

# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

**Title:** PERIODIC BRIEFING BY TMI-2 ADVISORY PANEL

**Location:** ONE WHITE FLINT NORTH, ROCKVILLE, MARYLAND

**Date:** TUESDAY, OCTOBER 25, 1988

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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PERIODIC BRIEFING BY TMI-2 ADVISORY PANEL

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[PUBLIC MEETING]

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Nuclear Regulatory Commission  
One White Flint North  
Rockville, Maryland

TUESDAY, OCTOBER 25, 1988

The Commission met, pursuant to notice, at 11:00  
a.m., the Honorable LANDO W. ZECH, Chairman of the Commission,  
presiding.

COMMISSIONERS PRESENT:

- LANDO W. ZECH, Chairman of the Commission
- THOMAS M. ROBERTS, Member of the Commission
- KENNETH CARR, Member of the Commission
- KENNETH ROGERS, Member of the Commission
- JAMES R. CURTISS, Member of the Commission

1 NRC STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

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W. Parler A. Morris

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J. Luetzelschwab E. Marshall

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K. Miller F. Rice

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G. Robinson J. Roth

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T. Smithgall N. Wald

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CHAIRMAN ZECH: Good morning, ladies and gentlemen. Today, the Advisory Panel for the Decontamination of the Three Mile Island Unit 2 is going to present a briefing to the Commission on their recent activities and the current concerns and comments they have on the plans regarding TMI-2. This is an information briefing and no Commission action is planned at this meeting today.

I would like to take this opportunity to introduce and welcome our new Commissioner, Commissioner Jim Curtiss, to his first public meeting as a member of the Nuclear Regulatory Commission. Welcome aboard, Jim, happy to have you with us.

COMMISSIONER CURTISS: Thank you, it's good to be here.

CHAIRMAN ZECH: Since the Three Mile Island accident took place over nine years ago, the world has been following the progress of the defueling and cleanup of the plant. The Advisory Panel for the Decontamination of Three Mile Island Unit 2 provides an independent assessment of the activities at the plant to the Commission through these meetings and brings us the concerns and perspective of the communities in the vicinity of the plant.

The Commission has found these briefings to be informative and of value to us in our deliberations regarding TMI-2 and in considering related safety issues brought to the

1 Commission for decision.

2 We would also like to welcome the Advisory Panel to  
3 our new headquarters, this being the first time that they have  
4 briefed us in this environment. We've been here for a few  
5 months now and we're beginning to feel at home. We welcome you  
6 back to the Commission, and Chairman Morris, you may begin.

7 MR. MORRIS: Chairman Zech, let me just say on behalf  
8 of the panel that we very much appreciate your invitation to  
9 attend and would like to say good morning to the other  
10 Commission members as well and to say what a splendid meeting  
11 place you have here and it's a pleasure to be here to meet with  
12 you for the first time at this location.

13 We have met, particularly for the new Commissioner  
14 and others, we have met, as Mike Masnik, your staff person,  
15 told us before the meeting, some 60 times since we were  
16 assembled back I think it was in 1980. So we have been very  
17 busy during those years.

18 The panel members do wish to discuss two specific  
19 topics with you today. One is the post-defueling monitored  
20 storage concept or the PDMS concept or proposal, and the second  
21 would be the future work of the panel.

22 Regarding the PDMS, Tom Gerusky, one of our panel  
23 members who is with the Department of Environmental Resources  
24 in Harrisburg who could not be with us today, raised the issue  
25 of PDMS back in February of 1984. We had, at that time, in

1 December of 1986 I should say, an original presentation by GPU  
2 on that proposal. Then they gave us a re-briefing of that  
3 proposal back in January of this year, in 1988, for the second  
4 time we discussed with them and the public, and since that time  
5 we've had three other meetings with them. So in total, we've  
6 really met with them five different times in the public domain  
7 at our meetings to discuss the PDMS concept.

8 I hope that you did receive the letter that I sent, I  
9 believe dated September 13th, which was sent on behalf of the  
10 panel. And if I could for the record go through that, it's not  
11 a long letter and I'd like to go through at least parts of it.

12 CHAIRMAN ZECH: Certainly. We did receive it but you  
13 may certainly go through as much of it as you'd like.

14 MR. MORRIS: Okay, thank you. Beginning in paragraph  
15 2 I will read it, "The majority of the time in our meetings of  
16 May 26th, July 14th and September 7th was spent discussing the  
17 draft supplement No. 3 of the Programmatic Environmental Impact  
18 Statement dealing with the post-defueling monitored storage  
19 (PDMS) and subsequent cleanup. An initial presentation was  
20 made on the document by the staff of the NRC with subsequent  
21 comment and observations by the NRC, GPU, the general public  
22 and panel members.

