

THE PRESIDENT'S COMMISSION  
ON THE ACCIDENT AT THREE MILE ISLAND

PRESS CONFERENCE

Thursday, May 31, 1979

JOHN G. KEMENY  
(President of Dartmouth College)  
CHAIRMAN OF THE COMMISSION

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May 31, 1979

PRESS CONFERENCE

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QUESTION: (Inaudible)

CHAIRMAN KEMENY: Well, let's see. I haven't tried to summarize it that way, but let me think out loud, okay?

First of all, we have heard again and again that the operators were faced with a situation that none of their training prepared them for. I think there seems to be overwhelming evidence, wouldn't you agree?

MR. LUNDIN: Yes.

CHAIRMAN KEMENY: And you know, it is easy to say that something was operator error, and we could identify operator error in the sense that if the operators had done something different, this Commission would not exist today.

On the other hand, if none of their training ever prepared them for it, if the operators did precisely what they were trained to do under certain circumstances, it may be a little unfair to call that operator error.

Secondly, that there is an overwhelming concern about that pressurizer. This is closely connected to what I said before. And you may have noticed a number of Commissioners probing on this. It is easy for us to come in months later knowing what happened and say that everybody should have worried about the core. Was the core covered? And somehow they are worrying continually about what's happening to that pressurizer, worrying about the pipe rupturing due to that vibration in it, and that sort of thing.

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It looks to us -- I should speak for myself -- it looks to me as if they were worrying about matters of second order importance, and the first order of importance should be the coverage of the core.

On the other hand, this brings me to my third most important point. Again, all their training says that if the level in the pressurizer is high enough, that means that the core is covered. Isn't that right, Bruce?

MR. LUNDIN: That's exactly right.

CHAIRMAN KEMENY: So therefore, they are not worrying about it because they are misreading in a situation that they have never been before, the level of the pressurizer is somehow indicating to them that the core is covered.

Let me make clear. I have had to do an awful lot of learning. When I was first appointed to this Commission, most of what I am now saying would have meant nothing to me. So let me explain the problem here.

If there had really been liquid flowing there, then all of that indication would have been perfectly reasonable. However, they crossed over into a region where the liquid turned to steam, which meant probably all through that system, in the primary system, there are steam bubbles which are pushing the water up -- did I get that right, Bruce? You are one of my teachers.

MR. LUNDIN: That's right.

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CHAIRMAN KEMENY: Pushing the water up into the pressurizer level, and therefore you get the completely misleading reading.

You may have noticed that's why several of us probed on whether they ever realized that there is a combination of pressure and temperature that would allow steam to be created.

The normal situation is that we all know that water boils at what? 212° Fahrenheit, except that is only true at ordinary atmospheric pressure.

I had to ask at one of our staff briefings -- I forgot my physics -- it turns out to be a quite complicated formula for each level of pressure. The higher the pressure, the higher the temperature can be without it boiling. This is the famous pressure tables that are being asked for.

And therefore, unless you have those in hand, or you are a heck of a good mental calculator, or have a fabulous memory, you don't know whether you have crossed over the danger line. And this is why I, you may remember, asked wouldn't it have been nice to have a little computer there that put together the pressure and the temperature, and the big red light comes on saying, "You have now crossed that threshold," rather than somebody having to run out and open up pressure tables and start looking through it, are we there? Which nobody did. I don't know if you can blame them for it.

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They were really dealing with an emergency.

QUESTION: Has it occurred to somebody at the NRC -- --- that a plant of this importance and this potential nature should have been labeled -- indicating -- equipment -- what was really going on ?

CHAIRMAN KEMENY: I have to remind you we have not yet had the chance to ask the NRC questions. We will get that opportunity this afternoon and tomorrow, and I wouldn't be at all surprised if somebody would ask the e of question.

QUESTION: It is quite clear now, probably even to members of the NRC, that their training program might be considerably improved. Are you operating on the assumption that given the number of --- errors that can occur, even mechanical, that there is any way that that training program could ever prepare the -- plant operators for every eventuality?

CHAIRMAN KEMENY: I would think , let's see, let me try and then I will ask Mr. Lundin also to help me.

I would say I don't believe in any complex human enterprise you can ever be 100 percent certain that you take care of every possible thing that happens. And I think if we lived life insisting on 100 percent guarantee that nothing bad should happen, the only way I know to achieve that is to commit suicide.

I mean, I am being very serious here. I am not being facetious. The moment you step out of that --

QUESTION: (Inaudible) -- -- and there seems to be an assumption that there is an acceptable degree of -- and that is what I am asking you to define.

CHAIRMAN KEMENY: That is clearly something the Commission will have to deal with when it comes to having findings and having its recommendations.

I am just saying there is no source of energy where the level of risk is zero. Okay? That's what I meant.

Bruce, you were going to say something about the training.

MR. LUNDIN: No, I was just going to point out that it's a matter of training, but also other things closely connected with it. We have to look at the quality of the training, the fidelity and completeness of the control room displays and automation, and I think also quite particularly with automated interlocks and safety devices that use technology and automated aid. and all of this has to come together to be able to arrive at the decision is the level of risk an acceptable one or not? It will take many, many things coming together.

CHAIRMAN KEMENY: Let me make one more comment on acceptable risk. I think our instrumentation at the computing center at Dartmouth College is better than in that control room. And yet the risks -- what's acceptable risk? We can operate at a much higher acceptable risk in a computing center

because if the computer goes down, it is a major nuisance for all of us and people don't get their work done and some work gets delayed.

Clearly, what you decide is acceptable risk you have to -- what the acceptable probability of risk is, you have to decide how great the risk is and how great the cost is, and surely that's much greater in a nuclear power plant than in a computing center.

QUESTION: Is there any reason why they couldn't have had direct measurement of the temperature -- -- --(Inaudible)

CHAIRMAN KEMENY: No. I think the operators were very frank in coming out with things they now wish they would have had, so I think certainly one learns a great deal of instrumentation that one wished that one would have had there and didn't have.

QUESTION: You spoke yesterday of the obsolete character of their computers, and there was some discussion about the layout design here, and it struck me that I have never heard of any sort of visual display where red denotes the normal state of affairs. Can you just discuss this whole situation and what should be done about it?

CHAIRMAN KEMENY: Yes. It is worse than that. We couldn't help, as we were riding back on the bus after our tour, I remember some of the Commissioners talked on that. We couldn't help it.

It's not -- you are starting on -- first of all, red means open and green means closed. That in itself is unusual. Nevertheless, I would think if you've got years' experience in something, you can get used to any convention. What is worse here is the fact that neither one of them in itself indicates normal. Under normal operating conditions you want to have certain things open and you want other things closed. So therefore, the normal status here -- I don't know what the percentage is. Let me say 50 - 50, but I don't that number.

But let's say under normal conditions you've got half your lights green and half your lights red. And therefore, without going around and checking each one of them, or remembering from memory which is supposed to be green and which is red, there is no quick way of seeing that something is in the not normal position.

It looks to me like very bad human engineering.

QUESTION: Have you talked to the Nuclear Regulatory Commission about their standards for control room displays and computer capability to assess what is going on?

CHAIRMAN KEMENY: I think you ought to wait until we ask the Nuclear Regulatory Commission. I don't think I want to say in advance all the things we want to ask them, but yes, I promise to take your question.

QUESTION: I wanted to ask you if you or the other

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Commissioners had noticed any significant discrepancy in testimony among personnel from Metropolitan Edison, GPU, who are testifying thus far?

CHAIRMAN KEMENY: I, of course, haven't had the chance to sit down and reread all the testimony, but no, I haven't found -- myself, I did not notice any very significant discrepancies, did you?

I think they are telling what seems a consistent story including the fact that they very readily admit the actions that in retrospect we know were mistaken actions.

I mean, I find that sort of convincing. The one mystery, of course, we have turned up are those two famous valves. I mean, that is not discrepancy. It is -- we have sworn testimony as of little less than two days before of an operator who personally opened those. And we have sworn testimony from an operator just eight minutes into the accident that those valves were closed, and at the moment we haven't got any clue as to how in between those got closed.

QUESTION: -- (Inaudible) -- not a discrepancy, but it was very close to that, I think, that it is something that the press has reported on and was pretty flatly denied by GPU. That's their assertion that a privately owned power utility which is publicly regulated, that in the event it has state tax money or has some other factor that we in the press figured allowed an increase in profit, that no, it

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no, it didn't get an increase in profit, and it was just a matter as to what the power rates were going to be.

CHAIRMAN KEMENY: Let's see. As I heard, I think it was Mr. Dieckamp's statement, and I am not a financial expert in this, but as I heard him, he tried to separate out two very large numbers, and on one of them he said that that is passed on in savings to the customers. I think:

I thought he readily admitted that the other one, I think the \$49 million, rather than the \$40 million one, certainly did result in additional profit. That was my understanding of his answer.

QUESTION: Did you believe Herbein when he said that he didn't know for a couple of days or a couple of weeks about large fuel damage, when his immediate subordinates had told you the last two days they knew right away that it wouldn't work more than one percent? -- -- discrepancy in that.

CHAIRMAN KEMENY: Well, let's say, we heard him testify that under oath, and I have to believe him until we get evidence to the contrary in which case -- I am not pointing at him now. If any witness, of course, should turn out in retrospect to have given false evidence under oath, presumably it is a perjury case, isn't it, Chief Counsel?

MR. LUNDIN: Should the Commission be satisfied that that has happened, we will refer it to the Department of Justice.



QUESTION: Is that plausible to either of you that he would be the only one -- -- -- (inaudible) fuel damage?

CHAIRMAN KEMENY: I don't want to speculate on plausibility. I mean, if it is not true, remember it is a serious crime and perjury, so certainly it would not be appropriate to speculate.

I do want to point out that one thing that has already come out on a large level, that the degree of confusion and lack of communication was enormous.

QUESTION: Are you satisfied that the company has told us or mentioned everything that they may not know about what happened to those -- feedwater valves, and if it happened, is there anything that you think the Commission can do to shed more light on that issue?

CHAIRMAN KEMENY: Well, it's clearly one of the mysteries we have to work on, and I don't at the moment, myself, have a good idea how to attack it, but clearly we will be going to executive session tomorrow afternoon. One of the questions will be are there further things that the staff should do, or further witnesses we should attempt to call who could clarify that mystery. That looms quite an important mystery in opinion.

Yes, sir?

QUESTION: -- -- three or four weeks ago on two separate occasions, I talked to workers at the plant who

told me that the auxiliary feedwater valves were not closed, that it was the emergency -- -- valves. Did that ever come up in any of your staff investigations?

MR. LUNDIN: Not yet, no.

CHAIRMAN KEMENY: Are you saying that those two famous valves on the auxiliary feedwater were not closed?

QUESTION: Two workers told me on separate occasions that it was their understanding that it was the emergency -- cooling system valves.

CHAIRMAN KEMENY: That's very hard to believe on the evidence we have. I mean, after all, the emergency cooling system did come on and did pour in water. The problem is for reasons we now know, the operator throttled back on it and turned one of them off. But the other one didn't come on so --

QUESTION: Yesterday you told us that 10 days ago you went into the plant and that is six or seven weeks after the accident and there were still lights that were not working.

CHAIRMAN KEMENY: Yes.

QUESTION: We also heard testimony that they have found valves that were positioned wrong and so forth. Does this say anything to you about the manner in which this plant is operated --

CHAIRMAN KEMENY: Let me comment on the first one because it comes closer to things I do know about.

It seems to me if you depend on the system where they have hundreds of lightbulbs that are supposed to be signal bulbs, I don't know what kind of lightbulbs they use, but I have much in my house, and a number of them burn out regularly. I would hate to have a very important signal depend on one of the lightbulbs in my house not burning out.

On the other hand, we are told -- at least I have heard -- that this is not atypical. I mean, you are talking here about technology that, as I said, is about 20 years out of date here, and the answer to that was that it takes ten years from the time you plan something, til it is approved and you get it built, and of course, that really was TMI-I, and TMI-II gets built several years later, and the control room is roughly the same.

So right there you can see a decade and a half delay between the time the first planning was made and this was implemented, which leaves us some serious question, you know, of whether it ought to be that way.

On the other valves, I don't have enough experience with them that I would -- I don't know in chemical plants or anything else. I mean, let me ask you, you have NASA experience, Bruce, are there ever valves that you can guarantee they will never go on the blink?

MR. LUNDIN: Oh no. We have valves go in the

wrong position -- we did in the space program occasionally. But I do agree that in the view of many of us there are many improvements and changes that can be made utility plant control rooms, and I believe all of the witnesses we have had before us have agreed with that conclusion.

CHAIRMAN KEMENY: Isn't it true -- could I just -- I'd like to ask Bruce something here to bring out something from him.

Isn't it true that in NASA the way that is handled, at least in philosophy, if not always succeeding, is to have enough redundant paths so that you don't depend on one single valve wherever possible?

MR. LUNDIN: Well, that's right, but I point out that there is considerable redundancy built into even TMI plants.

I might just quickly point out that to say well, to have green for open and red for shut is wrong, and it should be green for right and red for wrong, what is right and wrong rather than open and shut.

But that's a highly simplistic answer because what is right and what is wrong for all these many valve positions depends upon the point of operating the plant, that there is a power level and what is happening, what is going on. So to produce the system where the lights displays our right and wrong, rather than on and off, takes a

computerized program in order to accomplish that.

QUESTION: This is a follow up to that earlier question, and it goes to whether or not it might be a good idea to have an across-the-board investigation of the operation of all nuclear power plants if, as Mr. Dieckamp said yesterday, his company is judged to be about average in engineering capability and so forth. If he is at the 50th percentile, what does it tell us about the other 65 plants that are licensed?

CHAIRMAN KEMENY: That is a legitimate question. Let me point out that that's not within the charge of this particular Commission, but our charge, I think, is interesting in the following way. We are learning an awful lot about nuclear power plants by examining this one single plant.

Certainly in our recommendations, our recommendations will be in general, but for example, suppose we determine that the control room ought to have more modern equipment in it. I just use that as an example. If that is the case, it will not be up to this Commission to determine that the other 70-odd power plants need the same thing, but whoever has the job of implementing our recommendations would have to have the task of seeing how many other power plants share the same problem, and that is applicable to any finding we have.

There was a gentleman back there who has tried --

QUESTION: -- (Inaudible)

CHAIRMAN KEMENY: What? I didn't hear just a bit.

QUESTION: (Inaudible)

MR. LUNDIN: There were short periods of time early on when high pressure injection was terminated by the operators, as they were attempting to control the level in the pressurizer.

QUESTION: No, no. (Inaudible)

MR. LUNDIN: Unintentionally?

QUESTION: Or intentionally.

MR. LUNDIN: Well, yes, the valves on the high pressure injection -- whenever you use high pressure injection, it's necessary to control the flow of that injection to prevent the pressurizer level from going too high and that's not an abnormal situation following a turbulent reactor trip.

QUESTION: (Inaudible)

MR. LUNDIN: Yes.

QUESTION: Is there any reason why we should not expect that the Commission would not expect them to repair -- -- (inaudible).

CHAIRMAN KEMENY: Yes. That's a very interesting example, and one the Commission will have -- I want to think about it more, and I am sure the Commission does. I think we got a very honest answer from our last witness on that. There is a very -- that's inside the reactor building, and the chances are you can't repair that without shutting down

the plant, and therefore you have a very large financial cost on it. So this is the kind of management dilemma you must have throughout the operation of anything like this. It's different from something you can easily get at at any time and repair it. At what point do you pay what may be a multi-million dollar price? I don't know if that's the right figure. Let's say a million dollar price and in loss of revenues in order to repair a valve.

And that is a very difficult question that I don't have a good answer to.

QUESTION: Do you know how long the valve was leaking? Has the Commission established how long it was going on? They just said for a long time?

MR. LUNDIN: Yes, I don't know exactly, but my impression from what we have learned so far is a considerable period of time.

CHAIRMAN KEMENY: Yes.

MR. LUNDIN: I would point out the leakage, we are told, is quite small, and was within technical specifications, and I think we must recognize that the fault here was maybe not primarily that the valve was leaking a very small amount and that that was known, but that there were not adequate indications of temperatures and pressures in the plant to indicate not that it was just leaking a small amount but that it was stuck open. I think that is the point of difficulty, sir.

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CHAIRMAN KEMENY: Yes. That leakage only contributes by adding to the confusion because if you look at the record, and look, this is Monday morning quarterbacking, so please don't misunderstand me. If you look at all the data that was available during that early period, I think I would have no doubt at all that they should have recognized that that pressure valve was open.

On the other hand, there is confusion. They were confronted with a situation they had never seen. Some of the data we are now looking at is on the side of that where you can't go without sending -- --- over there to look at it, and it is awfully easy to look at all the data a month later and say they should have put this, this, and this together.

That's where the leak contributes that because of the leak, they have an alternate explanation for what should have been a clear signal for that valve being open.

Yes?

QUESTION: (Inaudible)

CHAIRMAN KEMENY: I think Chief Counsel should answer that.

MR. NATALIE: Every document, every subpoena that the Commission has issued has been complied with. And if subpoenas that are issued aren't complied with, I'm sure you will be the first to know about it because we will have to go to court to enforce them.

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QUESTION: -- --- (Inaudible) -- My question is if there is a member of the press represented on the Commission, but are you be calling representatives from the press at all or --

CHAIRMAN KEMENY: We have not made that determination yet, but let me tell you what it seems to me we clearly have to do. To answer that part of a charge, it seems to me three things have to be put together.

One, what actually happened? I mean, what was the truth?

Secondly, what did the spokesman who briefed the press or the public say was the truth?

And thirdly, what did the press actually print? I mean, there are two different places, I mean in their chain, as you are going from step to step where things could break down. One is whether what was given out to the press and the public really corresponded to the facts, and if not, why not; or whether what the press printed really corresponded to the briefing they got, and if not, why not.

So this is why we felt the first priority -- we have to be very sure what the truth was before we can prove those issues, but we are trying to prove those.

QUESTION: One last question.

CHAIRMAN KEMENY: Yes, the lady hasn't had a chance yet.

QUESTION: As you know, proponents of the nuclear power say that they would rather live next door to the nuclear plants that sit next door to a cigarette smoker.

CHAIRMAN KEMENY: Yes.

QUESTION: I'm noticing that you are a chain smoker. I wonder if there has been any complaint on the Commission or any thought on your part of cutting back or giving up or whatever?

CHAIRMAN KEMENY: No, as a matter of fact, Barbara suggests, I can't resist telling a story in a moment. Let me first answer your question and then I'll tell a story. Of course, I don't have the option of not sitting next to a heavy smoker. Wherever I seem to be there seems to be heavy smokers there. We have not had any complaint from the Commission. There are a number of other smokers there.

I have personally taken the position -- I do lecture to the students when I get opportunity at Dartmouth not to get addicted to nicotine the way my wife and I got addicted years ago. And sometimes I am a little sorry society seems to be less tolerant of nicotine addicts than heroin addicts it seems to me.

I very much hope that that kind of addiction will be eliminated from society, but those of us who are already hooked should be given some consideration.

But the story I can't resist telling was before

the Commission started, I paid courtesy calls on a number of  
with  
officials/ Commissioner McPherson, congressmen, members of  
the Executive Branch just to tell them we existed and who the  
members were and what we were going to be doing vaguely,  
because the Commission hadn't met yet.

Among the people I called on was Secretary Califano.  
We met for about an hour and a half, and as you know, he is  
very strict on this subject, and I had been warned about him.  
I actually went an hour and a half without having a cigarette.  
I am very proud of myself for that.

But the story I wanted to tell you was that in the  
end it was a very good meeting, and Secretary Califano wanted  
to assure me that HEW will help us in every way whatsoever,  
and he ended up using the -- in retrospect -- unfortunate  
phrase, "Look, anything you want from me, just tell me, and  
you can have it."

And I responded to that by saying, "Mr. Secretary,  
in that case, may I have a cigarette?"

The answer to which was, "Anything else you want  
you can have."

Thank you.

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THE PRESIDENT'S COMMISSION  
ON THE ACCIDENT AT THREE MILE ISLAND

SECOND MEETING

MORNING SESSION, 9:00 A.M.  
SATURDAY, MAY 19, 1979

at

Multi-Purpose Building, Capitol Campus  
Pennsylvania State University  
Middletown, Pennsylvania

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## PRESIDENT'S COMMISSION ON THE ACCIDENT AT THREE MILE ISLAND

COMMISSION MEMBERS PRESENT

JOHN G. KEMENY, Chairman  
President of Dartmouth College

BRUCE BABBITT  
Governor of Arizona

PATRICK E. HAGGERTY  
Retired President of Texas Instruments

CAROLYN LEWIS  
Associate Professor of Journalism  
Graduate School of Journalism, Columbia University

PAUL E. MARKS  
Vice President for Health Sciences  
Columbia University

CORA B. MARRETT  
Associate Professor of Sociology  
at the University of Wisconsin

HARRY McPHERSON  
Attorney

RUSSELL PETERSON  
President of Audubon Society

THEODORE TAYLOR  
Professor of Aerospace and Mechanical Science  
Princeton University

ANNE TRUNK  
Resident of Middletown, Pennsylvania

COMMISSION MEMBERS ABSENT

LLOYD McBRIDE  
President of United Steelworkers of America

THOMAS PIGFORD  
Professor and Chairman  
Department of Nuclear Engineering  
University of California at Berkeley

COMMISSION STAFF

BRUCE LUNDIN, Staff Director  
RONALD B. NATALIE, Chief Counsel  
BARBARA JORGENSEN, Public Information Director  
MICHAEL R. HOLLIS, Associate Chief Counsel

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P R O C E E D I N G S

CHAIRMAN KEMENY: Will the meeting please come to order? Since we last met in this room, I am very happy to say that the major problem that we were facing on Thursday seems to have been solved.

I would like to take this occasion to express the Commission's sincere thanks to Senator (Edward) Kennedy for his prompt and effective action in breaking the bottleneck that seemed to block our ability to issue subpoenas and to take testimony under oath.

A compromise was worked out that is totally satisfactory to this Commission and will enable us to do our work. As I am sure all of you know by now, the Senate has passed unanimously the necessary resolution, and that resolution is going to the House of Representatives on Monday (May 21).

(Chairman Kemeny adjusts equipment so he can be heard.)

CHAIRMAN KEMENY: I was expressing the Commission's sincere thanks to Senator Kennedy for breaking through the bottleneck that was holding up our legislation, to say that the compromise that was worked out is totally satisfactory to this Commission.

The resolution is going to the House of Representatives on Monday and we have every reason to believe that it will go through there promptly and that will enable the Commission to take testimony under oath at its next meeting, and therefore



we can get on with the serious investigative work of the Commission without further delays.

As those of you that were present on Thursday know, the Commission did decide not to cancel the Saturday hearings, because we are very eager to hear from the citizens that live near Three Mile Island, about their feelings, impressions and any suggestions they have have for issues that we ought to look at.

We have been swamped with requests to be heard today and we apologize to those we could not accommodate. I hope the fact that the Commission is willing to hear you from 9:00 a.m. til 9:00 p.m. today is an indication of our sincere desire to hear from as many of you as physically possible.

We have divided it in such a way that in the morning session certain public officials will be given a chance for statements of approximately ten minutes, and then individual citizens in the afternoon to be given time for statements of five minutes, with an opportunity in each case for Commissioners to ask questions to follow up the statements. It would be most helpful if each speaker, as he or she comes up, would introduce himself or herself so we have the name on our tape and on our record.

Our first witness this morning is Robert Reid, Mayor of the town of Middletown. Mr. Reid, may I ask you to join us, please?

