg, Pennsylvania.)

CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceedings before the  
UNITED STATES NUCLEAR REGULATORY COMMISSION in the matter of:

NAME OF PROCEEDING:

Metropolitan Edison Company  
(Three Mile Island Nuclear Station, Unit No. 1)

DOCKET NO.: 50-289SP  
(Restart Remand on Management)

PLACE: Room 156, Main Capitol Building, Harrisburg, Pennsylvania

DATE: Thursday, November 15, 1984

were held as herein appears, and that this is the original  
transcript thereof for the file of the United States Nuclear  
Regulatory Commission.

(Sigt) Sandra J. Milus  
(TYPED)

Sandra J. Milus  
Official Reporter

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