23 "At the conclusion of the public portion of the  
24 discussion at our last meeting..." -- and again, that was on  
25 September 7th -- "...the panel decided that we should take a

1 position on the PDMS. Prior to my outlining that position, I  
2 do wish on behalf of the panel to make several observations to  
3 you as follows:

4 "One, while there clearly is a reduction in worker  
5 exposure in cleanup following the PDMS plan, the amount of  
6 reduction was not as significant as we had anticipated. Two,  
7 there is no specific funding plan in place, and consequently no  
8 guarantee that monies will be in place for cleanup following  
9 PDMS. Three, after listening to the discussion, it became  
10 clear that the 20-year period for PDMS was not definite, and in  
11 fact after a 20-year period the PDMS could be coupled with  
12 decommissioning and continue in the same basic state for an  
13 additional 30 to 60 years. This uncertainty troubled the  
14 panel.

15 "By a vote of 8 to 2, the panel took the following  
16 position: At this time, the panel does not recognize any  
17 compelling reason to follow the PDMS. The advantage of reduced  
18 worker exposure was not convincing when considered against the  
19 uncertainty of funding and the uncertainty of the length of the  
20 PDMS. Therefore, the panel believes that cleanup should  
21 proceed expeditiously. The poorly-defined end points of  
22 cleanup cause the panel to feel a sense of frustration in  
23 dealing with the PEIS and the PDMS.

24 "I would like to point out that throughout our  
25 deliberations, members of the public were invited to comment.

1 All comments from the public were in opposition to the PDMS  
2 concept, and as such, I feel comfortable in saying that the  
3 above-stated position of the panel also reflects the sense of  
4 the public who attended our meetings."

5 At this point with that background on what happened  
6 at the last meeting, I would suggest, Mr. Chairman, if you  
7 would like to ask if there's any other panel members that would  
8 like to offer any comment on this issue, or whether you  
9 specifically have any questions of us prior to getting into the  
10 second item that I hope we can discuss this morning. Of the  
11 two items, PDMS being one and then the second item being what  
12 does this panel expect to do in the coming months or into next  
13 year, and we'd like to leave that maybe until last to discuss.

14 CHAIRMAN ZECH: Fine. I'll ask any of your other  
15 panel members if they have anything in addition to what  
16 Chairman Morris, we'd be pleased to hear from you at this time.

17 MR. MORRIS: Is there anybody that has specific  
18 comment?

19 MR. ROBINSON: Just one. I was one of those opposed  
20 to the motion. I wanted to point out --

21 CHAIRMAN ZECH: Could you perhaps move a little  
22 closer to the microphone and identify yourself for the  
23 reporter, if you would.

24 MR. ROBINSON: Gordon Robinson. I was opposed to  
25 this motion more because of the way it was worded than most of

1 the substance. I agree that there should be a more  
2 comprehensive plan to pay for the completed cleanup, and there  
3 should be a definite time, say 20 years or whatever the time  
4 that is realistic for completing the cleanup.

5 As far as no compelling reason, I somewhat disagree  
6 with that. I think there are reasons. I don't think they've  
7 been well articulated, and I think that more information should  
8 be provided in that area.

9 CHAIRMAN ZECH: Thank you very much. Any other panel  
10 members like to make any comments?

11 MS. MARSHALL: Yes. I'm Elizabeth Marshall, a member  
12 of the panel, and it occurred to me that precisely because the  
13 attention of the world has been focused on Three Mile Island,  
14 that it might be a very positive state to clean up as quickly  
15 as possible and restore it to the ultimate state which is  
16 anticipated 20, 40, 60 years from now. That this would be --  
17 if it sits there, that it would have a very negative impact on  
18 nuclear power generally, and that working with today's dollars,  
19 it might be more sensible to address the whole problem now.  
20 And I say particularly in view of the worldwide attention that  
21 this particular accident received.

22 CHAIRMAN ZECH: Thank you very much, Ms. Marshall.  
23 Yes?

24 MR. LUETZELSCHWAB: I wasn't at the meeting but I  
25 think I have to say that I have to add my vote to the eight who

1 were in favor of the motion. I voted previously to get the  
2 water off the island and I guess for that reason also, I want  
3 to get it cleaned up as quickly as possible. So I think they  
4 ought to just keep on going and get it done as soon as  
5 possible.

6 CHAIRMAN ZECH: Thank you very much. Any other  
7 comments?

8 DR. WALD: The problem that I think we as a panel  
9 faced was that we are being asked to accept an end point to  
10 this cleanup that was being proposed by the utility when we  
11 really don't have any sort of guide from your side of the  
12 question as to what an acceptable end point ought to be. And I  
13 think we all realize that there is going to have to be some  
14 period of PDMS; we just don't know at what point PDMS should  
15 start, and that's been our dilemma through the whole discussion  
16 of the situation.