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Mr. Reid, may I, incidentally, take this opportunity to express the Commission's thanks for your help in making this whole meeting possible for us. I understand that you had a great deal to do with giving us space and making it possible to reach the citizens of Middletown.

MAYOR ROBERT REID, MAYOR OF MIDDLETOWN: Mr. Chairman, Members of the President's Commission on the Accident at Three Mile Island: I would like to first start out asking you a question, through you to the NRC or to the other Federal agencies, why was Met Ed (Metropolitan Edison Company) issued a license to operate Three Mile Island at the time when they knew that this plant was not safe and was not ready to be operated to produce electricity through nuclear power?

You know, I often think and wonder just exactly whose responsibility it was that an accident did take place at Three Mile Island. I would really like to place the blame on three different agencies--the local communities, Metropolitan Edison Company, and the Federal Government.

I really don't believe that the local communities got involved enough with Met Ed to really demand things that should have been uppermost in their minds to protect the citizens of their communities. I think the local communities should have gone to Met Ed and demanded certain things that would assure the protection of the lives and property of the people living

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in their immediate areas. I think the communities should never have gotten involved with the technical aspects of nuclear power, but things that should have been set up in a way that the local communities would have had some input into first-line communications with Met Ed. I think we should have demanded monitoring devices for monitoring radioactive particles in and around Three Mile Island.

I know Met Ed had public hearings but they were required by law to have the public hearings. I think Met Ed should have come out to the communities and said, 'this is what we want to do; we want to have a good working relationship with you communities.'

We know that they had an observation center set up, but the people living in close proximity to the observation tower, these people very seldom went to this observation tower to find out exactly what was going on at Three Mile Island. I don't think it should have been their responsibility. I think Met Ed should have come to the communities and the surrounding communities and should have shown the people exactly what was going on at the island.

I think the Federal Government was at fault. I think the Federal Government is the agency that really protects the life and the property of the individual, because they were the people who were giving out the license to operate this plant.

None of these things were done. Really, if you take

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a look at the United States, the way things are set up in this country, the smallest butcher shop requires an inspection, and that inspector investigates or checks every carcass that is hung. Yet, we had a plant in our area that had the potential to kill millions of people and didn't have one inspector on the job. To me, that is the fault of the Federal Government. That is the fault of the Federal Government.

But Met Ed didn't do its homework. It didn't do its job. And you can't place all the blame on Met Ed or the Federal Government. I know my own community didn't do the job it should have been doing in working with Met Ed and in working with the Federal Government.

So, the blame could really be placed in three areas.

As far as nuclear power in the State of Pennsylvania is concerned, I don't think we need it. We have enough coal reserves to last us for 300 years in the State of Pennsylvania. Half of the money that went into the construction of Three Mile Island could have been used--just half of it--could have been used in research learning how to clean up coal. The Federal Government spent billions of dollars on the space program. The Federal Government should have been involved in research, learning how to clean up coal. The by-products would have been beneficial to mankind. The wastes could even be used by communities in this area--the cinders used in the winter months. What are you going to do with the wastes from a nuclear power

plant?

So there are a lot of things that we have to look at when you talk about nuclear power--an awful lot of things.

That's my feeling. I really feel that we neglected a number of things, not only on Met Ed's part, but on your part, the Federal Government, and our own local government, our state government.

But mainly, I place the blame on the Federal Government because that was the licensing agent. We would not have had that accident at Three Mile Island if the Federal Government would have been on the ball.

Now, if you have any questions of me, ask them, please.

CHAIRMAN KEMENY: Thank you. May I just make one remark, Mr. Reid? I'm sure you know that this independent Commission is charged with looking at all the aspects that you did talk about, including, for example, you put great stress on the licensing procedure. We are charged by the President of the United States to look into the licensing of this particular plant. So the issues you speak to all fall within the purview of this particular Commission.

Are there Commissioners who wish to ask Mayor Reid a question? Governor Babbitt.

COMMISSIONER BABBITT: Mr. Mayor, would you care to venture an opinion on the extent to which your feelings are shared by the citizens of Middletown?

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MR. REID: I think most of the citizens of the borough feel the same way that I feel, except for their feelings as far as placing the blame on three different entities. I am quite sure that they haven't gotten into that part of it. But their feeling as far as the plant being licensed to operate, they feel very strongly about this. A lot of the people that I talked to really placed the blame on the Federal Government for allowing the plant to operate before it was in a safe operating position.

CHAIRMAN KEMENY: Dr. Marks.

COMMISSIONER MARKS: Mr. Mayer, could you tell us what specific community organizations or local government organizations have become involved in looking into the accident and its consequences?

MR. REID: We have a group that is made up from the Chamber of Commerce; I think it's the Forward Group. I think that's the title; I'm not sure. But they are in the process of working with the communities where they feel were affected economically. They are working in that area trying to bring about things that will really help or stimulate the economy of this area. I'm not sure of the title of the group. In fact, I just read their letter last night. I think it is Straightforward or Forward Ahead Group, made up of members of the Chamber of Commerce.

CHAIRMAN KEMENY: Commissioner Lewis.

COMMISSIONER LEWIS: Mr. Mayor, suppose this plant were closed down. What would be the economic consequences to your town?

MR. REID: The understanding that I have, that the borough of Middletown, in fact, this entire area, gets very little electricity from the plant. The understanding that I have and according to the grid system that is set up as far as electricity is concerned, I'm not an expert on it, but most of the electricity manufactured by this plant leaves our state. We don't even use it. We only use a portion of it.

Now, if this is true, if this is true and we only use a portion of the electricity, and the understanding that I have is that it is a small amount, then why should the people of this area be subjected to health problems, economic problems, when really the electricity is really not used in this area? Now, if the electricity goes to Delaware and New York and New Jersey, why not have that plant in those states if they are benefiting from the electricity from that plant?

COMMISSIONER LEWIS: But you haven't answered my question.

CHAIRMAN KEMENY: I think Commissioner Lewis meant something slightly different, Sir.

COMMISSIONER LEWIS: Yes. What I'm wondering is if this plant was not operating in your are, the impact in terms of loss of jobs, etcetera, is what I'm interested in.

MR. REID: From my town, I would estimate that we might have 75 to 100 people working there. I know they do spend money in the businesses in town. But as far as a drastic economic disaster as far as that plant would leave, I really don't think it would be that great. Now, this is my estimation and I'm not an expert in that field.

CHAIRMAN KEMENY: Commissioner Peterson.

COMMISSIONER PETERSON: Mayor Reid, are you working now with the leaders of other governmental units to develop evacuation plans in case another emergency should arise?

MR. REID: My first three months in office I decided that we needed an emergency disaster plan. It was geared not mainly to Three Mile Island but to the Penn Central lines going through our town--the condition of the tracks. Well, if you watch a freight as it goes up and down the tracks, it frightens you. That line carries all kinds of tank cars, chlorine gas and other volatile chemicals and I wanted to have a disaster plan set up just in case there would be an accident from a derailment on the Penn Central lines or AmTrak.

We also have a chemical plant in town. I wanted to be prepared should there be an accident due to that chemical plant. We are close to the Pennsylvania Turnpike. I wanted to have a plan in case of a chemical spill there. (Route) 283 is a busy highway; I wanted to have a plan in case of a chemical spill on that road.

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But I never got the plan finished because it was too much of an operation for one person. I asked a number of people to assist me; I got very little help. The only persons that helped me were my Civil Defense Director and my Fire Marshall. It was really a big operation. But I tackled it; I didn't get it finished. All of a sudden, we had the accident at Three Mile Island. I was very upset because the plan was not completed. But I'm quite sure now since the accident I will have, in fact, I have had a number of people who have come to me and have asked, 'when is your next meeting going to be so we can get this thing finished?' So things have changed.

CHAIRMAN KEMENY: May I follow that up for a moment? You said that plan was finished fairly recently. Is that correct, Sir?

MR. REID: No. It is not finished.

CHAIRMAN KEMENY: It is still not finished?

MR. REID: No.

CHAIRMAN KEMENY: Okay. Then I can ask the question I wanted to. Therefore, you feel that, let's say, a year ago there was no emergency plan for the borough?

MR. REID: As far as the borough is concerned, there was no plan.

COMMISSIONER PETERSON: Mayor Reid, I'd like to try to understand what aspect of the events at Three Mile Island it was that concerned you the most in terms of the hazard to the

community; specifically, were you more worried about radioactive releases that had already taken place, or were you more worried about what might happen if things got worse?

MR. REID: I was more worried about things if they would have gotten worse. I had a radiological team out 24 hours a day in my borough and they were instructed to take readings, the time of the day and the area of the town. During the whole incident those people never got one reading of radioactive disturbance or anything of that nature. I was more concerned with what might happen. In fact, I'm still concerned. What's going on down there now? I really feel as though the people aren't being told what's going on down there.

Information that came out of the plant the first hours of the accident was very confusing. It allowed too many people to use their imagination. Now imagination--that's the biggest nation in the world. This is what happened. The first day of the accident I turned to the different channels on the television and each channel gave me different information.

I still feel the same way today that information is not being given out. Now, they give you information that they want you to believe.

As far as the water is concerned, in the reactor building, I guess it is, one time time I heard--and these were reports on the radio and television--450,000 gallons, 550,000 gallons, a million gallons. What are we to believe if we hear

all of this confusing information? Everything is so contradictory. Again, we are allowing people to use their imaginations because they are not telling us the truth.

COMMISSIONER TAYLOR: Can you recall when, after the start of the accident Wednesday morning, you became most concerned about what might happen?

MR. REID: Wednesday morning I was not concerned. Because I was called out of my classroom at quarter of 9:00. I went to my office and my Civil Defense Director told me it was an accident at Three Mile Island, an on-site accident. At 11:00 o'clock I got in touch with the Redding office of Three Mile Island, their home office, and a Mr. Garry (phonetic), the man I talked to, assured me that no radioactive particles had escaped and no one was injured. I felt relieved and relaxed; I said 'there's no problem'.

Twenty seconds later I walked out of my office and got in my car and turned the radio on and the announcer to me, over the radio, that there were radioactive particles released.

Now, I said, gee whiz, what's going on here? At four o'clock in the afternoon the same day the same man called me at my home and said, "Mayor Reid, I want to update our conversation that we had at 11:00 o'clock." I said, "Are you going to tell me that radio particles were released?" He said, "Yes." I said, "I knew that 20 seconds after I spoke to you on the phone."

Now, this was a Met Ed spokesman, Mr. Jack Garry.

Now, now are we to believe anything? No, I wasn't worried when I was first notified of the accident because I had spoken to a spokesman from Met Ed Company and he assured me no radioactive particles had been released.

CHAIRMAN KEMENY: Dr. Marks

COMMISSIONER MARKS: Mr. Mayor, has any process been established since the accident to keep you or other officials in your town regularly informed as to the present status of TM2?

MR. REID: Mr. Marks, how do you find out about it?

COMMISSIONER MARKS: We hope --

MR. REID: How do you find out about it? You know how I find out about it? The television and the radio. During the accident when everything was going on, my Council president attended some meetings with Met Ed officials. Since that time when things have been quieted down--nothing.

COMMISSIONER MARKS: Has a request been made for a regular briefing by your office?

MR. REID: Through Met Ed?

COMMISSIONER MARKS: Yes.

MR. REID: I haven't heard anything from Met Ed.

COMMISSIONER McPHERSON: Mr. Mayor, excuse me, if I may interrupt, I would be interested in knowing--have you requested information from Met Ed? Have you asked for briefings since that time?

MR. REID: No, I have not. I have not. I don't think it's my place to ask. I think it's Met Ed's responsibility to come to us. They are the people that own that place down there and they are the people who are responsible to the communities close to that plant. This is the problem; this was the problem all along. I think Met Ed should have been more involved. It is their plant, their responsibility. They should have been involved with the local communities all along, and they were not. Like I said, they had their public hearings required by law. They had their public tours, the local officials, to show exactly what was down there. I could have walked down there and never known anything because I'm not in that field. I don't know too much about the atom. What I know, my God, you could write on one line on a sheet of paper.

COMMISSIONER MCPHERSON: Mr. Chairman.

CHAIRMAN KEMENY: Yes, Commissioner McPherson.

COMMISSIONER MCPHERSON: Mr. Mayor, when you began, as I wrote down your first sentence, and I'm not sure I got it correctly and I'd like to know, it was: Why as Met Ed issued a license for this plant when they knew it was unsafe? I would like to ask you two questions about that. Who is the they in it; and secondly, what is your knowledge that the plant was unsafe?

MR. REID: The only way I can answer that question is what I've been reading in the paper.

COMMISSIONER McPHERSON: You don't have any firsthand knowledge of that?

MR. REID: No, I do not. But I think it is common knowledge now. This came right from the NRC (Nuclear Regulatory Commission), the licensing agent, that said it was not safe; there was problems. Now, the NRC put this out. And they were the licensing agent.

COMMISSIONER McPHERSON: Thank you, Sir.

CHAIRMAN KEMENY: Commissioner Trunk.

COMMISSIONER TRUNK: Do you have a list of demands should Met Ed open?

MR. REID: Yes. I had some things that I would like to see done. I think the air in the community should be monitored at all times. I would like to see some kind of monitoring device set up, stationary devices, in three areas of my borough, and those monitoring devices be monitored every day, not with a Met Ed official, but along with an official from the borough.

I think there should be some straight-line communications between the borough and Met Ed. If a fish should jump in the Susquehanna River near Three Mile Island, I would like that reported. I think they should come into the area from time to time and have public meetings with the citizens of the borough, telling them exactly what is going on down there and try to explain, because it is very, very difficult to understand the atom. Most of the people living in this area are

lay people and they don't understand the atom.

I don't think Met Ed should build or construct an observation tower and say "here it is, you come on down and we will explain things to you". I think Met Ed should come out into the communities.

That's just some of the things.

CHAIRMAN KEMENY: Any other questions? (Pause)

Thank you very much, Mr. Mayor. You have certainly given us a great deal to think about, and we appreciate your appearance.

Next on our agenda is Dr. Theodore Gross, Provost, Capitol Campus, Pennsylvania State University. Dr. Gross.

Dr. Gross, before you begin, may I take this opportunity to express the very sincere thanks of the Commission. I must say Penn State, you in particular and some of your colleagues just went enormously out of your way to make this meeting possible and have helped us in every possible way, and we are deeply grateful to you.

DR. THEODORE GROSS: Thank you very much for your kindness.

Mr. Chairman, Members of the Commission: As we began to gain perspective on the incident at Three Mile Island, the question confronting the students, faculty and administration of The Pennsylvania State University/Capitol Campus became clear: What should be the appropriate response of an institution of higher learning to a technological, social, and human

event of such consequence?

The question for us was not merely academic, for we conduct our educational activities within the five-mile radius of Three Mile Island and our students and families live in the shadow of its meaning.

Children of the atomic age, we can still remember the birth of nuclear energy and the creative involvement of many scientists in its original development. Students during several wars, we know the limitations of an educational institution. Teachers of the 1960's, when our students sought to reform the university, we have come to understand both its boundaries and its possibilities. A university cannot solve social problems rooted outside itself, but it can identify these problems and alter social and moral behavior and even help cause a war to terminate. We have seen the power of the academic conscience be very powerful indeed, and we know that an appropriate response can influence an entire society.

What then, we asked ourselves, should be our appropriate response?

On Wednesday, March 28, (1979), when the accident first occurred and on the days that followed, our concerns were entirely practical--we sought to protect the 2,600 students, 150 faculty and 300 supporting staff on t'is campus. Our resident students, separated by great distances from their families, were dependent upon our decisions. Worried parents could not



reach their children because of overloaded telephone circuits. The reports from nuclear officials were burdened by technical jargon difficult to understand. Our engineering faculty conducted a briefing to help us understand what was happening at Three Mile Island. Their efforts helped, but the reassurances from various "officials" seemed unreliable because of conflicting accounts.

It was not until a government official--Harold Denton--spoke with one clear and understandable voice that we could respond intelligently. Throughout these difficult early hours and days of the accident, we depended upon the clear signals sent to us from the governor's office--an office that we felt must have had access to the best information available at the time. We evacuated the campus at 2:00 p.m., Friday, March 30; reopened ten days later, April 9, on a revised calendar which compensated for days lost. Since then we have continued to consider the effect on the morale of our students, faculty, and staff.

The natural desire for each individual to act in regard to this incident was very great indeed. Some among us felt that the appropriate response of the University was to state its unequivocal position on nuclear energy, although it soon became clear that within the university there was not one but many positions, many points of view. Some claimed that the university should not be politically concerned with this issue;

others urged political action. Still others proposed that we monitor the radiation emitted by the nuclear reactor, although that was being done by the Nuclear Regulatory Commission. And many among us urged a variety of research proposals that would investigate the effect on the local citizenry--at once, before it was too late.

One could continue with a list of these immediate reactions, spawned from the impulse to assume an activist role, that would resemble those of most universities confronted with a threat to the safety of its immediate community. These individual responses, distilled by reflection and debate, provided us with a sense of what we felt the appropriate response of a university should be.

Your decision to use the facilities of The Capitol Campus to hold a public hearing provides one clue. The inquiry into this nuclear accident finds its proper setting in our university, where no vested interest can obscure the truth the Commission seeks. It is not accidental that educators dominate the Commission. It is not accidental that a mathematician and college president is its Chairperson. In this society, where so many people grow distrustful when an accident like this occurs, we turn to the university as a countervailing force to the distrust and fear which stem from lack of knowledge or understanding; it seems altogether appropriate that the meeting in Middletown should be here, in the land-grant university. Our

first response, then, is to serve as a forum for your inquiry and for a subsequent fact-finding hearing to be conducted by the Nuclear Regulatory Commission on June 6 and 7.

A second response of the Pennsylvania State University/Capitol Campus is the establishment of a Research Information Clearinghouse for the Three Mile Island accident, a place where the information pertinent to the impact of this nuclear event will be collated and will perform some of the following functions: the collection, maintenance and updating of studies concerning the Three Mile Island incident and its aftermath; the development of a laboratory of pertinent research reports and documents; the publication of a periodic newsletter and published bibliographies to make this information available to researchers and to funding agencies; in brief, a place for the gathering and dissemination of knowledge.

A third response is the encouragement of research that will develop as a result of this most serious nuclear accident. Already researchers throughout the country have begun projects that will attempt to determine the truth of what happened at Three Mile Island and its effects on local citizens; the impact of the accident on residents in our community; the dangers of radioactive waste; the reasons for the confusion in disseminating information to people; the psychological stress it has imposed upon us; the threat to the health and economy of local citizens, and other aspects of this accident that only

independent, disinterested researchers can pursue.

Our final response as a university, as The Pennsylvania State University/Capitol Campus, is to continue to conduct seminars, conferences, and lectures that will call into question individual aspects of this accident. Every element in our society (and in our college curriculum) has been challenged during this incident. Whose responsibility was the Three Mile Island accident? What is the history of nuclear energy and what is its future? What should our energy policy be in the wake of Three Mile Island? What are the economics of nuclear energy? What are the effects upon health? What stress stems from this invisible accident? What civil defense do we need as a consequence of this terrible warning? What are the local, national, and international attitudes toward nuclear power and energy? How was the public informed or misinformed by the media, industry, and government? What has been the effect on the Susquehanna River and our environment? What should be the personal and professional and governmental responsibility? What are the ethical considerations raised by Three Mile Island? What are our judgments? Our conclusions? And what, indeed, are the choices we must make?

Never before have people been asked to live with such ambiguity. The TMI accident--an accident we cannot see or taste or smell--is our invisible wound, our collective wound, our national wound. We may have to live with ambiguity if we

wish to live with energy we now enjoy, but we should know the dimensions of that ambiguity. We need to educate ourselves. We all need to become students in a great university where these questions are examined with a degree of honesty. Must we polarize our attitudes and so charge the atmosphere with passion that reason cannot set forth the alternatives available to us?

We have responded as a university to what we conceive to be our proper role in society. As host for these hearings conducted by this Commission in Middletown; as a clearinghouse for all information pertaining to Three Mile Island; as a base for the encouragement of research that makes our invisible wound more nearly visible; as a catalyst for the convening of seminars, lectures, and conferences to enlighten ourselves and others--as a forum of these activities, The Pennsylvania State University/Capitol Campus has sought to respond appropriately to the Three Mile Island accident.

Thank you very much.

CHAIRMAN KEMENY: Thank you. I would like to ask a couple of questions myself as one who on occasion has had to make decisions about an academic institution, though not on the scale that you have had to face it. I would be quite fascinated to know how the institution made the decision to evacuate the students on Friday afternoon. I'm not asking whether the decision was right or wrong; that's not the issue.

But I really would like to know what information you had available and what persuaded you to evacuate.

DR. GROSS: The situation we found ourselves in on Friday morning was one in which we had to depend, as Mayor Reid indicated before, almost exclusively on the mass media, specifically on radio. We had in my office a radio that was alerting us to what was happening. It was virtually impossible to reach any public official on the telephone. We tried again and again to reach the governor's office, feeling that that was the one office that had access to the most reliable information. And we did finally get through to the governor's office.

But the information we really relied upon was that given to us by radio.

When we felt that it was truly dangerous, when the governor indicated that pregnant women and young children should leave the area as a safeguard, we then met in closed session-- my administration and myself--talked about the alternatives, worried about the calendar, worried about the lost classes on the part of students. Then we put a phone call in to University Park, which is the main campus of the Pennsylvania State University, received clearance from the President of the university, and then announced that the campus would be closed. We put a statement on a tape on a telephone number which anyone could reach who was unclear about the information; and then sent out the information on the radio and on television.

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CHAIRMAN KEMENY: Thank you. I have one more question I would like to ask, then I'll turn to the other Commissioners. I think I'd like to say a word why I'm asking this question so it isn't misunderstood. Only one Commissioner actually lived through the accident at a distance where you have a firsthand feeling on it. One of the things I'm trying terribly hard to come to grips with is the psychological situation and the psychological factors that occur in such an accident.

Mayor Reid, in his very fine statement outlining his worries, mentioned, along with his worries about Three Mile Island, his concerns about the number of other possible health hazards--a train being derailed, a truck that could be carrying highly dangerous chemicals, a chemical factory. I somehow have the feeling that these things would not concern the university as much as the accident at Three Mile Island. I'm not saying that you are right or wrong on this.

Can you help us get the feeling of why this particular accident really seems to have, at an order of magnitude, different reaction from, let's say, a suspected death from, let's say, a truck spilling an enormous amount of noxious material that might have killed 100 people?

DR. GROSS: Well, my own feeling, and obviously this is just a personal perspective, is that, as I indicated in my remarks, this is an accident that is invisible. I think the fact that it is invisible creates a sense of uncertainty and

fright on the part of people that may well be beyond the reality of the accident itself. But when something is visible and one can measure it in some way, but this is invisible, the effects are in the future. We have heard already at this campus a variety of speakers coming to us with different perspectives that we find personally very confusing. The information simply has not been given to us for us to base a judgment on it.

So, the invisibility, I think, of this accident is what causes its terror.

CHAIRMAN KEMENY: Yes. And I gather the confusing information also that you got. Thank you. I find that very helpful. Dr. Marks.

COMMISSIONER MARKS: Dr. Gross, it would be very helpful if it were possible for you to identify the actual data, if any, that led you to the conclusion that the situation was so dangerous, as you just described, to lead to the evacuation.

DR. GROSS: Well, I can remember very specifically on Friday morning hearing on the radio the phrase that "unreleased" -- No, that's not correct. "Doses of radiation that have not been clearly measured have been emitted from the nuclear reactor." That phrase was very troubling to us because there was a kind of uncontrolled effect that all of us felt here. Though we wanted to remain calm and obviously not evacuate unless it was absolutely necessary, it was the uncertainty of the event that was so troublesome.