17 CHAIRMAN ZECH: All right, thank you very much. Any  
18 other comments?

19 MR. SMITHGALL: Tom Smithgall. To comment on PDMS  
20 one comments directly and indirectly on all aspects of the  
21 cleanup process. By that I mean that I think the people that  
22 surround TMI need more rather than less assurances that Three  
23 Mile Island 2 will be cleaned up.

24 My comments follow the comments that were submitted  
25 after the comment period for the PEIS of the Commonwealth of

1 Pennsylvania. Basically, I think number one, the general  
2 public needs to know that the entire cleanup, including  
3 decommissioning, will have a defined and very specific end  
4 point. We've been dealing with this over nine years now and I  
5 think there is a need for that.

6 Secondly, the environmental impacts of any storage  
7 should be kept within the bounds of the PEIS, not only by  
8 required surveillance and monitoring by GPU Nuclear, but  
9 certainly by the NRC's active oversight that has been evident  
10 over the last years over your regulatory surveillance.

11 And thirdly, I think importantly for people in  
12 southcentral Pennsylvania that the financial assurances for  
13 cleanup and decommissioning become more specific and more  
14 defined. More than overall general guarantees are needed at  
15 this point in light of the fact that the plant generates no  
16 revenues for set-aside, that the actual cleanup goes well into  
17 the future, and that they will be dealing with two plants  
18 rather than one.

19 Therefore, as a member of our advisory panel, or your  
20 advisory panel I should say, I'm asking that you reject the  
21 PDMS proposal in favor of the expeditious cleanup, and I thank  
22 you for the opportunity to come to speak.

23 CHAIRMAN ZECH: Thank you very much. Are there other  
24 comments?

25 MR. RICE: I'm Fred Rice, former Dauphin County

1 Commissioner where Three Mile Island is located. I sense that  
2 the people in Dauphin County would like to get it cleaned up as  
3 quickly as possible. I opposed the motion, the resolution,  
4 because I felt that we just do not have the specifics for the  
5 funding set up. That's why I was the other negative vote.  
6 Thank you.

7 CHAIRMAN ZECH: Thank you very much, appreciate it.

8 The little microphones on the table here, just so  
9 you'll know, these are the microphones and they're really quite  
10 good. We're getting used to them, but you have to get a little  
11 closer than you were before. I think you're fine now. Please  
12 proceed.

13 DR. WALD: We're not used to this high tech  
14 environment.

15 [Laughter.]

16 CHAIRMAN ZECH: We're just getting used to it  
17 ourselves. We're still getting used to it. Please proceed.

18 DR. WALD: I don't want to reiterate many of the  
19 points which were already raised but I just wanted to state  
20 that a matter of chronic anxiety for the population is a health  
21 impact of the accident. We're fortunate there were no others.  
22 But anything we can do to have a firm timetable and firm and  
23 definitive action would be desirable to reduce public anxiety.  
24 And I voted for the motion because of that.

25 CHAIRMAN ZECH: Thank you very much, appreciate that.

1 Mr. Roth?

2 MR. ROTH: Thank you. I appreciate what my fellow  
3 panel members have said. I happened to be -- it's called the  
4 Roth Motion, I just had to say that, get that on my resume.

5 For the last almost 10 years or 9 nine years that the  
6 panel has been in existence, I guess I played the role of  
7 almost the citizen from the area and what they think and what  
8 the people feel, and it seems that this one, the utility seems  
9 to have looked at this PDMS as a given and sort of expected us  
10 to just go along with it; and hence the term "no compelling  
11 reason at this point" was at least shown to the panel. And I  
12 was glad to hear John say that would make it a 9 to 2 rather  
13 than 8 to 2 vote.

14 It just seems that it's so wide open, and the public  
15 is thoroughly concerned with well, is it going to be 20 years,  
16 40 years? The utility said it can be any period of time. And  
17 it just seems that there is such a loophole, a loophole  
18 probably large enough for a cooling tower to pass through, on  
19 this issue. It just seems to be so nebulous. What is it?  
20 What does it mean? How can they get away with it? How can it,  
21 you know, just stop right now.

22 I appreciated the members of this panel who represent  
23 the scientific community, we depend on them a lot. And when  
24 the majority of them agreed with this motion, to me that was a  
25 compelling reason for our situation at this point to say it

1 just is not enough, we just can't leave it here, there has got  
2 to be a lot more delineation of this issue and not just accept,  
3 that is at this point.

4           There's very much concern -- I think it started on  
5 the economics of where the dollars are coming from. I don't  
6 think I as one person and perhaps others here are ready to  
7 accept the utility's promise that they will have the money. In  
8 other words, that "trust us" mode I don't believe is enough for  
9 the panel and also for the citizens of the area. And I thank  
10 you.

11           CHAIRMAN ZECH: Thank you very much, appreciate those  
12 comments also. Are there any other comments?

13           MR. MORRIS: If I could just add just a couple. One  
14 is that when we talk about funding, we are aware, Mr. Chairman,  
15 and I would like to say that if you've had a chance, I realize  
16 our minutes are pretty lengthy and you may not have had a  
17 chance to see them all, but in there if you would have a chance  
18 to read them you'd see that we are aware of the fact that I  
19 think it's by July of 1990 or something like that, there's a  
20 requirement for plants to submit to the NRC some kind of  
21 funding plan for decommissioning. We understand that, but  
22 that's two years away. We have no knowledge of what that plan  
23 really will entail, how specific shall it be.

24           So we're in a position now of not knowing what  
25 they're going to submit, not knowing what the funding plan will

1 be, how specific will it be, and trying to act on a PDMS plan  
2 with that concern.

3 And then secondly, the longevity of the PDMS process  
4 possibly being longer than 20 years, maybe even 50 or 90 or  
5 whatever if coupled with decommissioning. So that uncertainty.

6 And then the third one I think that Ken Miller  
7 mentioned, and I know I'm repeating some of the things here but  
8 I think it's important to make the point that we have discussed  
9 the July 9, 1990 submission, when is the end point of cleanup  
10 really the end point is a good question. We did wrestle with  
11 that. When what is known as the cleanup finishing now, there  
12 will still be radioactivity in the piping, in equipment that  
13 they say is harder to get at. We're not sure whether that -- I  
14 think the sense of the panel is that we're not sure that they  
15 can continue to at least remove the piping and equipment that  
16 has that radioactivity in it before they would then get to the  
17 point where they say, now we need to go into PDMS.

18 So again, the question of when is the end point  
19 really the end point -- I'm not sitting here as a member saying  
20 I never believed that that plant needs to have some monitored  
21 storage to it. The question is when does that point begin, and  
22 what funding will be available for the ultimate cleanup, and  
23 how long will the PDMS be allowed to continue, I think are  
24 three main unanswered questions at this particular point.

25 And I think because of that, you had the panel

1 members not unanimously but close to it supporting the  
2 position. And realize again that we spent five meetings on  
3 this, and our meetings generally start at 7:00 p.m. and go to  
4 10:00 at night, they're three-hour meetings. And while the  
5 first two may not have been totally devoted to this issue, the  
6 last three were. And we don't always stop at 10:00, there have  
7 been times in those meetings when we went on until 10:30, 11:00  
8 o'clock at night.

9           So we really got into the issue. We do not take our  
10 position on this lightly. So I just offer those last words at  
11 least on my behalf, and I don't know if anybody else has  
12 anything they want to add on this issue, or maybe the  
13 Commissioners have some questions you want to ask or some  
14 comments you want to make on it, too.

15           CHAIRMAN ZECH: Are there any other comments that any  
16 of the other panel members would like to make, the advisory  
17 panel?

18           [No response.]

19           CHAIRMAN ZECH: We thank you very much for those  
20 comments. Before we go to the next issue, perhaps I'll ask my  
21 fellow Commissioners if they have any questions or comments  
22 they'd like to make.

23           COMMISSIONER CARR: Yes. It seems to me that the  
24 consensus is that you're not against PDMS per se, but the  
25 indefiniteness of when they'll go into it. In other words,

1 what right point to shift to PDMS, how long it will be, and the  
2 assurance that the money will be there to finally do whatever  
3 is decided to be done with the site -- whether it gets to  
4 unrestricted use or whatever. Is that an accurate summary?

5 MR. MORRIS: I personally feel that while we might  
6 not have unanimous comment on that, I would think that would be  
7 the consensus of the panel, yes.

8 COMMISSIONER CARR: So it was the indefiniteness of  
9 the plan rather than the idea itself that got you uneasy.

10 MR. MORRIS: I speak as Chairman and I think there  
11 are other panel members who voted the same way that would say  
12 yes, that's true.

13 COMMISSIONER CARR: Thank you.

14 CHAIRMAN ZECH: Commissioner Rogers?

15 COMMISSIONER ROGERS: Well, that was really my  
16 question. I think that's the issue that is so central here;  
17 whether the panel feels that with further work and further  
18 definition and further elucidation of remedies for your  
19 concerns, whether PDMS would then be a reasonable approach.