The information that was given to us was simply terribly confusing. At the beginning, the officials from Met Ed were assuring us that there were no problems. And then the newspapers reported still another perspective. The people on our campus represented different points of view, as I indicated. So it was terribly confusing.

What we finally did was simply sit around a large table, hear everybody out, and then decided that the best thing to do was to err in the direction of caution.

COMMISSIONER MARKS: Did you have any so-called experts, either on the health effects or radiation effects from your campus or the medical school involved in this caucus?

DR. GROSS: Oh, yes. In fact, the first thing that we did, in order to relieve the anxiety, because I knew immediately that the anxiety level was very high on the campus, and one of the thoughts that I had was to ask a number of the nuclear engineers on our faculty to have a forum for the entire campus and simply try to explain precisely what was happening at Three Mile Island. The diagrams came out and the faculty went through a very slow and laborious explanation. As the explanation became slower and more laborious, the anxiety level decreased. As the information, in other words, became clearer and clearer, the anxiety was reduced.

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fearful. So we had a forum; the information was disseminated, and the anxiety level was considerably reduced.

COMMISSIONER MARKS: But what about the health aspects? Did you have anyone speaking to the potential or real risks to health?

DR. GROSS: Not on our campus; we don't have any. The Medical Center, as you probably know, is the Hershey Medical Center, which is about ten miles from here. They were busy, of course, preparing themselves for possible evacuation and for psychological stress that was involved. It is my understanding that they had many people coming to the hospital with psychomatic problems as a result of this accident. But we did not have anybody specifically speaking to the medical questions on our campus.

CHAIRMAN KEMENY: Professor, Marrett, did you --

COMMISSIONER MARRETT: Yes. I wanted some more comment on your statement that you are continuing to consider the effect on the morale of students, faculty, and staff. Could you say a little bit more about what those effects have been and then how you are going about considering these effects?

DR. GROSS: Well, the immediate effect, of course, has to do with enrollment of campus. That is, it is our concern, obviously, that students will come here who want to study in our programs and will not feel that they are in danger. That fear, I think, has affected the morale of faculty,

students, and administration, to an extent. It is the sense, again, of uncertainty, of where are we going from here? Will that plant start up again? If it does start up again, will it be safe? Will there be any danger at all involved? That kind of cloud over everybody, I think, has affected the morale.

Now, how does one combat a situation like that? All I can think of, as somebody who has been an educator now for more than 20 years, is imply that you have to disseminate information, have as many conferences, as many seminars, as many lectures as possible from as many points of view as possible, trying to clarify the questions and to speak to the issues. We have had people here and we will continue having people in the future. Students, faculty, and administration will in a sense, at least, be part of the analysis of what happened, and hopefully, part of the solution.

But it is very difficult to deal with that question. And I think one has to go beyond the rhetoric that is often given to us among public policy speakers, you see, and informers. I think that it is our obligation here to try to get to the truth as much as we possibly can. So by conducting these seminars, I think we are trying to do that.

COMMISSIONER MARRETT: One other question. You mentioned the establishment of a research information clearing-house. Has that been established?

DR. GROSS: Yes, it has been.

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COMMISSIONER MARRETT: Is the information available to us on what kinds of studies have been identified?

DR. GROSS: It is. And that was the purpose of that clearinghouse--to have available to anybody who might be interested in the Three Mile Island accident the information here on this campus.

CHAIRMAN KEMENY: Let's see. Several Commissioners asked for the floor. Commissioner Trunk.

COMMISSIONER TRUNK: I'm still confused on why you evacuated. The governor got on television and he said only pregnant women and preschool children should evacuate if they felt comfortable. It was just an advisory. Now, the campus does not have pregnant women; it does not have preschool children. Why did you evacuate?

DR. GROSS: Well, sitting here and looking back on the situation, I think your question seems very cogent and compelling. On Friday morning when the governor's statement went out, and when the schools in Middletown and in the area closed down, and there was suggestion of evacuation, our thought at that time was to err in the direction of caution. We knew that we could close this campus for a week and still have the same number of classes and the same educational process go on. We would have to schedule classes later in order to make up for what we'd lost, but we did not want to be in a position of holding classes, keeping the campus open, when other educational institutions

were closing down, and when the governor himself was suggesting a partial evacuation.

If it does seem, in retrospect, to be an error, at least it is an error in the direction of caution.

CHAIRMAN KEMENY: May I just make a comment on that, as a university president. I have great sympathy for that and this is why my question I carefully said that I did not ask whether it was correct or incorrect. It is very often, you have to make the decision on whatever information you have available at the moment and sometimes you have to make it right or wrong, and it is easy to get criticized two weeks later when in retrospect it may have been the wrong decision. But I, myself, have to make decisions under great degrees of uncertainty and you just have to take your best guess under those circumstances, I feel.

DR. GROSS: I would also say this. I don't think, truthfully speaking, I don't think that the educational process could have continued on that Friday or on the Monday following with any degree of real meaning under the circumstances, given the media coverage, given the hysteria generally in the country. I should say also that the panic or excitement was much greater as one left this area than it was here. I know, because I went to my home in New York that Friday. As I drove and then came to New York, the anxiety level was much higher in New York, much higher on the mass media, on television, than it was here.

So I can understand your question, Mrs. Trunk..

COMMISSIONER TRUNK: Are you going to change the courses now? The technology students have to take a humanities course. Are you going to make the humanities people take a technology course? Or don't you think they should?

DR. GROSS: No, no, no. I think it is very interesting that the word we use for required curriculum, at Harvard, for example, the curriculum that was just passed by Harvard faculty is called a core curriculum. I don't want to use 'due vantages' unnecessarily but I think that core curriculum has taken on a new meaning for all of us. (Laughter)

As somebody who is a humanist, and has been a humanist for 20 years now in education, I certainly feel the need to be better educated. I would hope that our students would be required to have certain courses in nuclear energy.

COMMISSIONER TRUNK: I agree.

CHAIRMAN KEMENY: May I thank you for the best joke we have had before this Commission yet. Governor Peterson.

COMMISSIONER PETERSON: Dr. Gross, did the nuclear engineers and the nuclear physicists on your campus join in the recommendation to evacuate the campus?

DR. GROSS: I did not seek their specific advice. They were faculty members and the people I spoke to were people from my administrative staff. But I did, as I say, clear this with the administration at University Park before we took



such extreme action.

COMMISSIONER McPHERSON: One question, Dr. Gross. Did you decide to stay out for 10 days or was that decision made subsequently as to coming back? How did you decide to stay out for 10 days?

DR. GROSS: Well, we decided to stay out for an entire week. We projected ahead and we said to ourselves, and as Dr. Kemeny has indicated, this was made in a state of some uncertainty, we felt that once we closed the campus that it would be foolish to keep it on a tentative basis and to tell students and faculty and administration that we might be opening on Tuesday but we might not be opening on Tuesday; we might be opening on Wednesday if things looked better. We felt that we should make a firm and clear decision and that a week would give us time to see the situation abate. That is why we made it one clean week.

In fact, what we did was not make another statement about it; we simply opened the campus on Monday. We did not even issue a second statement saying the campus would open. We just assumed that everybody would believe that it was open. Our intention throughout all of this was to reduce the anxiety level as much as we possibly could.

CHAIRMAN KEMENY: Thank you very much for your testimony.

Our next witness will be Ken Myers, Mayor of Goldsboro.

KEN MYERS, MAYOR OF GOLDSBORO: Mr. Chairman, Ladies and Gentlemen of the President's Commission: When I received this letter from Washington inviting me to attend your session today, I felt that there was some concern in regards to my being mayor of a small borough, population of around 600, and with about 200 homes built in the borough.

In the letter that invited me here, it stated that I should tell you of my role as mayor, and this is what I'm going to do. According to my statement, it is very short and sweet and to the point.

Goldsboro, as you know, is located in Northern York County and is approximately three-fourths of a mile across the Susquehanna River from Three Mile Island.

My role as Mayor of Goldsboro with a population of around 600 residents during the crisis was as follows:

First: I had charge of the local police department and then I deputized three extra men in the borough to help our local Chief of Police, James Herman, to help preserve order and in the patrolling of the borough around the clock, because we had quite a few people leave our town on their own recognition. I think that they were probably concerned and afraid and scared, so those with families of small children just packed up between Wednesday and Friday and took off to stay

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with relatives and in motels and even out of state.

Second: I worked with the local Emergency Operation Coordinator, Dennis Hamsher, in preparing a local evacuation plan for our borough in case we had to leave in a hurry.

Third: I called a special borough council meeting on Wednesday evening at 7:30 p.m. (March 28) to update the councilmen on what we had learned so far about the accident at Three Mile Island. We learned this through the news media and the press; no other way. The councilmen discussed the borough's evacuation plan.

Fourth: I initiated a door-to-door visit to all residents living in the borough by the councilmen and myself. We advised them of what we had learned about Three Mile Island and the accident, what we had discussed at our borough council meeting, and about our evacuation plans. Our Goldsboro residents did not panic. I think this is one cause of why they did not, because we let them know exactly where we stood, what we were going to do, and this, I think, relieved a lot of pressure.

Like I say, though, since that time from, I'd say, Friday until at least Saturday night when we took a special head count through the borough--and in a borough as small as Goldsboro you can do this on foot--so we took a special head count and out of 600 people on Saturday evening around 8:00 o'clock, we had about 60 to 65 people left in the borough. Of course, you know that through that we had to have police

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protection and then is when we called in the State Police who patrolled all night long, and we were up nearly all night long. I know I didn't get to bed until 3:00 or 4:00 in the morning.

The last of my statement is this: The primary concern of all involved over there in that town was really what could have really happened if a more serious accident would of took place and how the people, they discussed how we would get out of town in a hurry and not get involved in traffic accidents and maybe get killed ourselves through that.

That ends my statement.

CHAIRMAN KEMENY: Thank you very much.

COMMISSIONER HAGGERTY: Just a question. Did you say you had 60 to 65 out of the 600 left in the borough, or had left the borough?

MR. MYERS: No. They remained in the borough.

CHAIRMAN KEMENY: So only about 65 out of 600 remained; so about 90 percent of your people left?

MR. MYERS: Yes.

CHAIRMAN KEMENY: Thank you. Commissioner Lewis.

COMMISSIONER LEWIS: Mr. Mayor, it seems your town is really the closest to Three Mile Island facility. When that facility was built, were you warned that this kind of thing might happen? What did you know about it when you agreed to having the facility placed so close to your town?

MR. MYERS: That's a good question and I believe I

will be able to try to answer that. I was born and raised in Goldsboro and I saw that plant being built. But at that time I can safely say that probably 75 percent of our people in the borough did not understand what nuclear power was all about. I think they knew that it was a plant being built to give additional electricity to the area or the electrical companies, but I don't think the word radiation meant a darn thing. Now, that's my personal opinion of it.

COMMISSIONER LEWIS: Looking back on it now, did you feel that you should have been, somebody should have made an effort to teach you, or was the failure the failure on the part of the citizens themselves to inquire?

MR. MYERS: No, I think the failure lies with the people that built the plant. I think their public relations really stunk, in other words. Because I don't think they came out and told the people exactly what the plant involved. I really do think that that is what should be--a better public relations system.

COMMISSIONER LEWIS: Do you have regrets now that you have the plant so close to you?

MR. MYERS: No, I really don't regret it.

COMMISSIONER LEWIS: Why not?

MR. MYERS: Well, the first thing, I'm not afraid. I said this on TV on television and radio stations and in the newspaper and press before. I'm concerned but I am not afraid

and that's two different words in my book.

CHAIRMAN KEMENY: Professor Taylor.

COMMISSIONER TAYLOR: Mayor Myers, you indicated, I gather that you and the rest of the community were mostly concerned about things getting much worse.

MR. MYERS: Yes.

COMMISSIONER TAYLOR: I'm very interested in knowing how you reacted to the press statements, the media statements, that there appeared some hydrogen in the reactor and in the containment and there then developed talk about a hydrogen explosion. I'm curious to know whether that increased your concern considerably or not.

MR. MYERS: Yes, I think that was a major concern, especially when the press and the news media reported the possibility of a bubble appearing in the reactor. I think that caused a great concern. I think when that announcement was made, I think more of our people did flee the area after that.

COMMISSIONER TAYLOR: Do you think that a majority of the people had already left before that word came through or --

MR. MYERS: I don't think a majority did, no. There was quite a few left, but it's hard to tell the exact numbers; you know what I mean.

COMMISSIONER TAYLOR: I understand. Thank you.

CHAIRMAN KEMENY: Professor Marrett.

COMMISSIONER MARRETT: Mr. Mayor, you indicate that you and the other councilmen made door-to-door visits to those

who were remaining in Goldsboro. Could you say something about what you told the residents? You said you were advising them of what you'd learned about the accident. What did you tell them? How much technical detail, for example, was involved?

MR. MYERS: I'll try to answer that one. On Wednesday evening after our borough council meeting, I suggested to the borough council that why not go around door-to-door and talk to our residents. Our population isn't that high, because out of the 600, I could safely say that we have quite a few children. They all agreed that we do this. So we assigned certain streets in the borough to each councilman and myself and we went house-to-house knocking on doors. We were very graciously invited in; I must say that. Everyone listened to what we had to say.

We mainly told them of what we had heard through the radio, TV, and even our own public relations and communications department in the basement of the York County Courthouse through County Control, which we were in connection with.

Then we told them also of our evacuation plans in case the governor would declare emergency and that we would all have to leave. Of course, right away they gave us questions: "Well, what should we do? Do you think it's safe that we should stay or do you think we should go?"

The ones that I talked to, I told them: Use your own judgment. We dare not tell you to leave your homes. That's one thing we dare not do. You can stay with your home come

hell or high water. We cannot tell you to leave. But we can advise you that leaving maybe would be the best thing, especially with small children because of what we already knew and about the leakage of radiation in the area.

Like I said before, I told quite a few people: Who are you going to believe? You listen to one radio station and you hear one story; you hear another story from another radio station; and the TV the same thing. So who are you actually going to believe?

I don't think anybody can answer that.

COMMISSIONER MARRETT: You were relying entirely then on what the media reports were with reference to the information about the accident?

MR. MYERS: Yes, yes. Of course, every home we went into, you know, you ran into the TV in the living room because they had it on and was listening. Of course, then, we also told our residents that their house would be protected if they did leave, that we would have enough police coverage and we would patrol the town very well.

I must say that no incidents happened in our borough at all; through all those people leaving, we had no houses broken into, no looting. And I can safely say that all of our people were calm to a certain extent. You have some people that are really worked up over a little bit of anything, as far as that goes. But most of our people, I think, were calm and not



panicky at all. But I think they would have been if we had not gone around house-to-house telling them of what we had learned and what we had in mind of what we would do.

CHAIRMAN KEMENY: Since I also am a resident of a small town, though not quite as small as your borough, it does bring out the great advantages of small, closely-knit community that you are able to go house-to-house and talk to everyone. That is remarkable.

Are there any other questions? (Pause) Thank you very much for coming and testifying before the Commission.

MR. MYERS: You're welcome.

CHAIRMAN KEMENY: Our next witness is Paul Wise, President of the Middletown Borough Council.

MR. PAUL WISE, PRESIDENT OF MIDDLETOWN BOROUGH COUNCIL:  
Dr. Kemeny, other Members, Ladies and Gentlemen of the President's Commission: Paul Wise, President of the Middletown Borough Council. I have a prepared statement here that I would like to read.

Sir, since the accident at Three Mile Island early on the morning of March 28, 1979, the members of Middletown Borough Council have been giving careful consideration to the entire incident. The events that have taken place in the aftermath of that accident have been extensively reported by the media. In addition, each councilman has either received reports or has had first-hand knowledge of many of the experiences that

resulted on the local scene.

Both as a body and individually, Borough Council has heard varying reactions and responses from the citizens and businessmen of Middletown. However, before making any judgment in the matter or taking any official course of action, Borough Council is awaiting the findings of official review bodies at the state and federal levels, such as the President's Commission.

In any event, the indications to date appear to clearly point to the need for strengthening the Nuclear Regulatory Commission and for tightening the operating practices and procedures for civilian nuclear power plants. I urge that the President's Commission act thoroughly but swiftly in order that whatever needs to be done can be accurately determined and promptly implemented. Thank you.

I also would like to make a statement that before our April Council meeting there had been several citizens who had appeared and requested that the council draw up a resolution to close Unit 1 and Unit 2 nuclear plants at TMI. Just recently, last week, we know that there is a petition being circulated within our borough requesting our citizens to sign another petition which I am sure we will have before us at our May meeting Monday night.

Some questions asked of these citizens are:

- There were too many unknowns by Met Ed and state officials. What amounts of radiation to the public were

really released?

- Emotion stress, real danger not given to the general public in all the areas surrounding TMI. We should have had evacuation plan ready prior to the accident.

- Three Mile Island should be converted to use coal.
- NRC on-site inspection is a definite.
- Better reactor training for reactor operators as specified by the NRC.

I would also like to add that I was asked by the mayor to attend briefings that were conducted by Met Ed on the mornings of Friday, Saturday, and Monday. When I pursued to go to the Old Crawford Station, which was the coal facility that was used before the construction of the TMI facilities, on the way to the meeting I had my radio on and, of course, as we all know now, we heard this word about the radiation releases. Before I went to that meeting, I went to the borough office where the mayor was and I must state that were in quite a state of panic situation at that time, not knowing what to do. At that time we were trying to prepare for the officials that were there; the fire chief, the civil defense director, and the fire marshall and the mayor were all trying to decide in what event we should do should we do any sort of evacuation.

I was asked by the mayor if I would then attend the meeting at Crawford Station. Attending the meeting at Crawford Station, when I left that meeting, I was assured by the officials

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that were there that they felt everything was under control at that time. George Tropher, who was the public relations director of Redding, stated in the meeting that they saw no need for any kind of evacuations at that time. When I left the meeting I felt very assured that things were well under control.

Of course, you know, as the incident that had taken place, what some of the releases were with news releases of what some of the aftermath was.

I also attended the meeting Saturday morning and at this time we were made aware of some of the critical situations that they had gotten into, such as the hydrogen bubble. I would like to state also that at that meeting, Mr. Tropher was quite alarmed at the news of the evacuation, that Met Ed did not seem to think that there was any need for that at all.

These are some of the questions that we, as borough officials, would like to know:

- Was there a need for evacuation?
- Do we have to be in a situation where we have to live under these conditions, be prepared for an evacuation, through an incident like this?

Met Ed seems to think that, no, there is no need for alarming unless they give us the word, although when we read our newspapers and hear the other reports we have to feel differently.

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I also would like to state that when we talk about the closing down of nuclear power plants--I'm a lifelong resident of Middletown and I remember back in the late 50's when there was a petition circulated to close down the Crawford Station. The Crawford Station was a coal fired station and the one thing that we heard so much of was the release of coal soot. The petition was circulated and Met Ed in turn converted to oil.

So as we progress in our society, we go from coal to oil and now we are living in a nuclear age. Are we at a point that we live in a nuclear age that we say we should be converting back? Or should we say that nuclear is the answer? These are the questions that ponder most people when they say to themselves; which way are we to turn?

We, as council, do not feel that the closing of Three Mile Island would be the total answer. These are the questions that I think the Commission has to ask itself: Do we develop fusion power? I've done some research on fusion power, and to date there are \$2 billion in federal funds that have been invested in fusion research over 27 years. Researchers estimated \$12 to \$16 billion will have been spent before fusion power is practical for use.

So I think the question is: Can we make nuclear power safe? We must make nuclear power safe. Thank you.

CHAIRMAN KEMENY: Thank you. Questions from

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Commissioners?

COMMISSIONER TAYLOR: I'd like to follow up a little bit on your comment just now about fusion. Do you believe that fusion would be safer than nuclear fission? I'm not sure I understand the point you were making about the government --

MR. WISE: I have a report here that, being in development work, I receive a machine design magazine and the statement is made that a fusion power plant will have little of the radiation danger of present nuclear fission plants.

COMMISSIONER TAYLOR: So that's the basis for your telling us about the expenditures?

MR. WISE: Yes, Sir.

COMMISSIONER TAYLOR: Were you giving us those numbers to indicate that they were much too small or what? I'm not sure what --

MR. WISE: Pardon?

COMMISSIONER TAYLOR: I guess I'm asking why you are interested in the expenditures of federal money for fusion.

MR. WISE: The reason I make that comparison is because I think we live in a society today that we demand more energy. When we relate to the development of energy, and I know that when we compare, just for instance, the power plant that is across from TMI is a water power, hydroelectric power; that produces 19 megawatts. The two units combined at TMI produce in excess of 1600 megawatts. Now, the answer, when you

say to yourself, what do we do for energy, and all of our demands that we ask of energy today, can we convert back to coal that can produce the amount of megawatts that we get from nuclear? That's why I feel that the future of energy has to be safe and clean, but with what source?

COMMISSIONER TAYLOR: Thank you.

CHAIRMAN KEMENY: Thank you very much for your testimony before the Commission.

MR. WISE: Yes, Sir.

CHAIRMAN KEMENY: Next, the Commission calls Mr. Albert Wohlsen, Jr., the Mayor of Lancaster.

MAYOR ALBERT WOHLSEN, JR., LANCASTER: Mr. Chairman, Members of the Commission: I'm being joined by Peter Schonauer (phonetic) who is my administrative assistant.

COMMISSIONER MARKS: We cannot hear at this end of the table. The echo just prevents us from hearing, unless the witnesses speak very close to the microphone; and even then, it is very difficult (to hear).

MR. WOHLSEN: I would like to thank the Commission for this opportunity to express my views about the Three Mile Island Nuclear Plant accident. By way of background, and for your information, Lancaster is the largest metropolitan community located southeast downwind of Three Mile Island. We have the strong mayor/city council form of government and I am

-serving as the interim mayor of Lancaster, which is a full-time position.

My background is 40 years experience as the former president of a family-owned general construction and engineering firm established in 1890 involved in the construction of industrial, commercial and institutional projects.

The week to ten-day period following the March incident at Three Mile Island was one of the most trying periods of my life. This time for me was filled with great uncertainty and soul-searching.

As mayor of the City of Lancaster, I am responsible for the welfare of approximately 60,000 people who depend on city government and me for leadership, especially during an emergency like the one we are discussing today. This is a responsibility which is always foremost in my mind.

Before I proceed further, I would like to say that I realize there has never been before an accident like the one at Three Mile Island, and because of the uniqueness of this accident, government and utility officials were understandably treading on new ground and facing problems never before faced. For this reason, I want it to be understood that my criticisms are levied in a constructive sense, so that if such an accident should ever happen again, the same mistakes would not be repeated.

One theme which is evident throughout this entire experience, from the time of the accident itself to the present



deliberations of how to dispose of radioactive water at the nuclear power plant, has been a total disregard and lack of consideration for the responsibilities of local government. By far the most serious problem faced by the city's civil defense organization and the city staff was and continues to be a lack of constant and reliable information upon which to base intelligent decisions. No person was willing and available to answer our basic questions, and those questions about which the citizens of our community were interested. Such questions as: How could this problem which was taking place only 23 miles away effect the City of Lancaster? What effect would it have on our water supplies? What problems of fall-out might the public face if the situation got out of hand? These are reasonable questions which the public had a right to have answered and to which there were no available answers.

Other questions included: What was the basis for setting up the 5, 10, and 20-mile evacuation limits? We assumed that a margin of safety was included in setting these limits, but we were never certain. We also wanted to know what information we should disseminate to the public as to any precautions they might take.