20 MR. MORRIS: I think the answer to that would be yes  
21 but that GPU has a lot of work to do. Again, as a panel member  
22 and as Chairman, they have a lot of work. There's a lot of  
23 things they need to do to answer those questions in a  
24 definitive way. And I wouldn't want anybody to feel that that  
25 is an easy thing for them to do; they've got work to do and

1 they've got some commitments I think they need to make in order  
2 to at least have the panel feel comfortable in supporting such  
3 a concept. But I think in the end, it's only practical to  
4 assume that PDMS -- there has to be a place for PDMS at some  
5 point under certain circumstances.

6 DR. WALD: One amplification. We did discuss very  
7 thoroughly the addition of the opening words of the panel's  
8 position, "At this time..." and it was the consensus after some  
9 disagreement that that really reflects our feeling. At this  
10 time.

11 CHAIRMAN ZECH: That's an important thought,  
12 appreciate that. Commissioner Curtiss, any comments?

13 COMMISSIONER CURTISS: No, thank you.

14 CHAIRMAN ZECH: Well, I think my colleagues have  
15 summed up essentially your views; I think we understand them.  
16 Defining the end point, when is it; how long the PDMS should  
17 continue; the financial assurances. I think the regulatory  
18 oversight point was also one that I would say was an important  
19 point to be brought up, too, and we certainly intend to  
20 continue our responsibilities in that area.

21 But I think you have made your position clear. I  
22 appreciate very much your thoughts in that regard, and  
23 certainly they will be carefully considered.

24 COMMISSIONER CARR: Just one more question. During  
25 your deliberations did you look at the question of when it

1 becomes too expensive to clean up?

2 MR. MORRIS: When it becomes too expensive to clean  
3 what up? First of all, let me say --

4 COMMISSIONER CARR: How will the panel decide when  
5 you're on what slope of the curve beyond which it's probably  
6 reasonable not to go any further?

7 MR. MORRIS: Well, I personally feel that is  
8 obviously the question -- the answer that we're seeking when we  
9 talk about when do we go into PDMS.

10 COMMISSIONER CARR: And I'm looking for criteria.

11 MR. MORRIS: I think at this point what we're saying  
12 is based on what we've heard, we don't feel comfortable in  
13 supporting PDMS. We are looking to those individuals,  
14 particularly the operator, GPU, and the NRC -- and I speak,  
15 again, as one -- to provide the parameters for us to review.  
16 And we're saying we're open for that kind of discussion, but  
17 there's been very little as far as I'm concerned information  
18 offered to resolve that particular issue. And I'm not sitting  
19 here saying I'm an expert on this and saying that I know those  
20 answers, but I am saying that I am open to supporting PDMS.  
21 But --

22 COMMISSIONER CARR: I guess my question then should  
23 be, are you open to an argument that at some point it's too  
24 expensive to continue the cleanup?

25 MR. MORRIS: Well certainly. I mean, if you didn't

1 consider that you would say we should go forever and a day and  
2 we should get every single bit of radioactivity out of that  
3 plan; then you can mothball it. That's not what is being said  
4 here. Obviously you've got to look at the finances and the  
5 benefit, and those come together at some point.

6 COMMISSIONER CARR: Well, I was reading your position  
7 as really we should go ahead and do the final -- whatever the  
8 final cleanup is -- do it now and if that happens to be  
9 unrestricted use, we should proceed in all haste and clean it  
10 up.

11 MR. MORRIS: Well, that -- in the end if they come  
12 along and say we can do that for \$3.50, we'll say sure, we want  
13 to go right until the end. Now clearly, that's not going to be  
14 the answer, but we don't know those dollars and cents. We've  
15 heard the numbers given by the staff of the NRC in the PEIS of  
16 \$240 million or so if you would continue to remove all the  
17 piping and what have you, or up to \$300 million; and we've  
18 heard the GPU say well, they're not sure that those numbers are  
19 accurate. We've heard those kind of things.

20 But again, the specifics of it, the commitments that  
21 that money is going to be there -- that's a key point. At some  
22 point they're going to have to decommission the plan, and if  
23 they leave PDMS run into decommissioning, we feel we need to be  
24 assured that that money is going to be there. So you can't  
25 just take the one question out because then you still say all

1 right, when they do have to spend money is it going to be  
2 there. And how long down the line will that be?

3 So we've raised three issues here and I think yours  
4 really speaks to when is the cleanup finished and PDMS begins.  
5 And it goes to money and degree of removal. And most of the  
6 panel members that I've spoken with individually agree with the  
7 PDMS concept; it's the beginning point, your question. And if  
8 you would read our --

9 COMMISSIONER CARR: Well, Ms. Marshall particularly  
10 said she would like to restart so people would look at Three  
11 Mile Island and see it as never had a problem. I assume. Is  
12 that what -- ?

13 MS. MARSHALL: Well, I think that's the ultimate  
14 goal, but it seems to be projected for the future, the  
15 uncertain future. In the meantime it sits there and I think  
16 has a very negative impact on nuclear power throughout the  
17 country. If it is conceived that that is a continuing source  
18 of power for our country, then it seems to me we've got to  
19 clean as we go and not leave it to the next generation.