We were not advised as to, in the event there was a 20-mile evacuation called for, as to how we should advise the citizens of our community as to whether we continue business as usual, do we close the schools, do people take cover, and

just what they should do in that event.

During the emergency period, no one from the Nuclear Regulatory Commission or state government bothered to call the City of Lancaster government staff. On the Sunday following the accident, I initiated a call to the office of the Governor, but was referred to a press assistant. The responsible City Staff and I were, in effect, left to grope our way toward making decisions in this situation.

The consequences of this lack of information and disregard for the citizens of Lancaster could have been very serious. I say this with the realization that the NRC and state officials may have been preoccupied with problems at the TMI site and that the lack of consideration was probably not intentional. But members of my staff began feeling that the "experts" thought they had the situation in hand and that there was no reason to contact the mayors of nearby boroughs and cities. I am sure the local government officials in the TMI area would unanimously share my opinion. We had to rely solely on the media for our information. Those reports were often misleading and conflicting.

Because of this information void, the city staff and I decided it would be prudent to operate under the assumption that the worst was likely to happen. In fact, after a March 31 meeting with the County Civil Defense officials, who had the same informational problem as we had, city staff and I were

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convinced there was a very good chance that some type of evacuation would take place.

Operating under the assumption that the worse would happen, preliminary planning was begun on Friday evening, March 30, for a possible evacuation of the community. On Monday, April 2, detailed contingency plans were essentially completed. The positive aspect of this accident is that the City of Lancaster now has a very well-thought out evacuation plan in readiness for future emergencies.

All during this very critical and uncertain time, in the back of my mind and in the minds of my staff members, was the possibility of exercising the mayor's authority to order the evacuation of the city. Certainly, considering the lack of information and in light of the serious duties of my office, I thought constantly about this possibility.

The lack of information has continued right up to the present time. Imagine yourselves as average citizens in a situation where you read in the newspapers that a utility, which has just mishandled a nuclear accident, and a federal agency are contemplating a plan which could conceivably contaminate your water system with radioactive elements. I'm concerned, as I'm sure you would be concerned, about this. Why didn't Metropolitan Edison or the NRC let the City of Lancaster know that they were planning to discharge hundreds of thousands of gallons of radioactive water into the Susquehanna River,

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the source of much of Lancaster's water?

I might mention that there was a meeting in Hershey this past Wednesday at which time NRC and the Met Ed representatives briefed those people who were invited to attend the meeting. We heard about the meeting through the media and our state senator's office. The meeting was on Wednesday; we received our invitation on Thursday morning.

Another serious problem was created for us by the seemingly arbitrary 20-mile evacuation planning limit, and the resultant lack of inclusion in the planning itself. As I said previously, Lancaster is 23 miles from Three Mile Island and three miles outside the evacuation area. While plans were put together for the 20-mile area, we felt it was incumbent upon us to continue formulating our plans. It was conceivable to us that the situation could have gotten worse and that Lancaster could be included in an evacuation. If no one else was planning for us, we had the responsibility to do so, even if it was independent of their planning.

It is obvious to me that this lack of information and coordination could have caused terrible problems of public confusion and panic, and that an orderly evacuation of Lancaster would have been very difficult to achieve.

I would again like to say that my remarks are intended to be constructive. I believe the lessons we learn from this accident should be remembered by those who may be in charge of

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decision-making and information disseminating in future emergencies, should they occur. Local government officials should be notified and kept abreast, as is practically possible, under the dictates of an emergency. This much is owed the people of our country.

I would again like to thank you for this opportunity to present testimony before this Commission.

CHAIRMAN KEMENY: May I follow-up your very helpful statement since it speaks very directly to one of the major charges we have from President Carter, and I quote:

"What steps should be taken during similar emergencies to provide the public with accurate comprehensible and timely information?"

We are ordered to make recommendations on that. May I therefore ask, have you had the chance to think what machinery would have been effective? What would you have liked to have had happen?

MR. WOHLSEN: As far as the information, it would seem to me that it is important or would have been important that we had had a line of communication with either the state level or the NRC where we would receive direct, good, solid information from someone in authority who could appraise us of what was contemplated for our particular area. We felt that we were completely in the dark in Lancaster, that our information had to come from the media and the press, and of course,

some of that was confusing.

Actually, I would say we were looking for orders from someone in more authority than we had in our municipality.

CHAIRMAN KEMENY: Professor Marrett.

COMMISSIONER MARRETT: Mr. Mayor, I'd be interested in what kind of information did your office transmit to the citizens of Lancaster. Once you had information, how was that passed on, what kinds of recommendations, comments about evacuation or whatever, was taken care of out of your office?

MR. WOHLSEN: We, of course, met with our staff and we formulated a civil defense unit very quickly over that weekend and we set up committees in connection with the utilities; we met with the various utilities; we set up plans for the evacuation of the hospitals and the elderly; we arranged for food and transportation and all those things that would have been necessary in the event of an evacuation. We communicated with the citizens of our community through the newspapers and through the radio, indicating to them that we were preparing contingency emergency plans.

COMMISSIONER MARRETT: Did questions come into your office regarding the advisability of evacuation, and if so, how were such questions handled?

MR. WOHLSEN: I beg you pardon; I didn't hear you.

COMMISSIONER MARRETT: Did people ask you whether or not they should evacuate Lancaster; that is, did calls come

directly to your office asking about whether or not they should leave and if such calls came in, what advice, comment, or whatever, was passed on?

MR. WOHLSEN: Well, we didn't indicate to them that they should evacuate. We indicated to them that we would advise them at the point in time that it was determined that we were either called upon to evacuate or if the mayor's office had made a decision to evacuate.

CHAIRMAN KEMENY: Dr. Marks.

COMMISSIONER MARKS: Mr. Mayor, I wonder if you could inform us about two aspects of this crisis. One, do you have a health officer that you have identified to whom you can turn with respect to advice in such crises as to the real and potential dangers to public health and safety?

MR. WOHLSEN: Yes, we have a health officer. I'm would not say that he is qualified to make the determinations as it relates to this type of an accident. Now, we did monitor at our local fire headquarters for radioactivity and the hospital did that, and the college in our community also did some monitoring.

COMMISSIONER MARKS: If he is not qualified, does he have any established means of access to, say, state authorities who are qualified to obtain information to advise you in a situation like this?

MR. WOHLSEN: Well, he would have access to the state

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health authorities, probably the same access that I would have to the governor's office.

COMMISSIONER MARKS: From what we've heard, that doesn't seem to have been very effective.

MR. WOHLSEN: That was not very effective.

COMMISSIONER MARKS: How do you communicate to the people of Lancaster in a situation like this, advisories with regard to what they should or should not do?

MR. WOHLSEN: This is done through news releases, the radio and television.

COMMISSIONER MARKS: There is a local radio station to which you have access in Lancaster?

MR. WOHLSEN: Oh, yes. Yes.

COMMISSIONER MARKS: Thank you.

CHAIRMAN KEMENY: Commissioner Lewis.

COMMISSIONER LEWIS: Mr. Mayor, you talk about the information problem. Would it help to have something like a hotline between the local governments, organs, and, say, the state? Would that be the sort of thing you would need?

MR. WOHLSEN: Yes. Yes. Very much, yes. We felt that we needed someone that we could pick up the phone and talk to a person who had access to good, solid information.

COMMISSIONER LEWIS: Are any of the local authorities like your own moving toward that? Are you pressing the state to establish that kind of line for you?



MR. WOHLSEN: Well, not a concerted method, but we are mentioning it everywhere we have an opportunity, such as this Commission and this forum.

CHAIRMAN KEMENY: Thank you very much, Mr. Mayor

MR. WOHLSEN: Thank you very much.

CHAIRMAN KEMENY: Next witness?

MS. JORGENSON: Our next witness is Mickey Minnich from the Newberrytown Steering Committee.

MR. MICKEY MINNICH: Good morning, everybody. My name is Mickey Minnich, and I'm an educator by profession. I'm a member of the Newberry Township Steering Committee for TMI. We have had meetings every Thursday since the incident, accident, whatever you want to call it, trying to find the truth. We are trying to establish ourselves or find a clearinghouse of truth, which has been very difficult.

At our latest meeting this past Thursday we had Congressman Goodling there asking him certain questions trying to go through the democractic process.

I live three and a half miles from TMI and I'm west of Goldsboro, and then Yocumtown, and then our little development, which we feel is kind of in the forgotten part of this whole incident. Hopefully, at some future time some things will be held in Goldsboro, in Yocumtown, because the people there are very concerned.

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I wonder how I can really help here? If I can introduce the human elements, I think that could be my big contribution. As I talk about my family, sometimes I get emotional and I might have to back up and take a drink of water, but I think being a parent, you all understand that; that's just the nature of my composition as a human being.

I have participated in my first march down at Washington. I want to inform the public that if you are an activist that doesn't mean that you are a long-haired hippie, whatever they call you, a communist; though I've been called all those things, which has been interesting. I plan to go to the March on Redding tomorrow for the mothers and children.

I want to thank you for the opportunity to speak here because I feel the consumer has so little time to make an impact. When you are a commission on the PUC, when you look at the hearings with Metropolitan Edison and PUC, they have like eight full days. I had five minutes. I think that is an imbalance. But I don't know how you can correct it. Hopefully, the PUC and the consumer advocates office will represent us well.

But I evacuated on March 30, a Friday, and I returned once they allowed the pregnant women to return because I have two small boys, 9 and 11. The radiation doesn't know the difference, I think, between 9 and 6, or 7 and 6, or 8 and 6 years of age. I think radiation might know the difference about

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body mass and not age.

But I left in fear and I still have fear now. Friday morning, this may sound insignificant to you, but they were crop dusting in our development, and at 5:50 in the morning, zoom, a plane came over our house at treetop level. I got up, the family got up; I ran out in my bathrobe on the front lawn and I saw other people out. At first I thought it might be the State Police. I know this sounds odd and maybe I'm paranoid, and this is what this whole thing has done to me, because our group has been investigated by the State Police because we have certain views, you know, about this whole incident.

Then I said no, it has to be, there's an accident at Three Mile Island and they're doing radiation checks. So I thought that and I was about ready to get my family all together and evacuate again. This is how paranoid one can get. Then I called our local township. They said don't worry about it; they are only crop dusting.

Don't worry about it. I looked out: You say a man in his pajamas with his binoculars; you saw kids out on the lawn at 5:50 in the morning. So that's the fear that I feel.

How do I feel now? When I came into this hearing, coming off the turnpike, I saw the towers. I have such emotions when I see the towers that I want to tear them down; that's how I feel. Then I look, and I said, wait a minute, they remind

me of one of the seven wonders of the world--the pyramids. I said what was forgotten in one of the seven wonders of the world was all the people lost their lives building the pyramids. That just went through my brain as I saw those towers. And that is how I look at that: the number of people that could lose their lives because of Three Mile Island and nuclear power.

Even yesterday, I called the Pennsylvania Bureau of Radiological Protection; -I try to call them daily. I said, what is being emitted from the plant? They said, zero, nothing. They said the charcoal filters are doing the job, there's no iodine, nothing to worry about. I said, you mean to tell me that nothing is being released? They said, yes, you have nothing to worry about; everything is under control.

I know this Commission went Thursday to visit Three Mile Island. I called another source and they said, that's an outright lie. There's radiation being emitted from Three Mile Island. Right away, there's the fear of the truth. I don't know who to believe or what to believe.

People are calling me all the time now because of my involvement in Newberry Township. People are having nightmares over this whole matter. A mother having daily nightmares, running away from the towers pulling her child, that type of thing. Mothers not allowing their children to drink milk, only the powdered milk. Somebody you are going to hear testify later, his family just returned from Sweden this past Tuesday,

he was that scared. People from Goldsboro calling me all the time: Hey, Mr. Minnich, the helicopters are flying, the Met Ed trucks are going up and down and I think they're messing with us again. So I call Bruce Smith and we have a little geiger counter and we try to check it out and we call them back and say, hey, everything is okay.

So we have this all the time. Even at our meeting on Thursday there was a mother who said, I'm not becoming pregnant; I'm not going to take that chance. There is that type of fear over your health. Then when you a father and you look at your boys and you wonder if they have been affected by it; that is real fear.

But along the health aspect, we have a health committee. We would like to see a 30- or 40-year program, not a handout program--I don't know how you would finance it--where everybody in a five-mile radius, ten-mile radius would be monitored yearly, blood work taken, to make sure that if anything happens, people aren't going to say in the year 2000, Gee, look what happened to those people in Newberry Township, in Goldsboro. We would like to see people like myself protected because I've lived through cancer deaths, and it dessimates your financial bases. So if I would have to die as a result of this, that I'm not wiped out; that my family is taken care of. I think that should be looked into. We have strong concerns over this health issue. Plus we do not feel that we are

getting the truth and that this is being monitored properly at all. We would like to see some outside agency that is not caught up in this nuclear juggernaut, that's not caught up in this whole mess, that doesn't have a vested interest, to come out and tell us the truth.

I really do not believe the truth is being told, and I just cite it from what I read in the newspapers. Why South Carolina rejected the latest shipment from TMI because of plutonium, and they said in the paper that every time you call, is plutonium? Don't worry about it; we can't detect once ounce of it; it's not here. We know that is the eternam alpha emitter and that is the real killer.

But, anyway, you don't want to hear the emotional things, but maybe you do, and I hope to finish here very quickly. Presently, in taking petitions around and everything, this area right now is currently paying some of the highest utility bills in Pennsylvania. I went to one family: their utility bill through the heating month is \$300 per month. My brother is \$250 per month--and I can show you those bills. There is a retired couple that can't even use their electricity; they have to use coal, so he had to build a little coal storage outside to deal with that. I just use it, basically, I heat with a wood stove. The rule of thumb is you pay more for your utility bill than you do for your mortgage. People are really cramped.

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I bring up about the purchasing power, and I don't know if this is the nature of your Commission here; we have an attorney on our steering committee and he said if Met Ed is allowed to pass the purchasing costs to us, we will have the highest utility bills in the United States of America. Whether that is 1, 2, or 3, that is pretty gosh-darn high. So we can't afford anymore, number one, when you get to dollars and cents. We feel, as everybody feels, that Met Ed and its stockholders should pay for it.

Now, you know, I'm an educator. I can't afford to invest in stock. I checked one time and I backed out because the guy told me 'if you can't afford to lose the money you are going to invest, don't bother with it.' So I did not that. So this whole controversy over Met Ed going bankrupt and dealing with that issue has us very angry and confused.

Our steering committee has certain ideas on that, but due to time, I'll pass over that. We are strongly in favor of a consumer owned utility where we will get a safe, reasonable fair price for our electricity where we have a choice in it, because we didn't have a choice with Three Mile Island. I think it was the greatest snow job of this decade.

Maybe I was ignorant. I admit that I'm at fault, that I wasn't aware, that I wasn't involved, that I didn't know what was taking place. But I would have known and if our community would have known, I don't think you would ever have

that Three Mile Island facility produced.

But back to my family. You know, in our development, three out of 70 people stayed. I'm not like the mayor of Goldsboro and say I'm not afraid; I am afraid of certain things and I'm afraid of the unknown that I can't see. That's one thing about radiation. I almost didn't make it here today to this hearing. When I had breakfast I was assaulted by some farmers over there that said, "If we had people like you we never would have won World War II." I said, "Yes, but at least then I knew who my enemy was." I said, "I was in the Army." And I'm in that type of argument.

But I'll never forgive nor will I forget what Met Ed did. Put yourselves in our position on Wednesday, and my boys were at the bus stop at 7:00 o'clock. And Thursday at the bus stop and Friday at the bus stop, and they did what they pleased on releasing radiation. They did what they pleased and we didn't have a hand on the monitoring until Saturday.

If I could just read you a little article out of the paper here, which is out of the Philadelphia Inquirer, from Donald Costle (phonetic), the EPA, Environmental Protection Agency. He said:

"The gravity of the situation appeared very slowly. The first real signal of the seriousness of the situation did not reach me until Friday morning, three days after the reactor went out of control on March 28." He said, "The radiation



monitoring systems around the plant could not cope with the emergency situation. It was not until Saturday when EPA set up monitors that adequate information on radiation was available." He said, "The EPA was unprepared generally to provide immediate assistance."

I only read that, that what were my children and myself exposed to in those three days? The irresponsibility of Met Ed and the irresponsibility of NRC and how could this every happen?

I just hope that we do not become a statistic in 20, 30 years from now, but I know we are going to be a statistic. Califano came out and said one, ten, -- I have the feeling anything you hear from the government multiply it times ten. I don't mean to be snide about that. But who is the one? Have you lived through a cancer death? I have. If that one is my son or my wife or me, I think it's wrong.

But anyway, with my feelings understood, asking me as a consumer to pay for any cleanup which insurance would take care of, or any purchasing power, I think is like asking the survivors of the holocaust to pay for a retirement village for the SS. I really believe that. I don't say that to play on words. I look at Metropolitan Edison and maybe some other people, not as murderers but maybe as murders, but it's the murder that won't show up for ten, twenty, thirty years from now. In fact, I feel so strong about it that if they pass on

the cost to me and the PUC allows them to do that, I'm not going to pay it; I'll go to jail first. I'm willing to suffer the consequences for that. They may call you a radical or whatever. I like to think it's a patriot. I don't know what things keep buzzing through my mind--"don't tread on me" or things like that, or maybe I'm wrong in those feelings, but this is how I feel, many people feel.

There's a key issue here that I hope you address yourselves to, and I'm trying to in education, is responsibility and accountability. When will someone--I wish I could do it--please say to somebody in Metropolitan Edison and all their affiliates, "You are wrong. You are responsible. You are going to pay the consequences."

If you would do that, or anybody, I think you would hear America get up and applaud and you would hear applause through the country. I think that would be a positive step in the right direction. Nobody has done that. This would put big business and all utilities on notice. "Listen. You are accountable when you deal with human lives; and if you do this, be ready for this action."

I think this is the problem in our country. I take this responsibility issue and I know we have some educators on this Commission here. Parents no longer, many of them, feel responsible for their children. We have a great throw-away generation with children. Teachers sometimes aren't responsible

for their students: "They don't want to learn; I'm not responsible." Educators aren't responsible for the curriculum: "I don't have any money; what do you expect?" And when is the whole vicious cycle ever going to stop?

The justice system: I just read in Philadelphia, a young man banged the head of a woman against a wall; killed her. He's going to get three to 30 years because he was not responsible at that time. So I think this is a key, monumental case right here, very serious and I hope someone has the courage, but with a vested interest, can you have courage? I don't know. Just say, "Met Ed, you were responsible; you will pay."

You know democracy has a key test right now and maybe this is not what you want to hear. But our motto on our committee is "People do make a difference." But I was at the rally in Washington and there were a lot of young people there and a lot of middle-aged people like myself with gray hair, etcetera. They're saying, look, don't waste your time; people do not make a difference; money, big business speaks.

So you have apathy. In our primaries here, I got out and worked for my first time and lost for somebody I was supporting. Only 24 percent voted. This is causing apathy. Look at today. You would think that this would be filled with people vitally interested in it. They are not, because they feel that, really, their input does not make a difference.

But honestly, you know what, I just talked to somebody

before I came in here that said, you're wasting your time; you don't make a difference. As I started looking at the facts and jotted them down here, our governor has come out and stated publicly that we should pay. Maybe not the full cost, but that we should pay. In fact, we tried to get the truth after our first three meetings; we couldn't get to first base with anybody. So we said, let's go to the governor himself as responsible citizens. We called his appointments secretary; he said the governor doesn't have time to meet with every radical, splinter group that comes along. We tried the lieutenant governor. He had more important business to attend to. So that got us upset but that didn't deter our energy to find the truth.

Look at our consumer advocate. Mark Woodoff (phonetic) resigned. They knew four or five months in advance he was going to resign. Do you know we don't have a consumer advocate fighting Met Ed, representing me? How else am I going to be represented? Do you know they should have eleven lawyers? They are down to seven. They may lose three more; they're down to four. And their morale was low and they are in a critical battle like this. Where do I turn to?

So we're turning to our legislators. But I'm finding they are very apathetic about it and they won't give you a straight answer. Even Thursday, Congressman Goodling said, I can't give you an answer until I find all the facts.

I think the facts about Met Ed are so evident you'd

stumble over them if you didn't even look for them. And now the Attorney General's office is interfering with the Consumer Advocate's office, which I don't know the reason behind it.

If you look at the PUC which is supposed to represent me, Heavens! that's the only check we have on this monopoly. They are our free enterprise system, you might say. Historically, they are pro-utility, but Thornburgh just appointed Robert Bloom, or nominated him for the PUC; he is so pro-utility he is the only one that voted against not shutting off the electricity for elderly people. He thought if they didn't pay the bill, it should be shut off. We are very concerned about that.

Even President Carter and Schlesinger. We worry about what is the bottom line. I know I'm naive in this. I hope to finish up in one minute here. What is their influence even on Governor Thornburgh? Because we feel that the State of Pennsylvania should have been declared a disaster area. But you ask the governor that question and you ask other people, they'll hedge on you. They feel if President Carter interfered, and say, no, that will cause too many problems, don't do it. So the bottom line is how they feel down in Washington. I even read in the paper today that maybe this Commission here has even been put on the back burner by President Carter--whatever that means.

What I'm trying to say is the influence of President Carter and how he really feels, and then the NRC, their past

history, and their shoddy way that they licensed, there's no way that Met Ed should be open and how they monitor. And now they even say they are going to allow Met Ed to dump the 800,000 gallons of water, once it gets to a certain level, at their discretion. No, no. That can't be done.

I only bring this out to say, who speaks for me? Who speaks for the consumer? I think the cards are stacked against us. However, we're optimistic. I'm an optimistic guy by nature. It's David versus Goliath, we look at it. We're David; they're Goliath. But however, one thing was significant--David did kill Goliath. I hate to use the word kill, and I hope that is not taken out of context.

So, hopefully, I hope that we can offer some solutions. At the same time you get emotional and you rant and rave. Right now if something happened at Three Mile Island and you heard a whistle, would you know what the signal is for nuclear evacuation? Is it one? Is it two? Nobody knows. I think we should practice that. I think this influenced Governor Thornburgh's decision to evacuate. I think there's a coverup in that evacuation. I think we probably should have evacuated, but everybody said we're not prepared and we're going to have panic.

Our Committee feels, and we mentioned this to Congressman Goodling, that there should be a mandated practice evacuation once a year around every nuclear facility, and they should practice that, whether it's a 5 or 10-mile radius,

we don't know what the cut-off would be.

Amend the Price-Anderson Act, make it a law, but this should be done immediately. Within three months we ought to have a practice evacuation here in this area. Now, why not? I'm an educator. We do this four times a year. The police come in and time it. Why? Because the safety of your young people are at stake. I think the same thing should carry over to the people.

Also, you are going to hear a lot about repealing the Price-Anderson Act. You know, we almost lost Pennsylvania. I left my house with my family and just I think that was it. We didn't both to take anything. What would a good insurance policy be on TMI--\$15 billion?

CHAIRMAN KEMENY: Excuse me. Could I ask you just to conclude your remarks in fairness to all the other people who want to be heard?

MR. MINNICH: Okay. I'll conclude. So with our committee, the Newberry Steering Committee, we're working hard and trying to work the system, and we know this is a complicated problem. You know, however, we are ready for the worst. If the costs are passed on to us, I think Pennsylvania is going to hear an outcry from the public that they have never heard before. I think the spirit of the Boston tea party is going to be reincarnated and I think that might be good for democracy, and I hope this doesn't happen.