20 MR. MORRIS: And I would just like to add on to what  
21 Elizabeth is saying, and I know that Joel has some comments he  
22 want to offer, too. But if you have a chance, and I don't know  
23 if you've had a chance to go through our last three meeting  
24 minutes, but if you have a chance to do that the reading is  
25 pretty quick and it doesn't take that long, but I think you

1 would get a sense for the information that we were provided and  
2 the lack of specificity in many cases that led to the  
3 uncertainty and the frustration of the panel in making this  
4 determination. And I think when you go through that you'll see  
5 that there is not a lot of meat to the proposal of the variety  
6 that we're looking for and need to make a determination.

7 CHAIRMAN ZECH: Thank you. Yes, Mr. Rice.

8 MR. RICE: It appears to me that the panel is very  
9 cost conscious from that standpoint and we haven't been able to  
10 get any answer. The people that appeared before the panel,  
11 however, they don't care how much it costs; they want it  
12 cleaned up.

13 COMMISSIONER CARR: Sure.

14 CHAIRMAN ZECH: Any other comments?

15 MR. ROTH: Yes, basically to Commissioner Carr's  
16 statement. I think that if one reads the minutes of that  
17 meeting where the motion was made, I think the principle that I  
18 was going under just as one individual was the fact that it  
19 wasn't up to us as a panel to make a determination of numbers,  
20 but rather to see what the presenters, the utility, was doing.  
21 And I just felt as an individual that it was almost non-  
22 existent, it was almost a fait accompli that they were looking  
23 at on their part and we weren't buying it.

24 COMMISSIONER CARR: They didn't make their case as  
25 far as you were concerned.

1 MR. ROTH: Didn't make their case at all. Yes, sir.

2 CHAIRMAN ZECH: Commissioner Rogers has a comment.

3 COMMISSIONER ROGERS: Just, how much credibility or  
4 how much weight perhaps is the better way to put it would you  
5 place on the notion that by waiting a longer period of time  
6 before the ultimate cleanup, that there is less personnel  
7 exposure of those individuals that have to perform the cleanup.

8 And there is an ALARA concept involved here to some extent  
9 that as little radiation exposure as possible ensues from the  
10 total process.

11 MR. MORRIS: As a lay person -- and I would hope that  
12 maybe Ken Miller and some others would speak to this, but I  
13 must say that when those numbers were presented to us -- and  
14 they put it in the number of exposures as far as how many  
15 people might die from cancer as a result of continuing to clean  
16 up now versus waiting. And the two-tenths of a life or  
17 whatever isn't important, but the number -- and it's something  
18 like that, two-tenths or three-tenths -- was not nearly as  
19 convincing as what one person expected it would be. I thought  
20 there would be significant savings in risk to life as a result  
21 of waiting. And while there is a number and there is a  
22 difference, it was not very convincing.

23 And there has to be -- I think if that's the best  
24 that can be done in that, there has to be something else built  
25 on top of that to make the argument convincing to go with PDMS.

1 One may be finances, certainly. One may be just common sense  
2 that you can only get to a certain point. But exposure to  
3 workers alone from one person was not the compelling reason to  
4 go into PDMS.

5 COMMISSIONER ROGERS: Well, is the panel also able to  
6 deal with the possibility that there will be no compelling  
7 reason to go one way or the other; that a choice has to be  
8 made, a decision has to be made that is not based on an  
9 obvious, compelling reason but simply a collection of reasons  
10 that put together could lead to a decision one way or the  
11 other, either of which might be a reasonable decision?

12 MR. MORRIS: Mr. Commissioner, yes, I would say I am  
13 prepared to say that that may happen, and under those  
14 circumstances I know the Commission would say let's proceed,  
15 because under those circumstances the Commission has always  
16 said, at least staff has said, that cleanup must proceed  
17 expeditiously. That that has to be the goal.

18 And as one, I supported -- I don't want to  
19 necessarily get into the evaporation of water but I want to  
20 tell you that I supported the evaporation of water for that  
21 concept -- we need to proceed, we need to rid the island, if we  
22 can't use it as a storage area. That has been the position and  
23 unless something compelling comes along to change that, that  
24 has been the direction of the NRC, and I think it speaks a lot  
25 to what Elizabeth Marshall said before, that there are people

1 in the area that have great concerns about the plant. The  
2 world has looked at TMI and I still think there's a great deal  
3 of interest in it. And when everything else is even, the  
4 answer has to be we're going to clean that up. If there's no  
5 compelling reason not to, then we ought to proceed with it.