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If TMI-1 is allowed to open, you're going to see such demonstrations and civil disobedience that you've never seen before. And a strong statement from me for the safety of my children and other children, I would participate in civil disobedience to keep TMI-1 from opening, knowing that would probably cost me my job.

And you might say TMI, we call it the middle-class impact. And we want to have our first amendment, the pursuit of happiness. We feel that TMI-1 does not allow us to do that.

Hopefully, getting philosophical again, that we can believe this is the kind of country--of the people, by the people and for the people.

That's the end of my testimony. My gut feeling is I didn't do a real good job communicating feelings to you, but these are my honest evaluations.

CHAIRMAN KEMENY: Thank you. Questions from Commissioners? (pause) I want to say it certainly helped me. It is one of the reasons we are here is to get a very strong impression on what the feelings and emotions are in this area which is one of the key things we do have to find out in order to appreciate the impact of this kind of accident. I thank you very much for testifying before the Commission.

MR. MINNICH: Thank you.

(Applause)

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MS. JORGENSEN: Our next witness is Dr. Judith Johnsrud from the Environmental Coalition on Nuclear Power.

DR. JUDITH H. JOHNSRUD, Co-DIRECTOR, ENVIRONMENTAL COALITION ON NUCLEAR POWER: Mr. Chairman and Members of the Presidential Commission: It is not a pleasure to be here today. It is a matter of very deep personal pain for me, as I'm sure it is for other residents of the Harrisburg/Middletown/Goldsboro area.

My name is Judith Johnsrud. I reside in State College, Pennsylvania. I hold a doctorate in the field of Geography and have specialized in the study of the environmental, political, and social aspects of the nuclear power industry for a good dozen years. I have also been a participant observer in a number of nuclear proposals in Pennsylvania over the last dozen years, and the testimony which I believe you have before you will outline some of those projects that have been proposed for our Commonwealth that have also been rejected by the citizens of Pennsylvania as being unsound, unwise, unsafe.

The breeder reactor was proposed in our state, underground nuclear explosions, uranium mining and milling, energy parks, 20,000 megawatts, half nuclear, and indeed, radioactive waste disposal, commercial low-level waste.

All of these projects over the last dozen years have been rejected strongly through legitimate political processes and by legal action where necessary by the citizens of this

Commonwealth. But at the same time, there have been many projects of the nuclear energy that were beyond the control of the public. That is to say, the commitments had been made before members of the public were really aware and able to respond within the legally provided framework of administrative procedure.

Here I refer to a number of those projects which we in the Environmental Coalition on Nuclear Power, of which I am co-director, have participated over, again, much of the last decade. In licensing proceedings for a full dozen reactors, we have attempted to improve the safety of nuclear energy if we were required to have it in our state.

I've outlined for you some of the areas in which we believe we have had some impact on reactor safety. The siting of reactors, water availability, cooling tower needs for the protection of inland waterways, the use of the "as low as reasonably achievable" standards, safety related health related equipment to be added to reactors, and perhaps most importantly, the establishment in the licensing proceedings for Three Mile Island Unit 2 of the fact that the Nuclear Regulatory Commission has failed to account for the largest single long-term source of radioactivity in the entire nuclear fuel cycle.

This is, as I'm sure many of you are aware, the problem associated with radon-222 from uranium mines and mill tailings. This issue, in fact, was first raised in the licensing

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proceedings for Three Mile Island Unit 2 by my colleague, Dr. Chauncey Kepford.

Before I proceed, Mr. Chairman, I would like to mention that Dr. Kepford was to have testified today as well. As the legal representative of the interveners in the on-going licensing proceedings for Three Mile Island Unit 2 and as a radiation chemist who has undertaken independent study in the time period since the accident of matters relating to radiation monitoring, dose rates, dose commitments, Dr. Kepford has asked that his testimony be taken under oath when that procedure is available to you. And I hope that it will, indeed. We strongly ask that he be rescheduled to appear at the appropriate time.

It is extremely painful for me as one who has been engaging in public education with respect to the variety of hazards associated with the complete nuclear fuel cycle for so many years, to have to say to you and much worse, to the people of Middletown, we failed to prevent this unsafe reactor from coming on line. I share with those who live here the experience of having been within the community at the time of large release from the plant. I share with them the uncertainty, having no way of detecting the degree to which I, myself, along with the residents, may have suffered an inhalation dose, a dose that would not appear in subsequent testing. I wish there were a way that we in central Pennsylvania could convey to you, and equally importantly, to the citizens of the entire nation

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the terror that permeated our lives through those on-going days of worsening accident, insufficient information, and uncertainty about the best course of action to protect ourselves and our families.

There are four points out of the many hundreds that I wish we had time to address today that I would like to raise briefly with you, if you will turn to pages 6 and following of the prepared statement.

1. First in order is what we in the Environmental Coalition on Nuclear Power view to be the on-going nature of the accident. The Three Mile Island accident is far from over. In fact, as we face the prospect of the accumulating amounts of water within the containment building, the lack of adequate cleanup systems for the treatment of that water, uncertainty concerning its disposition altogether, and all of us fear the continued potentiality for accidental, unplanned, and uncontrollable release such as we have experienced with air venting. We must recognize that the accident is most seriously still in progress.

For this reason, the Environmental Coalition on Nuclear Power is announcing today that we have filed with the Nuclear Regulatory Commission a supplementary petition to require that public hearings into the procedures planned in this experimental phase of reactor control be subjected to public evidentiary and adversary hearings through the Nuclear

Regulatory Commission. We have also asked, in the absence of adequate radiation monitoring during the month and a half plus since the accident, that a far more extensive array of radiation monitoring devices be installed within a full 40-mile radius of the plant and that the public be apprised of the full doses, dose commitments, to which they are perhaps continuing to be exposed, and in the uncertainties of the handling of further radioactive materials from the plant have every right to feel they may be exposed.

In addition, in these hearings we are asking for what we consider to be the fundamental need at this point: the withdrawal of the operating license for Three Mile Island Unit 2 and we will follow this subsequently with a request for the permanent withdrawal of operating license for Unit 1 as well. We believe firmly that Metropolitan Edison Company and its parent company have demonstrated their inability to operate a nuclear power reactor safely.

I would be glad to make available to the Commission, in fact, I have submitted for your record and for your perusal a copy of this petition filed with the NRC.

2. Secondly, I want to address the question of the failure of response to protect the public and to notify the public during the on-going period of the accident. First, of the need for evacuation. As the accident proceeded and it became evident that conditions were deteriorating, it seemed to

us, particularly after the days of cross examination of Mr. Molloy and of Mr. Williamson, the county and state officials responsible for evacuation and emergency planning, it seemed to us that it was indeed time to move people. As you well recall, it seemed that way also to the NRC.

They were not moved for reasons that continue to puzzle us and which I hope you will investigate most thoroughly. We were told by Mr. Ahern of the Commission that the fear was that more people might be injured or killed in the process of a panic evacuation than if they were simply left there, no matter what might happen to the reactor.

Now, had a proper precautionary evacuation been begun at the initiation of the accident, I believe no panic would have ensued among the American people, certainly among the people of this area. They would have been given, instead, confidence that their various levels of government were acting to protect them in the best ways possible.

A second realm of this issue that particularly troubles me is the lack of notification to those who lived beyond the lethal zone, but in those areas downwind in the eastern United States where we could rightly have anticipated substantial radiation doses with the passage of the initial plumb.

Now, those I know in Philadelphia, in New York City, and Scranton, Wilkes-Barre, Easton, Bethlehem, even Washington,

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D.C., any of those metropolitan areas where indeed that stagnant mass of air might have moved when it finally began to pick up speed, those people said, we were told there was no immediate danger and no immediate damage. By so informing the public, I believe deeply that our agencies of government have failed to protect properly. There were measures that could be taken. They were simple, they did not require evacuation for the mass of people of the Eastern Seaboard. But had the public been notified of their ability to minimize the radiation exposure and thereby to minimize the additional risk of subsequent development of cancer--leukemia--we believe that the public would have been far better served and, indeed, the magnitude of the potential damage might now be fully understood by the American people as I believe it is still not.

I found myself astonished to refer back to the 1964-1965 revision of the infamous Brookhaven Report, WASH-740-- and I have submitted certain selected documents from that 1964-65 revision for your benefit--to find in those documents the indication that a thousand megawatt reactor a thousand days of operation with a small hole in the containment would cause prompt fatality as far as ninety miles downwind, that substantial iodine doses to the thyroid would be experienced at distances beyond 600 miles. The public was not informed in the Eastern Seaboard of their hazard.

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3. A third issue that I have raised here, which I won't go into in any great detail, has to do with who pays the cleanup costs. We firmly believe it should not be the rate payers of Metropolitan Edison. These people are, certainly in this part of Pennsylvania, suffering far more than any person in our society has a right ever to have to suffer.

We do, however, believe that the repeal of the Price-Anderson Act is a move that must be recommended and strongly backed by the administration and passed by the Congress.

4. With respect to NRC's procedures, my fourth point, the rules of practice and the procedures for siting and licensing nuclear power plants have been wretchedly bad. We who have attempted to protect the public by participation in these proceedings over many years have been forced in the past few years into a position of supporting the existing licensing proceedings which are, I must say from my participation in a dozen license cases, totally unfair to the public, in no way deal in any depth whatsoever with the fundamental issues of safety, of environmental impacts, of health effects, of quality assurance, quality control, or any other aspect of nuclear regulation which we, as the public, should have the right to expect from the Nuclear Regulatory Commission.

I must say that my conclusion has to be at this stage that there is no justification whatsoever in our society



for further licensing of any additional nuclear power plants. Perhaps we could simply abolish the NRC's licensing function. We have more than enough reactors placing us at risk at the present time.

From the terror and trauma that have been experienced and are still being experienced by the residents of the Susquehanna Valley and all of central Pennsylvania, I must conclude that nuclear power plants are not safe enough to be operated, that no alleged need for electricity can in our wealthy society at this time possibly justify subjecting the American people to the kind of experience that we have had in Pennsylvania in the past seven weeks.

And beyond that, I must add from my view as a geographer, we are tending in our concern with reactor safety at the present time perhaps to overlook that very most fundamental problem of nuclear energy, and that is the on-going and desperately rapidly increasing need for safe disposal of the radioactive waste that we have already generated. When we review radioactive waste as a production problem of nuclear power plants, I think we can see that in the absence of the fundamental research and demonstration needed to precede the disposal of radioactive waste, we are acting foolishly in the extreme to permit the continued additional accumulation of such waste.

I haven't conveyed, I'm afraid, the sense of internal

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turmoil and anguish, pain and very real damage that I see in the eyes of my many friends and associates throughout this part of Pennsylvania. I hope that they will be able to do a better job of doing so before you. I ask you to open yourselves to what they have to say.

I will be happy to answer questions, and thank you for your attention.

CHAIRMAN KEMENY: Could I just ask a simple question of fact? There was one point early in your testimony; I simply couldn't hear you on one thing. I heard the request that Dr. Kepford be called as a witness under oath. I didn't hear your statement on what subject he wished to testify specifically.

DR. JOHNSRUD: Yes. Mr. Chairman, Dr. Kepford has undertaken independent monitoring in the vicinity of the plant and distances quite substantially beyond the NRC's monitoring zone during the course of the accident. And he has found on more than one occasion that the levels of radioactivity, the dose rates at distances very far beyond the monitoring by the NRC where it is substantially higher than background levels and very much higher than the levels actually experienced at the plant site.

This has said to him that the location of the monitoring devices has been inadequate to detect the actual places where the plumes have touched to ground and where the doses have been experienced. In the most extreme instance, on the

afternoon following the Easter Sunday release of iodine, Dr. Kepford found 30 miles northwest of the plant upwind dose rates that were on the order of 50 times the natural background level, and this was upwind, a most peculiar situation. At the same time he found normal background radiation in the vicinity of the plant itself.

He has undertaken, from the published data, a review of the dose calculations, the dose estimates, particularly from the ad hoc group report that was released this past week, and has information at variance with some of what is becoming the conventional wisdom from the published reports that he would like to present to you.

CHAIRMAN KEMENY: Thank you. I think I can speak for the Commission that we will most certainly want to take testimony from Dr. Kepford under oath under the circumstances.

DR. JOHNSRUD: Thank you.

CHAIRMAN KEMENY: Thank you. Professor Marrett.

COMMISSIONER MARRETT: I would just like a little more information on the Environmental Coalition. I understand from your statement that this is a Pennsylvania based group. Does that mean that it is principally one in this locality? Approximately how many members do you have? Just a little description of your organization.

DR. JOHNSRUD: Surely. The Environmental Coalition on Nuclear Power came together in 1970 following the development

and, we feel, successful opposition to both the Plowshare Program to explode over a thousand nuclear bombs underground here in Pennsylvania back in 1968, and in 1969 and '70 the proposal for siting the liquid metal fast breeder reactor in the northeastern part of the state.

In 1970 the utilities--Philadelphia Electric, Metropolitan Edison, in particular, and of course, Penn Elec (Pennsylvania Electric Company)--were combining to construct a number of nuclear power plants in both the Susquehanna and Delaware valleys. And the small local citizens groups simply banded together to form the statewide coalition in November of 1970.

We are public interest. We are very loosely organized and loosely functioning, trying on the whole to provide documentary evidence. We carry the government reports around to people who are curious, eager for information. And to attempt to coordinate the efforts of citizen groups in Pennsylvania. We have had over the years something on the order of 35 member groups. It fluctuates, of course, as little grassroot citizen groups come and go, depending upon the backyard urgency of a problem. But these groups include a number of well established environmental organizations, chapters of Audubon Societies, for example. And hence, the numbers represented, we feel, are on the order of 10,000 altogether.

But, of course, the core of each of these groups

would be the small group of people who are particularly concerned about the nuclear issue. Some of the groups are interested in other environmental issues as well.

So we have attempted to provide a coordinating function and a function of information provision, a bridge to the state government. I am serving and have been serving since 1975 on the Governor's Energy Council Advisory Committee. We have a member on the PUC Advisory Committee, and have participated in task forces on energy policy in Pennsylvania, trying to act in the legitimate political and legal realms.

COMMISSIONER MARRETT: I suppose I'm particularly interested in the local groups. Are there quite a few which are involved with the coalition; that is, from this immediate area?

DR. JOHNSRUD: It's a curious thing, you know. The Three Mile Island Alert group here in Harrisburg had organized back about two or three years ago and had been in contact with us and had looked to us for information. We had provided speakers for their programs. We were already deeply involved in licensing proceedings, having been required to file clear back in 1974 for the Three Mile Island Unit 2 proceedings that didn't get underway until '77.

In the 1977 evidentiary hearings, however, curiously there was very little interest here in the Harrisburg area in those proceedings. Session after session, Dr. Kepford and I,

who conducted the proceedings in the absence of our financial ability to hire an attorney, sat in that room with the brace of attorneys from the utility, from the NRC, from the state, all favoring the plan and no one at our backs. We had no money for expert witnesses. There wasn't support. We did the best we could, certainly; it wasn't good enough.

But since the accident, of course, now the people of this part of Pennsylvania and elsewhere in the state understand the things that many of us had been trying to teach for a long time. We have internalized nuclear energy.

CHAIRMAN KEMENY: Commissioner McPherson.

COMMISSIONER McPHERSON: Dr. Johnsrud, you say in your testimony that if the authorities had ordered an evacuation at once as a precautionary measure that you believe that public confidence in the authorities would have outweighed any tendency to panic. Does that mean that you think an evacuation should have been ordered at once?

DR. JOHNSRUD: I certainly do.

COMMISSIONER McPHERSON: That "at once" means on Wednesday?

DR. JOHNSRUD: It means on Wednesday, yes, Sir.

COMMISSIONER McPHERSON: And that would have been for a 5-mile or a 10-mile area?

DR. JOHNSRUD: Had we begun the evacuation procedures -- Oh, by the way, I may have mentioned in the testimony,

I was not allowed to cross examine the witnesses from the Commonwealth or the county on evacuation beyond the 4.8 mile radius that was set in the utility's design basis accident. Under the NRC's rules and regulations, that is prohibited, no matter how far evacuation might actually be needed and no matter what the responsibilities of the county and state officials might be.

But certainly they had assured us under oath that they were well prepared to proceed, three to four minutes is all it would take, Mr. Molloy says under oath, to have his people ready to go. Now, by noon on Wednesday the close in area could have been pretty well evacuated. I would surmise that within the following hours and days as the condition of the reactor worsened, that there would then have been the appropriate mechanisms and ability to proceed outward in an orderly manner with people leaving.

As we all know, as it worked out, people had to take the initiative of doing so themselves, which places an enormously unfair disadvantage to those who are poor, lack automobiles, had nowhere to go, couldn't afford \$20-\$25 a night for a motel a hundred miles away, as many people were doing, were infirmed, were unable to move. They were the people who were caught in this area and could not leave even if they wanted to.

Certainly we had tried to get evacuation information

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out. One of our contentions in the licensing proceeding had been that a real live drill or drill procedures should have been tested with the population in the vicinity of this plant before it was ever allowed to operate. And every witness--for the NRC, for the utility, and the Commonwealth--protested mightily that people would only be confused and alienated if they were forced to take part in an evacuation practice.

COMMISSIONER McPHERSON: May I ask you one last question? When do you think it would have been safe, had an evacuation been ordered on Wednesday, when would it have been safe to permit people to return to this area?

DR. JOHNSRUD: Given our problem with accumulating water in the containment structure, there are many who might question if it is safe now. However, I would say at the very minimum, in view of the uncertainties concerning the effectiveness of the shift to convective cooling on April 27, in view the experimental nature of the procedure once they made that shift--the NRC was uncertain whether they could go back to cooling pumps, what a high pressure injection system would do--given the uncertainty of the condition of that core and the effect of suddenly increasing the flow rate again, if it were necessary to restart the pumps, we had, with another nuclear engineer, Dr. Kepford had done some calculations, had investigated the possibilities for temperature rises sufficient to put them back in a situation of zirconium burn, and felt that at



the time that they moved to convective cooling those uncertainties of the effectiveness of convective cooling to remove adequate decay heat were such that we were back in a very high hazard period.

As a matter of fact, Dr. Kepford's initial petition to which the one I've submitted to you today is a supplement was submitted to the NRC after a day of consultation with Roger Mattson and others, submitted within an hour of that forced move to convective cooling. That was a period of very high hazard. I was very frankly --

COMMISSIONER McPHERSON: That was on what day?

DR. JOHNSRUD: That was on April 27.

COMMISSIONER McPHERSON: About a month afterwards?

DR. JOHNSRUD: Yes, almost to the day.

COMMISSIONER McPHERSON: So you think that probably people should have been evacuated, ordered evacuated and ordered to remain away for that month?

DR. JOHNSRUD: I would say as a conservative measure, in view of the kind of hazard associated with that shift to convective cooling.

Now, of course, I recognize that that would represent a very great economic detriment to this area and to the recipient areas. But I think that we have tended to put a bit out of joint the relationship between economic detriment and detriment to human health and genetic health. I, for one, feel

certain hat we have not received a full dose assessment that includes the inhalation doses that integrates appropriately over the full period of the accident to date still on-going.

I feel certain that, just as with the atomic bomb testing situation, we are going to find some years down the line that the optimistic one or two or ten cancer deaths was an unjustified position for the government to have taken at this time.

COMMISSIONER McPHERSON: Thank you.

CHAIRMAN KEMENY: Any questions? (Pause) Thank you very much for your testimony.

DR. JOHNSRUD: Thank you.

(Applause)

MS. JORGENSON: Our next witness this morning is Mr. Edward First.

EDWARD FIRST, CAPITAL AREA TASK FORCE "FORWARD":  
Good morning. My name is Edward First. I'm a Harrisburg attorney and a past president of the Harrisburg Area Chamber of Commerce, past president of the Harrisburg Area Industrial Development Corporation, and chairman of the Steering Committee of the Capital Area Forward Task Force, which I'll explain at bit more briefly.

The gentleman on my left is Mr. Joe Krajca, a local publisher and he is also a member of our Steering Committee for the Capital Area Task Force Forward.

We didn't ask to come before your fine Commission this morning; we were urged to be here and of course we responded to that invitation and are glad to make any small contribution we may make. We're not really concerned with nuclear energy pro or con, the reason for TMI, how or why it happened, whether it should be soon reactivated and reopened or never reopened. Our concern is chiefly related to the economic and psychological fallout that we know is present with respect to the greater capital city area.

As a group of concerned citizens, we've tried to put together a program that, by affirm and positive steps, will effectively overcome what the doom sayers tell us may very well make this a nuclear leper colony for a long, long time.

I don't know, very frankly, if your Commission is concerned with the responsibility and the objectives that we have in mind, but we were asked to be here, so let me make a brief statement, and if you can help us, God bless you. I'll try to be brief. I'll try to confine it to the ten minutes that we were asked to observe. I think I will be more successful in that regard if I stick to the script, than if as an attorney I get off and inclined to ramble.

Within five days after the March 28th "accident" at TMI a small group of concerned citizens from the Greater Capital City Area met to assess what the news media were then painting in broad strokes as the worst nuclear accident in history, at

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a time when a mass evacuation was seriously spoken of and when there was even a conviction by many, including so-called experts, that we would have a core meltdown that could lead to a loss of lives in this area where you are today of anywhere from 10,000 to 30,000 persons as well as serious health impairments for about 100,000 persons over the next 30 years. These were the extremes that we were told.

And so the Capital Area Forward Task Force was created. The group consists of 130 leaders--and I use the word leaders loosely; they are representative and responsible folks from every level of our private, governmental and cultural communities, and also consists of investors who believe that the Greater Harrisburg Area is not only strong, but it has a healthy heartbeat and can accelerate its growth through community and government leadership.

But even as late as May 14 in that May 14 issue of Time Magazine, millions of readers of that publication read that "Secretary of Health, Education and Welfare, Joseph A. Califano, Jr., had backed away from his original estimate that the Harrisburg nightmare would cause no cancer deaths among the 2,000,000 people living within a 50-mile radius of Three Mile Island. Appearing before Ohio Senator John Glenn's Nuclear Proliferation and Energy Subcommittee, Califano predicted at least one death and acknowledged that some scientific investigators were estimating up to ten deaths. The revision

was necessary because it turns out that the initial levels of radiation released in the accident were higher than thought at the time" (underscoring added) and so today there are federal committees and studies such as your own functioning at the executive level, numerous congressional studies and investigations, an official Pennsylvania Commission on Three Mile Island soon to get underway next week, local Chamber of Commerce seminars and studies, county and other forms of local government studies and a myriad of other private groups assessing the impact of the accident pro and con. I'm sure you've had a great deal of duplication and a great deal of reiteration in the things you've heard, and I hope we may bring you, if nothing else, a different viewpoint about this matter from what I've heard here this morning as repetitious.

It may be that the proliferation of activity in this area would sensibly indicate that the volunteer, ad hoc task force for which I speak is unnecessary and should be disbanded at an early date. If that be the case, we shall be realistic enough to take that step, although it is at the moment a bit too soon to tell, even though the Pennsylvania Secretary of Commerce, James F. Bodine, stated within the last week that based on a telephone survey which had been made by experienced professionals, "it now appears the travel industry will not continue to suffer the stigma of TMI and bear the brunt of the economic impact."

By the same token, no one yet seems to know whether or not there will be any significant adverse agricultural side effects although there are reports from our Department of Agriculture and the Department of Environmental Resources that there will not be, and we pray they are correct.

Some conventions have been cancelled and some that were cancelled have been rescheduled. Sales of real estate were slightly depressed in the first 15 days after March 28, but transfers of real property now seem to be proceeding at a normal rate.

While we do not know today what the actual economic fallout may be, we know that there is enough strong speculation about economic fallout that it seems to be wise to observe the old adage that "a stitch in time saves nine" and so if our task force is able to be instrumental in moving forward a number of badly needed and long-planned area projects, this will completely offset the psychological fallout and the real uncertainties that continue to exist about what the negative implications of TMI might be to the Greater Capital City Area over the next few years.

The Capital Area "Forward" Task Force recently developed and submitted to the Governor and Lt. Governor of Pennsylvania, because the Lt. Governor is to chair a special committee and will have many of the same objectives we have, a position paper indicating its aims and objectives. That has

been attached to what we have given you today. I'm not going to read that whole thing through. You can read it if you see fit.

Nothing could be more appropriate as a part of this statement than to quote from a portion of that paper (dated May 2) and I will quote from only a portion:

The Task Force is also presently seeking an appointment, urgently and realistically seeking an appointment with the President because his presence here during the peak of the emergency made it clear that he has a strong personal interest in helping to dispel any notion that what happened at TMI should make this Greater Capital City Area a nuclear leper colony. A copy of the position paper that has been delivered to one of the President's aides is also attached to that which we gave you today.

As time goes by and as many of the hundreds of the news reporters who covered the TMI accident return here to assess its impact a year from now, and TV special programs are already being arranged that will be released March 28, 1980, we have to present--we, I believe that the community, concerned persons--have to start now to be prepared then to present unmistakable evidence that the people of this region have gotten together to move forward -- that's the reason for the word "forward" in the denomination of the task force -- to move forward together with local, state and federal governments

as well as the private sector, all expressing a confidence in this area.

The private sector has already manifested its confidence by proceeding after the TMI accident with Appleton Paper Company's, a \$30 million plant expansion, very close to Harrisburg. IBM is planning major new facilities. Marriott Hotel will break ground next week for a \$15 million plant. The local newspaper, The Patriot and Evening News, is about to expand physically its plant to almost double its size.

These projects manifest the confidence of the private sector in the future of the area. There are, however, concrete and visible means by which the state government can, and we think must, contribute substantially to this attitude of confidence and progress.

When the reporters return to central Pennsylvania, will they again be jarred first by the inadequate and decrepit gateways to our region in the form of the Harrisburg International Airport which lies nearby, and the Amtrak Terminal in Harrisburg? Or will they observe that real progress has been made in turning these facilities into community assets, restored, renewed, modern, efficient, and comfortable?

These are but two examples of solid forward motion for the Harrisburg area where state government can be very effective in the movement. The state government should solidly support the continued revitalization of downtown



Harrisburg, the core of the area. This it can do by understanding and supporting the continued progress of what we refer to as Harristown.

In the near future the state will be faced with a decision concerning the establishment of a Judicial Center for the Pennsylvania Supreme Court and it is going to be Philadelphia or Harrisburg. We believe it needs to be in Harrisburg because this is where state government is and it can be more efficiently and economically operated if it is located in Harrisburg.

Our South Bridge and its approaches have long been recognized as one of the most dangerous stretches of highway in the East. Acceleration of the remodeling and reconstruction of that bridge and its approaches will save lives and will demonstrate that the state government believes in the capital city area.

The Department of Defense, prior to the TMI accident, announced sharp cutbacks in its programs at the defense facilities at Indiantown Gap and New Cumberland. These cutbacks will have a serious economic impact on the Harrisburg area at the very time we're fighting what I've explained to you we are fighting. State government should get solidly behind efforts presently being made by the Pennsylvania Congressional Delegation which has asked the President to put a moratorium on any cutback in the facilities at either of these installations.

A major flood control project has long been of great importance in the Susquehanna River here. State government and the federal government can put real muscle behind efforts to make this flood control project go from the drawing boards to reality.

Our Cameron Street corridor, now a major access artery to the city, can be greatly improved by the completion of the long-planned widening of that street.

Needed improvements in neighborhood housing and development in Harrisburg and other communities can be accelerated substantially if the state government will arrange its priorities so that solid progress can be made in this area.

The state government soon must face squarely the need for new and vastly more efficient exposition facilities to replace the obsolete and undesirable facilities at our State Farm Show complex. In the light of the energy and transportation constraints which will inevitably confront us in the future, these facilities should be located in easy proximity to public transportation, namely, the intermodal transportation center in downtown Harrisburg.

Imagine the reaction of the doomsayers of recent days if they return a year from now and they find, not a wasteland which they seem to be forecasting, but a total community mobilized into action, going forward with confidence and enthusiasm to make Pennsylvania's capital city and this area

the vibrant and vital center of state government it can and should be and one of which we will all be proud.

Thank you for listening. If there are any questions, Mr. Krajca or I will try to respond.

CHAIRMAN KEMENY: May I ask you one question? Have you thought in what way a Commission like this could be helpful in your goals?

MR. FIRST: I thought you might ask that question because I was puzzled when I was asked to come here about how our concerns and responsibilities might, vis-a-vis your Commission, be something that you could -- I would guess ensure a Presidential Commission that if you find sympathy and logic and reason in what we have advocated a note in your final report that because there is a real psychological concern about this area, that the federal government should show a sympathetic if not a priority ear to some of the programs like flood control and the military installations nearby and some recognition or observance from you -- it might not need to go so far as a strong recommendation -- could certainly help us with some of the assist that we are looking for from the federal government.

I guess the same thing might go for the state government. But we think we're right here in Harrisburg at the capital and we think we can roll up our sleeves and pretty well get from the governor, if I may be blunt, what we need. But you

could certainly be helpful, I believe, if you could make some discreet recognition of how a federal assist could help to move the clouds away.

CHAIRMAN KEMENY: Any other questions? Professor Marrett?

COMMISSIONER MARRETT: One of the things that we have to do is get some indication of changes in the community. Now, I gather from your comments, and I need some clarification, that you have been monitoring economic changes. You mention, for example, real estate sales. I'm wondering if this has been done on a fairly systematic basis so that we could get information with reference to a variety of economic indicators. I guess I'm not referring simply to projects that might be planned in the future, but is there any indication of the kinds of things we could look at to give us some sense of what has been going on economically?

MR. FIRST: Yes, that's a good question, and like all good questions, they're the tough questions. Both the Harrisburg and the West Shore Area Chamber of Commerce, which lie on each side of the banks of the Susquehanna River, are now undertaking the kind of economic survey to which you make reference. I'm sure if you asked them to submit a tabulation of their findings, they will be happy to do so. That is now underway.

Just in this morning's mail I got my copy of the form

from the West Shore Chamber of Commerce. The Harrisburg one has been done, and I believe the State Department of Commerce is conducting a survey, too.

From what I've learned, very frankly, from the results of the Harrisburg area Chamber survey so far, it's not very meaningful. Now, I don't know if that's because they don't have the experts to put together the right kind of questions but, frankly, what they've gotten back doesn't tell us too much. But, again, this is all on the threshold; more is to come.

I think our big concern is something else you referred to and that is a timidity about business and industry and that means jobs and cash flow for people. There's some reluctance. The further away you get, it's funny, the stronger that reluctance is to come into this capital city area. We don't find the timidity within 50 miles of here as much as we find it with a business that might be in Illinois or Arizona or Oregon that have some reason to come to this central Pennsylvania area but now they say, whoops, we'd better take another look at this; maybe we'd be better off in Atlanta.

CHAIRMAN KEMENY: Governor Babbitt.

COMMISSIONER BABBITT: That covers my question.

CHAIRMAN KEMENY: He just covered your question. Yes. Professor Taylor.

COMMISSIONER TAYLOR: Do you have any concerns now about the public health and safety aspects of the process of

dealing with the radioactive materials now in containment at the Three Mile Island reactor?

MR. FIRST: No. I don't mean to be blunt and say we have no concerns; we're not addressing ourselves, Sir, to that phase of the problem. There are many other groups that are digging deeply--the Hershey Medical Center, the Pennsylvania Department of Health--so we've got enough to do with economics and jobs that we really haven't decided to get into the health aspects of it. Not that they are not important, but we think others can do it better.

CHAIRMAN KEMENY: Professor Lewis.

COMMISSIONER LEWIS: Mr. First, tell me, if there is no way--this is an "if"--to make these plans 100 percent safe, could you estimate for me the economic impact of doing without the electricity from a nuclear power plant versus the economic fallout when you have a crisis like this? Do you think it's a fair trade-off? Are you willing to risk this kind of thing happening in order to have the benefits of the plant, in economic terms?

MR. FIRST: That's also a tough question. I guess you're saying to me if TMI should never reopen, and I know there is a large group of persons that think it should never reopen, not even the part of it which was unaffected, what is that going to do to the economy of the area? I guess it's not going to do anything to the economy of the area, because I'm

convinced that if it doesn't reopen we'll still have all the electrical power and energy we need here from other sources. We may pay more for it because it is going to be more expensive to substitute, and that additional cost I guess would be a negative factor if business and industry have to pay 15 or 25 percent more because it can't reopen. This would be another reason why people would select another location; maybe even a reason to move to another location. I hadn't thought about that, but it would seem to be a logical conclusion.

COMMISSIONER LEWIS: Do you feel--this is just asking an opinion question--that it's worth the risk in economic terms to keep this plant going?

MR. FIRST: Do I feel what, Ma'am? Excuse me. Do I feel it's worth --

COMMISSIONER LEWIS: The risk in economic terms to keep this plant in operation?

MR. FIRST: Now, I'm going to give you my personal opinion, and I can't speak -- I think we need to get it put back into shape subject to all the safeguards and precautions that your study is going to indicate need to be applied and get it back into operation, because I just don't think we can speak -- I speak for myself. I just don't think we can meet this country's energy needs without safe and sound, and I underscore safe and sound, nuclear energy.

COMMISSIONER LEWIS: Thank you.

MR. FIRST: I have many opponents when I say that, but you've asked me for my opinion, and you got it.

(Applause)

CHAIRMAN KEMENY: Any other questions? Thank you very much for your testimony.

MR. FIRST: Thank you very much.

(Applause)

MS. JORGENSEN: I'd now like to call Ken Miller, please, from the Hershey Medical Center.

KENNETH L. MILLER, M.S.; C.H.P., DIRECTOR, DIVISION OF HEALTH PHYSICS AND ASSISTANT PROFESSOR OF RADIOLOGY, HERSHEY MEDICAL CENTER, PENNSYLVANIA STATE UNIVERSITY:

MR. MILLER: Good morning, Ladies and Gentlemen. I am Ken Miller from the Milton S. Hershey Medical Center of the Pennsylvania State University. I am Director of the Division of Health Physics at the Medical Center and I am Assistant Professor of Radiology.

I was asked by the Commission to come here and to share with you the results of monitoring that we did following the March 28 shutdown of the Three Mile Island nuclear power plant. In particular, you asked that I address our radioiodine monitoring program. We have two aspects of that program.

To begin with, I would like to share with you the information that was obtained from the period April 5 through April 16 in which we did provide thyroid uptake counting for any citizens of the area requesting such a count to determine



if there was any detectable radioactive iodine in their thyroid glands.

Throughout that period we evaluated the thyroid glands of 111 individuals. The breakdown of the communities represented by these individuals are on the document which I provided for you.

In particular, the areas most frequently represented were Middletown (31), Eppers (30), Elizabethtown (13), York Haven (9), Harrisburg (9), Bainbridge (7), Hershey (6), Royaltown (2), Mount Wolf (2), Hummelstown (1), Dallastown (1).]

In each situation we did not detect any radioactive iodine in the thyroid glands of these individuals.

We did our own monitoring throughout this period of time because the information which we were receiving--and I'm referring now to environmental monitoring and radiation levels around our own facility--we did what monitoring that we were capable of because we did not have a good indication from any of the news reports as to the exact situation that was occurring with the Three Mile Island nuclear power plant. Therefore, we did our own environmental monitoring, our own environmental radiation determinations, and so on.

With one exception, and that exception being air samples which we pulled on Friday, March 30, we were unable to detect any radioactivity, any radioactive material, any radiation levels above the normal background levels in our area.

The air samples that we detected radioactivity in on Friday, March 30, were further evaluated and, to the best of our ability, we could not detect any radioactive iodine within the sample, in particular the radioisotope of iodine-131. The gamma ray energies that we did determine to be representative of the sample were more indicative of radioactive xenon gas, in particular those of xenon 133 and xenon 135. The samples were taken on Friday afternoon. They were repeated on Saturday. And the levels had dropped significantly by Saturday. Throughout the entire period, this was the only time in which we detected anything in the Hershey area and particularly in the area of the Hershey Medical Center.

In addition to the thyroid glands of the 111 residents of the area that we counted, we also counted the thyroid glands of three employees of an organization known as Ichthyological Associates from Goldsboro. They called requesting that we do count their thyroid glands because they were fearful that they had been exposed because on the day of March 28 they had been taking environmental samples on the river and on the banks of Three Mile Island on Wednesday, March 28. They were brought to the Hershey Medical Center; their thyroid glands were counted, and as with all the rest, we saw absolutely no indication of radioactive iodine in their thyroid glands.

One further bit of information which I would like to share with you was the fact that our departmental secretary

from the Department of Radiology, by the way, did not evacuate the area, did not leave the area throughout the entire time and who lives in Middletown, Pennsylvania approximately two miles from the Three Mile Island nuclear power plant. She was provided with a radiation detector known as a pocket dosimeter on Friday following the initial incident at Three Mile Island. This was kept in her home for the next ten days. The amount of change that we saw in the pocket dosimeter was six milliroentgens, and as far as I'm concerned, this does not imply any type of radiation exposure from the Three Mile Island nuclear power plant, but would be more consistent with the normal drift rate that we see with time with this type of radiation detector.

That is really all I have to report. I would be happy to answer any questions that you might have.

CHAIRMAN KEMENY: Dr. Marks.

COMMISSIONER MARKS: Thank you very much, Dr. Miller. I wonder if I can ask you several questions. What did you do with this information? Today we've heard a fair amount about the lack of information about what was going on. You have here rather pertinent measurements during the time of the Three Mile Island incident and for the period thereafter. What did you do with this information in terms of public health and safety?

MR. MILLER: Other than presenting it to this

Commission, I have not presented it formally to any other group. However, this information was collected and was used to provide assurance to the faculty, the staff, the patients, and so on, at the Milton S. Hershey Medical Center. This information was also made readily available to the areas of the community, and particularly the Hershey area.

On a week following the incident at Three Mile Island I did publish in the local Hummelstown Sun a letter addressed to my friends in areas of this --

CHAIRMAN KEMENY: I'm sorry. I think we couldn't hear where it was published.

MR. MILLER: In the Hummelstown Sun, at letter explaining to the best of my ability the situation as I saw it in this area. I would be happy to share with you a copy of that letter.

COMMISSIONER MARKS: We would appreciate that. Do you have any official designated role in the evacuation or disaster reaction plan for the area?

MR. MILLER: For the area, no. The only involvement that we really have is that the Hershey Medical Center does maintain a medical radiation emergency plan. We have a formal agreement with the Metropolitan Edison Company that we will, in the event of an accident, receive and provide treatment for radiation accident victims from the plant.

COMMISSIONER MARKS: Was that activated in this instance?

Were you alerted to the possibility that you might receive any casualties?

MR. MILLER: No, Sir, we were not. At no time were we contacted and asked to prepare for this, although we were prepared should the need arrive.

COMMISSIONER MARKS: I'm sorry; I can't hear you.

MR. MILLER: At no time were we called and asked to put our medical radiation emergency plan into effect. And at no time did we receive a radiation accident victim or any indication that there had been a radiation accident victim at the Three Mile Island nuclear power plant.

COMMISSIONER MARKS: Are you the nearest large hospital to Three Mile Island?

MR. MILLER: We are approximately, as the crow flies, about 3-1/2 miles from the Three Mile Island nuclear power plant. I don't know how close the other hospitals are. However, I think that we are probably the best equipped from a personnel standpoint and from a monitoring standpoint, and a radiation detection standpoint, we are probably the best equipped within a 50 to 75 mile radius.

COMMISSIONER MARKS: One last point. What consideration was given and what decisions were made at the Hershey Medical Center with regard to evacuation? You are within the 10-mile zone, I understand. Were you involved in any discussions with regard to the evacuation of the Medical Center itself,

and to your knowledge was there any evacuation in the Medical Center?

MR. MILLER: I was involved in discussions regarding what steps would be taken in the event of evacuation. This discussion occurred at approximately noon on the Saturday following the initial incident at Three Mile Island--this, I guess, would be the 31st of March--at which time a Dr. Washington who is as far as I know the Assistant Secretary of Health for the Commonwealth of Pennsylvania, and at one time Acting Secretary of Health for the Commonwealth, did come to the Hershey Medical Center and discuss with not only myself but our emergency room physicians, our hospital administration, and so on, steps that would be taken in the event that an evacuation were ordered.

COMMISSIONER MARKS: What decisions were taken? In other words, was anybody evacuated from the Medical Center? Did anybody evacuate voluntarily? What recommendations did you make to Dr. Washington as a result of your discussions on Saturday?

MR. MILLER: Dr. Washington seemed at the time to have information which I certainly did not have access to at the time, and his outlook certainly was grim. At the time he seemed to have information which would indicate that the situation would definitely get considerably worse. At that point in time we recommended to Dr. Washington that if this were in fact

the true situation and his source of information were true and factual, that we would recommend immediately a very orderly and complete evacuation of the entire area. Because he was talking at that time about potential evacuations of areas out to 20 miles. The Hershey Medical Center is 3-1/2 miles from Three Mile Island.

We told him quite frankly that in the event this type of situation did arise, we also lived within the 20 mile radius and those of us would be very concerned about getting our own families out of the area.

As far as evacuation from the Medical Center, there never was an evacuation. However, I think that we did decrease our patient census to the fullest extent possible so that in the event that an evacuation was called for, we would have a minimal number of patients to evacuate from the Medical Center.

COMMISSIONER MARKS: So in other words you began to implement a series of actions which would be part of a process that could eventuate in evacuation? Did you actually transfer patients or did you limit admissions?

MR. MILLER: Both.

COMMISSIONER MARKS: Both.

MR. MILLER: Patients were transferred. I think that some of our neo-natal patients who were in critical care or who needed very close attention were transferred to the Philadelphia Children's Hospital. Others not in as great a need

of this critical type care were transferred to other hospitals. Patients who could be discharged at that time were discharged. I think that we stopped admitting patients, at least for a very short period of time, until we were fully aware of what the situation was.

The answer to your question is I think we transferred as many patients as we could. Our census dropped from somewhere in the neighborhood of 300 patients to slightly over 100 patients by the weekend. Yes.

COMMISSIONER MARKS: Would it be possible for us to get some kind of report on the events as it involved the Medical Center?

MR. MILLER: Yes, Sir. I think the individual that you would want to call to testify would be Dr. Arnold Muller, who is Director of Emergency Care Department. He is also extremely active as an emergency care physician for the area. Yes, I think that he could provide you with very good insight as to this. I think that this type of question is just slightly out of my line. I'm not a physician; I am a health physicist.

COMMISSIONER MARKS: Thank you very much.

MR. MILLER: One other thing that I might add is as a result of this discussion with Dr. Washington, we did discuss with him the various steps that would be taken in the event that there was a serious situation resulting in wide-scale contamination of the area. We made very specific recommendations



to him for implementation throughout the area. At the Medical Center we lined up supplies and equipment and decontamination capabilities to the best of our ability within the requests that he made of us.

CHAIRMAN KEMENY: Commissioner McPherson. I'm sorry. Governor Peterson.

COMMISSIONER PETERSON: Mr. Miller, did any of the employees of the plant come to your Medical Center for any testing of radioactive iodine in the thyroid?

MR. MILLER: I don't know if any of the individuals tested were specifically from the plant. We did not have any specific requests from individuals at the plant saying, I work at the plant, I would like to be checked out. It is very possible that some of the people checked were from the plant, but I couldn't swear to that.

COMMISSIONER PETERSON: You don't have any first-hand information about the testing of the exposure of plant employees during that event?

MR. MILLER: No, Sir, I do not.

CHAIRMAN KEMENY: Yes. (recognizing Commissioner McPherson)

COMMISSIONER McPHERSON: Mr. Miller, let me see if I understood correctly two or three things you said. The acoustics are so bad in here that it is hard to follow sometimes, but as I got it, you said that the Hershey Medical Center is

the outstanding facility probably within 75 miles of the Three Mile Island plant, the outstanding facility in equipment and personnel to deal with this kind of situation, to monitor it and to respond to radioactive injury. Is that correct?

MR. MILLER: That is correct.

COMMISSIONER McPHERSON: And that you had been so identified by the State of Pennsylvania as the hospital that would respond in the event of an accident at Three Mile Island?

MR. MILLER: I'm not sure that the State of Pennsylvania had anything whatsoever to do with that. We were approached initially many, many years ago by Metropolitan Edison and Three Mile Island people.

COMMISSIONER McPHERSON: By Metropolitan Edison?

MR. MILLER: Yes. Requesting that we develop our program and that we serve in this capacity in the event that they should ever sustain a radiation accident victim at the plant.

COMMISSIONER McPHERSON: Is it true that in order to get a license to operate the plant, the operator has to show that he has developed post accident plans which would include medical plans? In other words, Metropolitan Edison would have seen you or your Medical Center in pursuance of its obligation to have such a plan?

MR. MILLER: Yes, I'm certain that such a requirement is a part of the licensing. Not only is having a plan part of

the license, but periodic review and testing of that plan is required. From the beginning of the operation of Unit 1 we have conducted on a yearly basis simulated radiation drills with the plant in which simulated accident victims from the plant would actually be sent to the Hershey Medical Center --

COMMISSIONER MARKS: Pardon me, Mr. Chairman. We just simply cannot hear the testimony.

CHAIRMAN KEMENY: Yes. Can you try concentrating on the mike on your left. I know it is confusing having two mikes.

MR. MILLER: Do I need to repeat all of that, Sir?

CHAIRMAN KEMENY: The trouble is you are being too polite and looking at the person you are talking to, which seems to be the wrong strategy here.

MR. MILLER: I said that not only is it a required part of the license to have such a plan, but it is also required to periodically test such a plan, and to fulfill those requirements, at least once a year we had a review training program, not only with our emergency care personnel, but with personnel from the Three Mile Island nuclear power plant in which we would actually go through a simulated radiation type emergency there. We would normally get from one to three radiation accident "victims" supposedly containing not only trauma but contamination. Our people would go through all the procedures that would normally be used in the event that that were the

real situation, following which we would have a critique of the situation to pick out any problem areas or any weaknesses or any areas that should be changed. So we were constantly reviewing the program and constantly updating it as necessary.

COMMISSIONER McPHERSON: You ran these drills? You went through with these drills once a year?

MR. MILLER: At least once a year.

COMMISSIONER McPHERSON: When this event occurred or after this event occurred, you were not contacted by Met Ed or by anyone else to ready yourself. Is that correct? To get the Medical Center ready in the event of a need?

MR. MILLER: No, Sir. I think that they assume, and probably correctly so, that we are always on the ready.

COMMISSIONER McPHERSON: I couldn't understand that.

CHAIRMAN KEMENY: He said that he thinks that they assume that they always were in the ready.

MR. MILLER: As a result of that, the procedure is that they will call us only when there is a probability that they will be sending us a radiation accident victim.

COMMISSIONER McPHERSON: All right. They did not call you. We can't presume exactly why they didn't call you, but you assume it is because they didn't have anybody who was hurt or contaminated?