6 So that's the problem. I'm not saying they can't  
7 build a strong case but they've got to go back and they've got  
8 to sit down and say geese, we'd better do a better job on this.

9 CHAIRMAN ZECH: Thank you very much. Any other  
10 comments before we move to the next subject?

11 [No response.]

12 CHAIRMAN ZECH: You may proceed then, Chairman  
13 Morris.

14 MR. MORRIS: Okay. Simply put, we have as a panel  
15 deliberated on what we expected to be the major issues. We've  
16 basically completed them, and what we would expect to happen  
17 over the next year would be to follow certain activities. One  
18 would be the fuel removal, as it continues to remove the fuel  
19 from the reactor we would follow that issue. We would  
20 certainly follow the progress of this PDMS issue as the NRC  
21 takes it under advisement. We would follow the issue relating  
22 to the water, the ultimate disposition of the water. There are  
23 hearings scheduled to begin very soon on that.

24 So they would be the three issues we would follow.  
25 There's two other things we would obviously want to do. One

1 would be to receive public comment on any issue and at least  
2 give the public a forum. And lastly, we would want to offer  
3 any comments we feel appropriate in advising you, the NRC  
4 Commissioners. And really, that would be it in a nutshell. We  
5 do not have a specific major issue or milestone on our agenda  
6 at this point. Now one could develop, but at this point we  
7 don't have one.

8 CHAIRMAN ZECH: Thank you very much. Any of the  
9 other panel members care to comment in addition to Chairman  
10 Morris' views on that subject?

11 [No response.]

12 CHAIRMAN ZECH: Comments from my fellow  
13 Commissioners?

14 COMMISSIONER ROGERS: Well, just that this is my  
15 first opportunity to meet with you. I've been on the  
16 Commission for a year now and I think that it's most helpful to  
17 have your point of view and the thoughts that you've expressed,  
18 and I'm sure the enormous number of hours that have gone into  
19 your meetings, because I know how these things are. They are  
20 consuming, and I would just like to express my appreciation for  
21 everything you've done so far.

22 MR. MORRIS: Thank you. If I could suggest, and I  
23 realize we're getting close maybe to adjournment, but if I  
24 could ask the panel members, for the new members, maybe to give  
25 you a sense of who we are, to maybe introduce ourselves very

1 briefly.

2 CHAIRMAN ZECH: I think that would be very  
3 appropriate.

4 MR. MORRIS: Because we do have I think a very well-  
5 balanced panel. I think you need to know that. So maybe we  
6 could start with Ken Miller.

7 MR. MILLER: Ken Miller, Professor of Radiology and  
8 Director of Division of Health Physics at Pennsylvania State  
9 University.

10 MR. LUETZELSCHWAB: John Luetzelschwab, I teach  
11 physics at Dixon College and health physics is my area of  
12 interest.

13 DR. WALD: I'm Niel Wald, I'm professor and Chairman  
14 of the Department of Radiation Health at the University of  
15 Pittsburgh's Graduate School of Public Health. I'm also  
16 Professor of Radiology in the School of Medicine and a  
17 physician.

18 MS. MARSHALL: I'm Elizabeth Marshall, I served for  
19 four years as Mayor of the City of York and on its council for  
20 six years prior to that time, and I've been involved in a lot  
21 of community organizations in York. I am now a real estate  
22 agent in the City.

23 MR. SMITHGALL: Tom Smithgall, I'm from Lancaster,  
24 Pennsylvania; also a realtor, oddly enough, although I wasn't  
25 the mayor of Lancaster. I've been on the panel since 1981.

1           MR. MORRIS: Arthur Morris, Mayor of the City of  
2 Lancaster for eight and a half years, previously City Engineer  
3 and Director of Public Works. My background is in civil  
4 engineering, I'm a professional engineer registered in the  
5 Commonwealth of Pennsylvania.

6           MR. ROBINSON: I'm Gordon Robinson, Associate  
7 Professor, Nuclear Engineering at Penn State, and my major  
8 interest is reactor safety.

9           MR. ROTH: My name is Joel Roth, I've been on the  
10 panel since its inception and previous to that was Chairman of  
11 Three Mile Island Alert, which could be classified as a safe  
12 energy group, and I guess in terms of everything else you can  
13 classify me with that "L" word, Liberal. The big "L" word.

14           [Laughter.]

15           MR. RICE: I'm Fred Rice, I'm a retired county  
16 commissioner of Dauphin County and I'm now a sales executive in  
17 brokerage. Nice to be on this panel.

18           CHAIRMAN ZECH: Thank you very much. Well, thank you  
19 for that suggestion, Chairman Morris. I think that was helpful  
20 to our newer commissioners and I appreciate that recognition of  
21 your panel. And certainly you do have a distinguished panel  
22 and we're most appreciative of that.