MR. MILLER: That is correct.

COMMISSIONER McPHERSON: The evidence you presented

in your original testimony suggests that there was very, very little radiation effect, change in the radiation levels as a result of this accident, at least in the areas that you monitored. Is that correct?

MR. MILLER: That is correct.

COMMISSIONER McPHERSON: On the basis of those measurements, it would not have seemed to you that an evacuation of the area was in order. Is that correct?

MR. MILLER: That also is correct. As I indicated in the information which I gave you, we did evaluate various types of biological samples, including grass, leaves, puddles from water, soil, stones, etcetera, and found absolutely, to the best of our capability, no radioactivity on any of these samples. We have, following each Chinese nuclear bomb test, in the atmosphere been able to detect very significant levels of radioactive material on all of the same types of samples. So, therefore, we would have to conclude that certainly the hazard represented in the area was far, far less than the hazard that existed a week after a Chinese bomb test.

COMMISSIONER McPHERSON: How quickly could that change, if you measured it, say, at 5:00 o'clock in the afternoon on Wednesday, March 28, and found no measurable change in radioactivity levels, how quickly could that have changed, had there been a major release of radioactivity from the plant?

MR. MILLER: I suspect that any change that we might

see in the area of the Medical Center would certainly depend on whether or not radioactive material being released reached us. Certainly if the winds were moving at a sufficient velocity in directions opposite from us, I would not expect to find any of it. How soon could it theoretically reach us, 12 seconds after I took my last sample, I would guess.

CHAIRMAN KEMENY: Dr. Marks.

COMMISSIONER MARKS: I'm not sure you are the person to ask this question, but in view of the measurements that you were making and the lack of indication that there was any significant increase in background, I'm curious as to what was the reasoning behind decreasing the census and preparing the hospital for evacuation. In other words, what was the input you got that started that procedure?

MR. MILLER: Well, I think that that particular time was about the time or shortly after the time it was discovered that there was a hydrogen bubble within the core of the reactor. The situation certainly looked to be much worse than anybody had previously thought. Based on the possibility that it might get worse; also based on the problem that we might face because many of the people, upon hearing the very distressing news that was being released at the time, many people, including I'm sure some of our own employees, had already left the area.

So it was purely on our part a very precautionary thing to decrease our census; not only were we helping ourselves

by doing this, but by freeing up patients who could very safely go home, I'm sure we were taking a tremendous burden off the minds of the families of these patients by providing them a means, if they were moving out of the area, to take their friends or relatives, what have you, with them.

So, like I say, you're delving into some areas that really are not within my expertise.

COMMISSIONER MARKS: To what extent, if any, was the decrease in census owing to the fact that hospital personnel were leaving the area?

MR. MILLER: I'm sorry. I don't understand your question.

CHAIRMAN KEMENY: The question is to what extent was the decrease in census due to the possibility that some of your own hospital personnel may have been leaving the area?

COMMISSIONER MARKS: In other words, you might not have enough staff to adequately care for the in-patients so that would be a factor in wanting to decrease the census.

CHAIRMAN KEMENY: Could I put the question more directly? To your knowledge, did some hospital personnel leave the area?

MR. MILLER: I don't think that really was a factor at all. At no time throughout the entire crisis were we to a point, to my knowledge, that we had insufficient personnel to handle the patients that we had.

CHAIRMAN KEMENY: Professor Lewis.

COMMISSIONER LEWIS: You say in your testimony that on March 30 the result indicated gamma ray activities ranging from four to five times normal background. Could you tell us what are the likely health results of that increase, if any?

MR. MILLER: These were gamma ray activities in the activated charcoal air samples that we were pulling outside the facility. These were not increases in the background readings as being detected by the other instruments that we were using. What we were doing with these samples was concentrating the background to a point where we could see radioactivity. The results of this were that we had at that point in time enough radioactivity that we could begin to evaluate specific radioisotopes within the sample.

To the best of our ability, we were unable to determine that there was any radioactive iodine within those samples, and that the gamma ray energies were more indicative of the radioactive xenon gases.

COMMISSIONER LEWIS: But you haven't said specifically: was there a danger to human health as a result of this increase in gamma rays?

MR. MILLER: As far as I was concerned, and still am, no. The levels, the actual concentration levels were very, very low.

CHAIRMAN KEMENY: Thank you very much for your testimony.



I'm conscious of the fact that we have one short item of business to transact and I don't want to forget it. Perhaps as a brief break, we could take it up.

We have the following dilemma with the Commission. It is a very temporary one that although we are very confident that early next week we will have the subpoena and oath-taking power that we have been seeking all this time. We do not have it as of today. Unless the Commission delegates the power to issue those subpoenas, as it did at its previous meeting in anticipation for this one, I would have to call a special meeting of the Commission in order to issue such an order. Therefore, I think a motion would be in order. Commissioner McPherson.

COMMISSIONER: Mr. Chairman, if I might make the following motion and ask my fellow Commissioners to support it:

I would move that the Chairman be authorized for the period commencing with the enactment of SJ Res 80, that is the Senate Joint Resolution that contains this authority for this Commission, and ending with the convening of our next meeting on May 30 to exercise the following powers of the Commission:

First, the issuance of subpoenas requiring the attendance and testimony of witnesses and the production of evidence, and

Second, the designation of Commission agents, in other words, staff, to administer oaths and affirmations,

examining witnesses and receive evidence.

CHAIRMAN KEMENY: Is there a second to that motion?

COMMISSIONER : Second.

CHAIRMAN KEMENY: Discussion of the motion. (Pause)

If not, will all those in favor of the motion please raise your hand?

(Commissioners voted as requested.)

CHAIRMAN KEMENY: Thank you. That is unanimous vote of the Commission.

(THE MOTION CARRIED UNANIMOUSLY.)

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CHAIRMAN KEMENY: May we call our next witness, please?

MS. JORGENSON: Our next witness is Paul Doutrich.

PAUL DOUTRICH, MAYOR OF HARRISBURG: I'm Paul Doutrich, Mayor of Harrisburg. I have no written statement but I could talk for an hour on it without a written statement. I will condense that hour into five minutes so we have time for questions.

First, a little comment or question I heard you ask Mr. Miller. Hershey is the closest hospital to the TMI area. However, within a 15 mile radius there are five hospitals. They are the only hospitals in the Harrisburg area--mainly, Holy Spirit on the West Shore, the Harrisburg Hospital which is 10-1/2 miles, the Harrisburg Osteopathic Hospital, and the

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Harrisburg Polyclinic Medical Center, which is about 12 miles, maybe 12-1/2. There are no other hospitals within the 20-mile radius and the next closest hospital would be in Lebanon, Lancaster, or up north. I just add that to the previous testimony.

I'd like to start by giving you a sequence of events, or lack of events. This problem, I'm told, began around 4:00 o'clock in the morning of March 28. Harrisburg, incidentally, is about 52,000--the largest single entity in the area. I got in my office about 8:30. At 9:15 I got a telephone call--not from TMI, not from Metropolitan Edison, but from a Boston radio station.

CHAIRMAN KEMENY: From whom?

MR. DOUTRICH: A Boston radio station.

CHAIRMAN KEMENY: Boston. Well, Boston is a very progressive city.

(Laughter)

MR. DOUTRICH: They asked me what we were doing about the nuclear emergency. My response was, "What nuclear emergency?" They said, "Well, at Three Mile Island." I said, "I know nothing about it. We have a nuclear plant there, but I know nothing about a problem." So they told me; a Boston radio station.

I then called our civil defense office and they said yes, they knew about it and were taking steps. Harrisburg is

the county seat as well as the capital; this was the county civil defense. So from that point on, we began working with civil defense and with the state government, Governor Thornburgh, who lives in Harrisburg; he is not just the governor there but his residence is also there. I got into the proceedings immediately. He designated Lt. Governor Scranton.

To this moment I have not received a call from Metropolitan Edison concerning a problem at Three Mile Island. I received calls from Australia, Japan, a German TV station came in, the Mayor of Austin, Texas called me to ask about the situation since they were having a referendum on a nuclear plant the following Tuesday--that's where the information came from.

Through Wednesday we weren't too excited in Harrisburg. We thought something was wrong and we were starting to take precautions. Thursday was a rather tense day. Still nothing from Three Mile Island. Thursday we began preparing evacuation plan, not that we thought we'd need it; we hoped we wouldn't, but we started to prepare one. Thursday also the people started to leave the city of their own volition; they wanted to go elsewhere. This presented what I considered probably at least equally as great a problem as the possible nuclear trouble--mainly, looting and fires, lack of protection in the city. So we put our police and fire on an on-call basis

and kept the tune that was on all around the clock. We had firemen and policemen patrolling the city.

Friday afternoon, still having heard nothing from Three Mile Island, my deputy public works director and I drove down to the island--not to the island, but to across from the island at their communications center which is about a quarter of a mile from the actual reactors. You see it right out there, of course.

We did ask to talk with the president, Mr. Crites (phonetic) and Mr. Herbein, the public information officer. Now, we will give them some credit: they did spend one hour with us discussing the matter, giving us their impression of things.

At this time I did not seek to talk to somebody from the Nuclear Agency but we did talk with them. Oddly enough, one of the things that impressed me the most and gave me the most feeling of confidence that things were all right was that everybody in that area, all the employees, the president and so forth, were walking around in their shirt sleeves, bare headed. I saw not one indication of nuclear protection. So I felt a little better; but we're still tense.

By Friday evening we had the evacuation plan completely prepared but I'm sure you can appreciate when you prepare an evacuation plan for a city of 52,000 in a period of two days, that plan is going to have some flaws. If you have

to implement it, you are going to be in real trouble. Because not only did we have our 52,000 people to get out (by now it was down to about 40,000 I would guess), but also remember that all our surrounding areas--Lower Paxton Township, Susquehanna Township, the whole horseshoe around Harrisburg--would also be leaving at the same time.

We were, however, prepared. We did have the plan. We do have the plan and we are refining that plan.

Constantly we were in touch with the civil defense; we met at the courthouse. The governor's office was represented. By Saturday evening we began to feel that things were going to calm down a little bit.

But Sunday morning I got an emergency call to come to the courthouse. Fortunately, it wasn't too serious. They had had a little flaw at the plant, but as you know, we never did have to evacuate. The point I can't emphasize enough is that, I think it was Winston Churchill who said, "The only thing we have to fear is fear itself," -- the fear of the people of Harrisburg that they had to get out.

One little comic relief--not comic then, but it is now: During the meeting in my office on Friday when we were planning our evacuation plan, the civil defense air raid siren went off accidentally. You can imagine what that caused in Harrisburg for about 15 minutes. I told people it was somebody's car horn that got stuck. But it went off accidentally.

Fortunately, it was an accident; no real reason for it.

I think in our considerations of any future problems, there are two very important things. First, any nuclear plant existing--and whether or not there are any future ones has yet to be decided--should help the area in which it is located to prepare an evacuation and emergency plan. There was absolutely none. Quite frankly, people in this area, at least in Harrisburg, didn't think much about Three Mile Island until this happened.

Also, there should be direct communications with the local municipalities governing bodies.

My basic feeling was to play it low key--don't cause panic. That's what we did and I think we were successful. We were ready; we weren't panicky; and I think the people--I just speak for Harrisburg, I'm not saying pro or con about surrounding areas--I think the people of Harrisburg deserve a great deal of credit for the calm manner in which they took this crisis, the slow but steady preparedness they did on their own and their readiness to take whatever steps were necessary to get out of town if they had to. I'm more than I can say how grateful that we never had to evacuate. That would maybe have been the worst catastrophe than the situation itself.

Hospitals, nursing homes: Tri Village (phonetic) here in Middletown did evacuate. That is a high-rise for the elderly which I mention because my mother lives there, but

fortunately she was visiting my sister at the time and was not evacuated. Those plans were handled by the county. For instance, in our plans for the evacuation of Harrisburg, we did not include the hospitals. Those plans were handled by the county. Our plans included the use of school buses-- schools were closed, incidentally--school buses, Capital Trailways buses, Harrisburg Area Capital Carrier Transit buses, and we had a standby arrangement with Amtrak for a train to get out of town, north, obviously. We had designated areas to which to go, one of which was Penn State, one of which was Lewisburg.

I'll close so there can be questions. I don't want to prolong this. I just did talk for an hour on this at a National Conference for Mayors in Lexington, Kentucky.

One final thing I think I want to mention every time I talk about Three Mile Island: I got one of the nicest letters that I've ever received from the Mayor of Cumberland, Maryland and the Council. They said, "Anything you people in Harrisburg need. anything we can do to help you, our doors are open, our hospitals are open, our armories are open, our homes are open. If you want to come to Cumberland, you're welcome." I think that any time I talk I should mention the consideration and thoughtfulness of that community. Thank you.

CHAIRMAN KEMENY: Thank you. I very much appreciate the extreme frankness of your statement. Please don't



misunderstand the next question. I do admire what you achieved in 48 hours, but since we are asked to look at the emergency preparedness as of the time of the accident, I hope I'm interpreting you correctly that as of Wednesday there was no evacuation plan at all.

MR. DOUTRICH: As somebody mentioned before, the acoustics in here aren't so great.

CHAIRMAN KEMENY: Yes, they are terrible. But I said I very much admire what you managed to do in 48 hours. But as of Wednesday, I gather that before Wednesday there was no evacuation plan at all for Harrisburg.

MR. DOUTRICH: Before Wednesday, Harrisburg, the people there, the government, thought of Three Mile Island as four smokestacks out in the Susquehanna River that provided some employment to residents in this area. There was absolutely no preparation, none whatsoever, nor was there any considered. I've lived in Harrisburg all my life and never did I ever hear anybody even mention the thought of preparation for an emergency at Three Mile Island.

CHAIRMAN KEMENY: I just wanted to be sure that that is what you meant.

MR. DOUTRICH: That's correct.

CHAIRMAN KEMENY: Any other questions?

MR. DOUTRICH: I did have one more comment on the economic facet of which Mr. First spoke. Three Mile Island

does employ, is a very large employment factor in this area, but I don't think that will be a serious problem. I also don't think that the long-range--immediate economic effects, yes--but the long-range economic effects of this disaster I don't think will hurt Harrisburg. Certainly the city government and surrounding areas are going to do everything they can to not only have it not affect it adversely but to use it as an asset, a tourist attraction, and to get people to come here rather than to keep them out of the city.

I don't think it will have people to say, "Oh, I can't move to Harrisburg; it's too close to Three Mile Island" anymore than they will say "I can't move to San Francisco because they have earthquakes occasionally" or Chicago because Mrs. O'Leary had a cow or Miami where there are hurricanes. I do not think it will have long-range economic effects. If it does, it's our fault; we are getting ready to prevent that.

CHAIRMAN KEMENY: Professor Taylor.

COMMISSIONER TAYLOR: Do you remember at what time roughly and by whom you were informed that the original estimates of the damage to the core, and so on, the potential threat of the release of radioactivity, at what time were you informed that this situation was worse than people had originally said?

MR. DOUTRICH: I don't really recall being specifically informed. The gathering information led to that conclusion. Then my information, and what led us to that conclusion, I

would say was late Thursday we began to suspect that it was that way. By Friday we were convinced that it was extremely serious and that's when I decided to proceed.

COMMISSIONER TAYLOR: I see. From what source --

MR. DOUTRICH: The information came through the civil defense offices at the county courthouse; all my information came through the county civil defense and the governor's office and what I garnered on my own. As I mentioned before, none came from the corporation itself.

COMMISSIONER TAYLOR: I'm not sure I understood --

MR. DOUTRICH: Harrisburg is not serviced by Metropolitan Edison. We are Pennsylvania Power and Light. So we are not serviced by them and that's another slight question I have. Why would a plant be located in an area that it does not service, just because probably of the economics, from the plant's standpoint indicated that. I do not think future plants should be in a heavily populated area such as ours.

I think I did answer your question.

COMMISSIONER TAYLOR: Yes. Thank you.

CHAIRMAN KEMENY: Any more questions? (Pause)

Thank you very much, Mr. Mayor.

MR. DOUTRICH: Thank you, Mr. Chairman.

CHAIRMAN KEMENY: We have one more witness before lunch, and the plan will be after hearing our next distinguished witness, we will declare an hour's lunch break.

MS. JORGENSON: Congressman Goodling.

CONGRESSMAN WILLIAM F. GOODLING, 19th DISTRICT OF PENNSYLVANIA:

Mr. Chairman, I'm happy to be here this morning to testify. I'm going to stick strictly to what you said in the letter. In the letter you asked that I address the primary concerns of my constituents during the accident at Three Mile Island and its impact, rather than any statement that I might have. I would say that the President of the United States, the Secretary of Energy, and all of my colleagues have been lobbied heavily by me since this accident and therefore I will do all my work with those folks and I will attempt to relay to you just what your letter asked, the concerns of my constituents and the impact they feel this accident has upon their lives.

I probably will be repeating much of what Mickey Minnich (page 59) said, and he very emphatically said. Since I have gathered my material from five meetings that I have had in the last three weeks with about 1500 constituents, many of those meetings had been scheduled before the Three Mile Island accident. I'm going to primarily concentrate on the five-mile area because I don't believe, as I say in my report, I don't believe my colleagues, I don't believe most Americans understand the psychological impact this accident has had upon the residents, particularly in the five-mile area, who were constantly part of the news day after day, day after day.

Much of the information that I have given to my colleagues and to the President comes from the fact that I spent a great deal of time Thursday, Friday, Saturday, Sunday, and Monday at Three Mile Island after the accident and in that particular area.

Let me, then, very quickly--and I don't usually appreciate people who come before our committees reading their testimony--but since it isn't mine, it's what my constituents are saying, I want to make sure that you know exactly what they have told me, primarily the people who reside in the five-mile area.

Beginning with the first day of the accident: most constituents in this area cannot understand how their children could have been permitted to be exposed during those early hours while waiting for school buses or while on the playground. They just think that it was sheer negligence that this thing should have happened. Had an earlier notification been given, they certainly would have kept their children indoors. They are concerned about the fact that they have never been able to discover how much radioactivity was emitted during those first hours; in fact, perhaps during the first day and a half after the accident.

The people in this five-mile area are tired of hearing that they have been receiving only low-level radiation and this isn't going to affect them. They want to know what

studies over a period of years prove that there is little danger or no danger from low-level radiation. They want to know how much low-level radiation they can take before it becomes an obvious detrimental health factor.

They have indicated that many scientists believe low-level radiation to be very detrimental to one's health. They want to know if preventive medicine is going to be practiced during the ensuing years so that all in this area are closely monitored so that we won't have reports 20 years from now because of this accident similar to those released recently from testing that took place many years ago.

Many have indicated that the peace of mind and the quality of life which were so abundant in this area prior to the accident have now disappeared. They believe that in the past they have been lied to or strongly misled in relationship to the safety aspects of nuclear power. They want to know the real truth about the possible damaging health affects of drinking milk or eating meat or produce from this area. Their mental health cannot stand for the dumping of the contaminated water into the Susquehanna River no matter how improved one might say it is. They are sick and tired of hearing that it will be within the allowable limits because they don't believe there is any proof that there are allowable, safe limits.

Turning to some of their economic concerns, they want to know what the real truth is in Metropolitan Edison's

generating power capability with TMI versus kilowatt usage in the Metropolitan Edison supply area. They want to know whether they are paying a surcharge for power being sold around the grid which is really generated here.

They have been told that locally federally chartered savings and loan associations and banks have requested that real estate appraisers attach a statement to their appraisals as to whether the property being appraised is within the five-mile radius of TMI. If this is so, they are wondering whether it isn't inherently unfair and unlawful.

Many are adamantly opposed to the reopening of Three Mile Island as a nuclear generating plant. They have indicated that thirty-five homeowners in one area are seeking to relocate in case TMI is again opened.

As for the future, they want to know the real schedule for radioactive releases in the air and water and what the isotopic content will be. They want an improved civil defense program in the area because they believe any mass evacuation would have been a disaster and still do not believe there is a workable plan. They also believe that any plan should be tried at designated times.

They do not want the damaged core permanently stored on Three Mile Island. They want your Committee to sit on the West Shore, believing that this downwind area has been more exposed than any other. They want the scanning equipment

provided to the citizens of Middletown to also be brought into the Newberry Township Area. I might say, 300 feet across the river if you would swim you would be in Goldsboro. It is a long way if you don't swim to get around to Middletown. They feel that right across the river has been neglected in many instances, and particularly in the downwind area.

They want safe energy at a price they can afford. Finally, they want your Commission to sit in Goldsboro.

Let me again say in closing my testimony that I am sure most people do not understand the psychological damage that has been done to residents within that five-mile area surrounding the Three Mile Island Nuclear Plant. Let me also say that I believe the federal government has been instrumental in bringing on nuclear power because , first of all, it succumbed to extreme environmentalists without thinking what the alternatives were and then promulgated regulations which would move us away from coal. The federal government, of course, encouraged this development through the Price-Anderson Act.

Therefore, it is my believe that the entire United States must help us at this particular time. If we must carry the burden alone, we will not be economically competitive because our cost for electricity will be entirely too high.

Thank you again for giving me this opportunity to testify.



CHAIRMAN: Thank you. Are there questions of the Congressman? Professor Marrett.

COMMISSIONER MARRETT: You indicated a number of things that are concerns of the citizens. I wondered if there are ways that we could gather some information with reference to a few of them? For example, there was a comment about the action of the savings and loan associations and banks. This follows up on an earlier question I had about what do we know as the economic impact. Is there any way we can find out any more on something like this to determine, in a sense, the facts with reference to that as well as a comment on the interest some homeowners have in relocating? If we are interested in trying to gather what evidence there is, what indications there are for a number of these kinds of things, how would we proceed?

MR. GOODLING: Yes, I can certainly provide you with that information. They definitely have information in relationship to the savings and loans and the appraisal situation. They also have the people who have indicated in that small area that they would move from this particular area. We can provide you with those names and with the information in relationship to the savings and loans and the appraisals. I have made it very clear to all of my constituents that we must have factual material when we go to fight the battles that are going to have to be fought.

CHAIRMAN KEMENY: We would very much appreciate receiving that information, Congressman Goodling.

MR. GOODLING: I will see that you personally get that information.

CHAIRMAN KEMENY: Other questions? (Pause) If not, let me thank you very much for your courtesy of appearing.

I've been informed that because of our slippage of timetable, if we take lunch now we will not be able to hear from Congressman Walker. Therefore, I certainly am going to call Congressman Walker before we eat lunch.

(Applause)

CONGRESSMAN ROBERT J. WALKER, 16th DISTRICT OF PENNSYLVANIA: I thank you very much, Mr. Chairman, for your courtesy on this. I am meeting with some constituents down river who are also concerned about Three Mile Island later on this afternoon and I would hate to miss that.

What I will do, though, is a summation of the text of my remarks rather than trying to go all the way through it to try to speed things along and highlight some concerns.

I might first of all divert from the text and say that I became aware on Friday of your problems with some legislation that you had before the Congress. That was the first I had heard about it. I want to pledge to this Commission you will have my cooperation in the House in trying to push that through. I understand we have things pretty well

in hand for tomorrow and it takes a record vote on Tuesday, but I certainly want to cooperate with you in any way to make sure that you get the power that you need to get to the full facts of his matter.

CHAIRMAN KEMENY: We very much appreciate your help.

MR. WALKER: I would, first of all, like to thank you for your willingness to allow me to testify, because I think there are a few concerns that became apparent to me in the course of the crisis and since that need some focus, and they are concerns that I find are being reflected by my constituents regularly as I talk to them.