23           Let me just say first of all that I think the  
24 advisory panel has and continues to provide a very important  
25 service to the Commission. I've said that before and I'll say

1 it again, and I think it's very important that you recognize  
2 that we do feel that you are providing us a service and we're  
3 grateful to you for that.

4 I would certainly agree with your thoughts on the  
5 issues that you raised, Mayor Morris, especially the four that  
6 you articulated that the panel is involved in; the fuel  
7 removal, the PDMS issue, the water issue and other advice that  
8 you may provide to the NRC. So I know I speak for myself and  
9 I'm relatively certain I speak for all my colleagues that we  
10 are not anxious to have the panel disestablished; we think that  
11 your service is important to us, and we look forward to your  
12 continued service. And certainly, these issues that you've  
13 mentioned and I've just mentioned are ones that we know are not  
14 going to be resolved any time very soon, and so we would hope  
15 that the panel would continue the public service that you're  
16 providing to not only this agency but to your fellow citizens  
17 of your area and to our country.

18 I think that what you've said to us this morning is  
19 very important. We hope that you would keep us apprised of any  
20 other activities or any other concerns you might have that we  
21 haven't talked about here today. I'm informed that our staff  
22 is aware of your comments and your concerns regarding the PDMS  
23 issue in particular and are addressing them in their  
24 preparation of the final Environmental Impact Statement on  
25 PDMS.

1           The Environmental Impact Statement documents -- the  
2           purpose of course is to document the staff's analysis of this  
3           whole situation and look at all the alternatives. It will be  
4           used eventually to evaluate the application that GPU has made  
5           to terminate the cleanup activities. I think that the points  
6           you've raised on end point and the point you've raised on the  
7           specifics, the parameters, how long the PDMS should continue,  
8           are very important issues that should be carefully considered.  
9           I would ask that the staff do so very carefully and bring the  
10          thoughts of your advisory panel to the attention of all those  
11          who will be analyzing what positions we will be taking,  
12          specifically regarding the PDMS issue.

13                 And I think that needless to say, decisions will be  
14          made and I can only assure you that your concerns will be  
15          carefully considered and with great respect for the public  
16          service that all of you are performing, again, to our agency  
17          and to our fellow citizens.

18                 Are there any other comments of my fellow  
19          Commissioners? Mayor Morris, do you have any final comments  
20          you'd like to make?

21                 MR. MORRIS: No, I don't. I just appreciate the  
22          opportunity and would very much appreciate your consideration  
23          that you are indicating today. We do deliberate long and hard  
24          and know that you will weigh our concerns very seriously.

25                 CHAIRMAN ZECH: We appreciate that, and again, we

1 thank you for your service. We stand adjourned, thank you very  
2 much.

3 [Whereupon, at 11:47 a.m., the Commission meeting was  
4 adjourned.]

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**CERTIFICATE OF TRANSCRIBER**

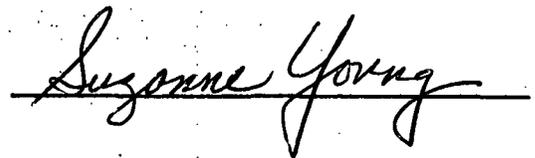
This is to certify that the attached events of a meeting of the U.S. Nuclear Regulatory Commission entitled:

**TITLE OF MEETING:** PERIODIC BRIEFING BY TMI-2 ADVISORY PANEL

**PLACE OF MEETING:** Washington, D.C.

**DATE OF MEETING:** TUESDAY, OCTOBER 25, 1988

were transcribed by me. I further certify that said transcription is accurate and complete, to the best of my ability, and that the transcript is a true and accurate record of the foregoing events.

A handwritten signature in cursive script, reading "Suzanne Young", is written over a horizontal line.

**Ann Riley & Associates, Ltd.**

10/19/88

SCHEDULING NOTES

TITLE: PERIODIC BRIFFING BY TMI-2 ADVISORY PANEL

SCHEDULED: 11:00 A.M., TUESDAY, OCTOBER 25, 1988 (OPEN)

DURATION: APPROX 1 HR

PARTICIPANTS: TMI-2 ADVISORY PANEL\* 60 MINS

- ARTHUR E. MORRIS, CHAIRMAN
- THOMAS GERUSKY
- DR. JOHN W. LUETZELSCHWAB
- ELIZABETH N. MARSHALL
- KENNETH L. MILLER
- FREDRICK S. RICE
- DR. GORDON E. ROBINSON
- JOEL ROTH
- THOMAS D. SMITHGALL
- ANN D. TRUNK
- NIEL WALD, M.D.

AGENDA TOPICS: - FUTURE ACTIVITIES  
- POST-DEFUELING MONITORING STORAGE (PDMS)