The first of my recommendations to you would come from the standpoint of communications. My constituents felt throughout that the problem of communications became acute because they felt that policy decisions were being made in a vacuum in many instances. They also found that the communications that they were getting to allow them to make their own decisions were very, very bad.

I would think that one of the first things I would hope the Commission would look into is bettering the communications facilities at each plant site so that when and if an accident takes place, immediately a sophisticated kind of communication network could be brought into being that would allow public policy makers to get the information they need from the accident site, would allow the public to get the

information they need to assess their own position relative to the accident, and finally to permit the press and news media to disseminate that information on a timely and accurate basis. Legislation to this extent has been introduced by Congressman Goodling, Eretl and I that would ask for a sophisticated communications set-up at each and every site across the country.

Also, I think, there is also a need for the state emergency preparedness plans to be upgraded. In particular there, I found it particularly disturbing that each area does not have before it or have within it anti-radiation contamination chemicals to help a populace that might find itself immediately contaminated. I think that those kinds of things should be put into each area where there's a nuclear plant operating.

It is interesting to note, in light of the crisis, that the Price-Anderson Act seems completely inadequate in its coverage of an area that might be subjected to a nuclear catastrophe. I would think that this Commission at least should look into broadening the coverage of that Act and maybe even the actual repeal of the Act is worthy of the consideration of this group.

Another disturbing aspect is the whole business of how we go about cleaning up an area if it is contaminated by nuclear accident, if there would be a meltdown or explosion that would lead to contamination. I think there should be some

federal government activity and research aimed in the direction of decontamination of an area to help bring farmland back into production and help businesses, communities recover from the crisis.

Finally, in this summation, I want to deal with an issue that I think is the most important issue right now on the minds of my constituents that is an aftermath of this crisis. It directly concerns the public health and safety as a significant policy issue. In particular, we are faced with the question of how a nuclear industry treats clean-up problems related to a nuclear accident. It is the issue of whether or not the radioactive waste water once treated will be dumped into the Susquehanna River.

Naturally, my constituents are concerned about such a process because it means that the treated water which will still contain low levels of radioactive material will eventually end up in their drinking water supplies. For such an act to be contemplated seems to me to be wholly irresponsible to the need to assure the public that every possible course is being taken to assure their health and safety. It does not respond to the legitimate demand that we should in no way take conscious actions which would produce even the most minimal levels of danger. The public rightly becomes disturbed and they feel that decisions are being made for scientific, technological or economic reasons which appear inconsistent with public fears

and concerns.

It is my personal opinion the decision to dump the waste water into the Susquehanna will be not only an unacceptable act, but will signal to the people of this area and the people of the United States a kind of callousness on the part of industry which is calamitous, particularly given the grave potential danger of the material with which that industry deals daily.

You have in your hands a large role in determining the future of nuclear energy production in this country, a future which I believe we must not and cannot abandon capriciously. But I must say that my faith in the assumptions on which the nuclear industry has previously been based have been shaken. My awareness of the public safety issues have been increased and my understanding of public concerns about nuclear issues has been heightened by the Three Mile Island incident.

The public is seeking new assurances. They are seeking new ways of handling the dangers and potential of nuclear power. They are seeking a credible conviction that the lessons learned at Three Mile Island will mean the problems of Three Mile Island will never again be repeated, and they are seeking our guarantee that any continued generation of nuclear power will be based on more vigilance than has ever been exercised in the past. This Commission has an opportunity

to provide the people of this area with those kinds of assurances and my constituents will watch your work most closely.

Thank you very much.

CHAIRMAN KEMENY: Thank you. Congressman, could I lead off? You raise several very important points. I would like to follow up the first one.

MR. WALKER: Fine.

CHAIRMAN KEMENY: We have heard again and again about the lack of communication and you made a very concrete suggestion that, as I understood it, that there should be communication network in place permanently in the vicinity of a nuclear power plant. Do you have a feeling, because this is part of our charge, whether such a communication network should be manned by federal agency or by state agency?

MR. WALKER: What I would hope is that this would be the responsibility of the plant, once it was built and as it is being, right now, as they are being upgraded to meet the standards that grew out of the Three Mile Island incident. I would hope it would be the responsibility of the plant to put in such sophisticated communications network on a standby basis. There is not a great expense involved in this compared to the overall expense of operating plants. Standby kinds of communications I think would be in the best interest of the public over the long run. I just don't see that that is a major kind of economic problem that couldn't be handled by the

utilities as a part of their nuclear commitment.

CHAIRMAN KEMENY: So therefore you are suggesting, in effect, it should be the responsibility of the utility to get prompt notification to all public officials in the area.

MR. WALKER: That would be my suggestion. That's right, Sir.

CHAIRMAN KEMENY: Professor Lewis.

COMMISSIONER LEWIS: Do you think, in the light of this experience, that the people would trust information that came directly from the utility? Wouldn't it be better to have a state or a federal source of that information?

MR. WALKER: Well, I'm not really responding to the issue of who should utilize the communication facilities once they are in place. I think it became apparent in the course of this crisis that the people believed the NRC. When the NRC got on site, particularly Harold Denton who we around here believe did a superb job, he was believed. I think that what we have to have in any incident of this type is a believable figure disseminating information to the public.

What I am trying to get at is there needs to be a means for them to reach the public. There needs to be a means for the NRC in Washington to be getting all of the best information.

I happened to be on site on Friday, the day the release took place, the additional release that caused a great



deal of concern. I knew that the information being gathered at that point by the people on site was not the information that was being used by policy-makers, both in Harrisburg and Washington to make their decision as to whether or not to evacuate because the people there couldn't get open phone lines to tell them what the updated information really was.

I considered that to be just a complete breakdown at that point. It was not the fault of the telephone companies and so on. They came in right away and worked very hard to get those communications facilities in place, but they should have been in place beforehand so that as soon as the information was developed they could get it to the policy-makers. That is what wasn't there. I think that is what led to the breakdown of communications right off.

CHAIRMAN KEMENY: Professor Taylor.

COMMISSIONER TAYLOR: What kind of a process would you propose be the one by which the public becomes informed about the nature of the clean-up process and the basis for whatever clean-up process is decided on to be judged to be safe? Have you thought about the process itself by which public exposure to the nature of that and perhaps some capacity, some mechanism for the public to get some feedback into that process? Have you thought about that at all?

Mr. WALKER: I think that the essential ingredient in all of this is the ingredient, as far as the public is

concerned, is the ingredient of credibility. At the present time I would say that in this crisis the credibility rests with the NRC. Most particularly it rests with one individual within NRC, Harold Denton.

But the main aspect that I think has to be addressed in any kind of relationship with the public in a clean-up is to make certain that they think the information coming to them is credible. At the present time I think that any information, for instance, with regard to dumping the water into the Susquehanna coming from Met Ed is not going to be believed by the vast majority of my constituents. Therefore, it becomes a very grave political issue, emotional issue, and in the final analysis, scientific issue, the fact that whatever they decide to do won't be believed by the public that the results are what they say they will be.

I think it is extremely important that the spokesman on all aspects of this, particularly as we go about cleaning it up, be a credible spokesman. As I say, it seems to be right now probably that credibility rests more with the government than it does with the private utility.

COMMISSIONER TAYLOR: Would you favor public hearings on that subject?

MR. WALKER: Absolutely. I really think, in my own belief, I think we need to have an environmental impact statement on any and all clean-up operations that take place. I

think that we should go through the whole EIS procedure-- public hearings and all of that--to insure that each and every major step that is taken in the clean-up is something which the public is assured has been addressed in all of its various options.

It is disturbing to me that when I contacted the NRC at first about this business of dumping the waste water into the Susquehanna, I was told that the only option ever considered was dumping the waste water into the Susquehanna, that there were no other options even talked about. Well, that, to me, just doesn't respond to what the real need is here. So it seems to me that if we follow the procedure that took EIS statements of all major activities related to the clean-up you would get some kind of public assurances growing from that.

COMMISSIONER TAYLOR: Thank you.

CHAIRMAN KEMENY: Dr. Marks.

COMMISSIONER MARKS: Congressman, was there any effort prior to the accident to establish some credible communication with the utility and the appropriate community groups with regard to disposal of waste?

MR. WALKER: Well, I think that most public officials like myself have probably been invited at one point or another to tour Three Mile Island to get their perspective on what all of the problems were that they faced and what they thought the potential for the area was. I personally a couple of years ago

had been out and toured the island when reactor number 2 was still being built, and number 1 was on line. I think that has probably gone on to a number of community leaders. Just how far it went, I don't know.

Some of the issues with regard to waste disposal were addressed at that point, of course, primarily from the standpoint of the people who were promoting this particular plant and nuclear energy in general.

But, yes, there was some attempt to establish lines of communication along this line, which I think things stayed open. But it broke down completely as the incident took place. I feel that in the initial going in the incident that I was misled with regard to information I was given. I arrived at the site about 36 hours after the accident took place, along with Congressman Goodling. We also brought along Mike McCormack, the chairman of one of the nuclear subcommittees in the Congress, and Jack Wydler, who is the ranking Minority Member.

At that point, we tried to tell them, make sure that you give the public every detail of information that is available to you so that the public can go about assessing this. We were assured that that would happen. Obviously, it didn't. I felt that even some of the information that we were given in that briefing was misleading information. We were not, for instance, told about the fact that there had been a hydrogen explosion at that time.

So the problem was that even though there were communications previously, they seemed to break down at the point of the incident.

COMMISSIONER MARKS: Testimony that we've heard even today suggests that the situation continues, that there is still a major credibility gap and lack of information as to precisely what's happening.

MR. WALKER: I think that's true.

COMMISSIONER MARKS: Do you have any suggestions as to what can be done or should be done right now to correct it? I mean the situation is right now.

MR. WALKER: I'm having problems with that, to tell you the truth. I mean, I have tried every way possible to impress upon the utility officials, their lobbyists in Washington, the nuclear industry, the NRC, the EPA, all of these people, I've tried to impress upon them the seriousness of the public problem of dumping the waste water into the Susquehanna. I don't know whether I've gotten through or not. So far, I don't think I have because all along they still continue to talk about, well, maybe we'll look at different options for treating it, but the end product of it seems to be that they are going to dump it in the Susquehanna. That seems to me to be the breakdown in communications because I think that I am reflecting a public concern that is a broad base public concern. It is certainly the bulk of my mail at the present time. It is

the bulk of my contacts. It is a public concern that, in my opinion, will lead to near revolt if they go ahead and put the first thimbleful of that water into the Susquehanna.

Now, if I can't get that across to the people responsible, there is a breakdown of communications.

CHAIRMAN KEMENY: Any other questions? (Pause)  
Thank you very much for your testimony.

MR. WALKER: Thank you very much for having me.

CHAIRMAN KEMENY: I declare a one-hour recess of the Commission.

(Applause)

(WHEREUPON, at 1:15 p.m. the Commission meeting recessed for lunch, to reconvene at 2:15 p.m.)

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SECOND MEETING OF THE  
PRESIDENT'S COMMISSION ON THE  
ACCIDENT AT THREE MILE ISLAND

MULTIPURPOSE BUILDING  
CAPITOL CAMPUS  
PENNSYLVANIA STATE UNIVERSITY  
MIDDLETOWN, PENNSYLVANIA

SATURDAY, MAY 19, 1979  
AFTERNOON SESSION

ATTENDEES

COMMISSIONERS

John G. Kemeny, Chairman  
Bruce Babbitt  
Patrick E. Haggerty  
Carolyn Lewis  
Paul E. Marks  
Cora B. Marrett  
Harry McPherson  
Russell Peterson  
Theodore Taylor  
Anne Trunk

STAFF

Barbara Jorgenson  
Bruce Lurdin  
Ronald B. Natalie

APPEARANCES BEFORE THE COMMISSION

Larry Arnold, Para-Science International  
Ray Pickering, Three Mile Island Alert  
Angela Herrder  
Donald Hoeffler  
Acos Zetter  
Fran Cain  
Jacqueline Reigle  
Harry Machita  
Sandra and George Rineer  
Dr. Charles Cole  
V. T. Smith  
Sue Hegan  
Dr. John Harposki  
Dr. William Shoff  
Stephen Sholly  
Albert Manick  
Milton Lowenthal  
Ernie Smith

POOR ORIGINAL

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**POOR ORIGINAL**

The afternoon session consists of pages 152-a through 277.



The afternoon session is brought to order by Chairman KEMENY.

CHAIRMAN KEMENY: As most of you know, the President's Commission on the accident at Three Mile Island is using this day from 9:00 a.m. until at least 9:00 p.m. to try to hear from as many citizens of this region as possible. I would like to start off by expressing our deep appreciation to Mayor Reed of Middletown for making office space available and a reservation line, and to Mrs. Edith Cozer for organizing and managing a cadre of local men and women to staff the reservation line last week. We were flooded with requests and we apologize to those we cannot accommodate. We have urged all of them to write to us and we will read your letters.

In order to be fair to all those who have signed up, I'm going to ask each witness to limit his or her statement to five minutes, and give an opportunity to the commissioners to ask questions. Our Public Information Director, Barbara Jorgenson, will call the witnesses in the order in which they have been scheduled. May we proceed?

MRS. JORGENSON: Our first person this afternoon is Larry Arnold.

MR. ARNOLD: Good afternoon Mr. Kemeny, Commission members. We're accompanied by a colleague of ours, Sandra Nievius, who is going to share and does share the concerns that we're about to express verbally to you this afternoon.

Perhaps not since the people of St. Georges, Utah, were told in the 1950s that their safety was never in danger by A-Bomb tests up wind, has a large segment of Americans been subjected to a more reprehensible mind game than has south central Pennsylvanians in the Spring of 1979. To us, however, the scheme of duplicity, obfuscation and confusion is nothing new. Nor was the accident itself a surprise. It is appropriate that we address you as the first private citizen in the aftermath of a major accident at Three Mile Island, for we were the last citizens to make a limited appearance before the Atomic Safety and Licensing Board for Unit Two in the Spring and Summer of 1977. For that effort, we were told by the ASLB Chairman that our concerns were not worthy of being included as part of the permanent record of that Commission. We would hope that this Commission would give more credence to what we have to say. Because the major safety and operating contentions that we voiced then were discounted. Two years later they were stunningly verified. In the summer of 1978, we authored an article entitled Melt Down, Tomorrow's Disaster at Three Mile Island. Despite vilifying assertions by Metropolitan Edison that the scenario in this article of nuclear horror was sensationalism, untrue and distorted, twenty-five predictions therein, ranging from reactor monitor failures and control room confusion to impossible explosions and containment and evacuation plan inadequacy have since been substantiated.

Why do we tell you this today? Because our feeling, as Dr. Kemeny has labeled, what the public has to offer as input to this Commission, have proven far more accurate than all the facts about nuclear reactor design, operation and safety that has been hoisted upon a gullible population by the AECs and the NRCs experts. And those feelings now tell you that if the lesson of the folly and risk of nuclear generated electricity now symbolized by Harrisburg is not heeded, then a more catastrophic reactor accident, a full class nine, breach of containment or melt down, is not only assured but is eminent.

Despite assurances over the last twenty-three years that commercial reactor and nuclear reactors have functioned under the very best of safety criteria, the reality of March 28, 1979 revealed the mellifluous mendacity of the nuclear industry. An industry that, to say it most charitably, has made gross mis-evaluations and mis-representation of fact as a standard of operational policy. Now we are being told by that same industry that improved engineering and better equipment and more qualified technicians and stricter operating regulations and enforcement will make another unthinkable nuclear impossibility impossible. We tell you that no problem can be solved on the same level of consciousness that created the problem initially. Yet that is what we and you are being asked once again to accept. It requires only common sense to see the fallacious nature and fool heartedness of this

contention as the Brookhaven WASH-740 update reported noted in 1964, quote, "in any machinery as complex as a reactor facility, it is inevitable that structural failures, instrument malfunctions, operator errors and other mishaps will occur despite the most careful design and rigid schedules of maintenance and administrative control. Such has been the experience with the reactor installations." Closed quote.

And so it was on March 28 at TMI 2 and so will it be as long will it be as long as technology is condoned by men of limited vision.

In addition to these items, however, the Commission should investigate another very real and frightful possibility. And that is whether the accident was caused or influenced by telepathic or psychokentic manipulation. That is that someone sabotaged crucial sections of Unit 2 by externally controlling equipment functions and/or the processes of on-site personnel during the two weeks preceding 4:07 a.m. on March 28.

As a parapsychologist we have observed a number of specific esoteric factors that indicate to us that much more than meet the eye was focusing on TMI 2 during and after this crucial period. Unless this aspect of TMI 2 is investigated and can be absolutely discounted, reactors everywhere are subject to serious transients and beyond the control of any operator or engineer under the present operating conditions.

Our esteemed commissioners, regardless of where your inquiry leads you, you have only options to consider regarding whom or what triggered the near catastrophic accident at TMI 2. We ask that your final recommendation, the bottom line of the Kemeny Commission, be based on your own inner awareness and a level of consciousness higher than the one that has subjected all of America to the horrific risks of nuclear reactors. That recommendation in our view can be but singular that Unit 2 shall never reopen and that it's sister reactor likewise be immediately be commissioned. That a few sacrifice so that others may live has guided this nation through more than two hundred years of achievement. That progress now and posterity. If the awakening of revaluations from TMI 2 leads to this end, then the trauma, duplicity, the insecurity, the hazards, the sense of helplessness and the radiation to which we and others in south central Pennsylvania have been subjected in this nuclear horror story will have been worth it. As members of this Commission have so eloquently stated there is a sense of urgency here. We completely concur. We predict now that TMI 2, America's worst commercial nuclear accident to date, will be surpassed with a more horrific and damaging radioactive breach of containment by 1982 if these monstrous fission furnaces are allowed to continue operation. Perhaps we should suggest that the Commission consider an eleventh commandment, that if you vision not, then you can fail not. By it's final

decision, this historic Commission will begin the restoration of integrity and sanity to man's interrelation with the biosphere. By recommending Units 1 and 2 at Three Mile Island be removed from the ecosystem. That can serve as the pioneering step in the safe, orderly and timely shutdown of all nuclear reactor systems in this country and hopefully throughout the world. Your future, our future, that of generations yet unnamed, and the planet itself, requests from you no less. We will be glad to answer any questions that this testimony may have raised to you, or if we can provide information that we have discovered as we've interviewed and talked with residents in the area, we'll be happy to share that with you in the time allotted to us.

CHAIRMAN KEMENY: Thank you. Are there questions from Commissioners?

MS. MARRETT: Yes, your last statement. You said you'd be happy to share with us information you've obtained. Could you say a little bit more about that information?

MR. ARNOLD: We've spoken with residents in the Middletown area, for example, who have told us that the morning of March 28 and a few days thereafter, they detected in the air a metallic substance. The medical personnel, to our knowledge and also NRC officials, discounted these reports as psychosomatic. We have since been informed by Dr. John Goffman that this metallic taste in the air is most likely directly attributed to an intense radiation burst into the atmosphere.

We've also talked with individuals in the Middletown area who've had thyroid operations, were taking medications for this condition, and were surviving quite nicely until the morning of March 23. Since then they have had to increase their medicinal intake to control the physiological processes. The physicians of these patients feel that the symptoms are a direct cause of radiation in the air released from Three Mile Island.

Another gentleman in the area has a tachycardiac problem which he's been able to keep under control by taking one tablet of potassium a day for the last several years. As of March 28 he has had to increase his intake of potassium substitute by a factor of five times. It would seem that this condition as his physician seems to concur at the moment, is also attributed to radiation released from Three Mile Island into the population surrounding the site.

CHAIRMAN KEMENY: Other questions? Thank you very much for your testimony.

MR. ARNOLD: You're quite welcome.

MS. JORGENSEN: Could we now hear from Kay Pickering?

MS. PICKERING: Good afternoon. Thank you for allowing us to testify in front of you. I'm Kay Pickering. I've been a staff person on a volunteer basis with Three Mile Island Alert for two years. I have with me Lee Musselman, who will give the testimony on behalf of the organization.

MS. JORGENSEN: Could you repeat your name, please?



MR. MUSSELMAN: My name is Lee Musselman. I'm Treasurer of the Three Mile Island Alert and a member of the Health Committee.

Three Mile Island Alert was formed three years ago in an effort to educate people to the dangers of nuclear power. Since then the group has adopted bylaws and is presently taking steps to incorporate under the Pennsylvania non-profit statute. The group has created committees to carry out specific tasks. Last winter a series of meetings were held with Kevin Malloy, the Director of Dauphin County's Office of Emergency Preparedness, to determine if evacuation plans were adequate to meet the community's needs in the event of a nuclear accident. For the past six months, TMIA has been meeting with officials of the Pennsylvania Department of Health, the Pennsylvania Medical Society, and the Health Planning and Resource Development Agency for central Pennsylvania in an effort to study and determine the effects of low level radiation in the Three Mile Island area.

Three Mile Island Alert's main goals are: the permanent shutdown of Three Mile Island, a moratorium on construction and licensing of all nuclear powered generating facilities, the removal of Three Mile Island's Unit 2 from the utility rate base, encouragement of the development of alternative energy sources. Our opposition to nuclear power centers on it's questionable economics, it's unresolved safety problems, it's detrimental health effects, and it's unknown psychological



effects. Many economic factors have promoted the growth of nuclear power. Utilities are heavily subsidized by the U.S. government in areas of research and development, fuel processing, decommissioning and waste disposal. The rate base established for each plant is directly proportional to the cost of construction. Therefore the complex technology of a nuclear facility generates more profits than a less sophisticated source of energy. However, this technology is uninsurable without the limited liability of the Price-Anderson Act. The Atomic Energy Act of 1954 states that the licensee will be indemnified and held harmless from public liability in excess of 560 million dollars. While the U.S. government estimated a minimum of twenty billion, or twelve billion dollars damage to people and property in the event of a nuclear melt down. Whether the means of producing electricity carry such potential for physical and financial devastation, if nuclear utilities truly believe in the safety of their facility, let them assume responsibility for their actions. As Dr. John Goffman, who holds the patent on the efficient ability of uranium 233 said, put liability where liability belongs. Why should the consumer pay for the Three Mile Island's Unit 2 to come on line, then pay for replacing the power, and for cleanup of the accident? This is triple jeopardy. We do not want the consumer to pay for this accident, either through rate increases or through federal subsidy. The general population is exposed to radiation during

all stages of the nuclear fuel cycle. This exposure occurs through uranium mining, decay of , fuel processing, transportation of materials through populated areas, controlled releases to air and water, uncontrolled releases from malfunctioning plants, and storage and disposal of nuclear waste materials. Recognizing the potential of low level, the potential danger of low level radiation, the Environmental Protection Agency will lower the legal dosage for the general population from 510 to 500 milligrams to 25 milligrams in December 1979. However, monitoring the effects of radiation has not been properly addressed. For example, the number and accuracy of monitoring devices were inadequate to measure both gamma and beta omissions, according to Dr. Rosalie Bertel, beta omissions give a dose about a hundred times as great as that reported for gamma radiation. Similarly using parameters recommended by the International Commission on Radiological Protection for a dose to the thyroid to a standard man, the inhalation of one microcurie of iodine 131 equates to a 1.4 ram dose. That's 1,480 millirams. Another safety consideration is the basic design deficiency Babcock-Wilcox reactors. The volume of primary coolant water is insufficient to handle sizeable transients in reactor temperatures, thus increasing the likelihood of the reactor core melt down. The absence of adequate health data is a major problem in determining the effects of low level radiation. There are no records concerning radiation kept on the general

public. Detailed health records for utility workers exposed to low level radiation are not maintained for a period equivalent to the long latency of cancers and leukemias. Without this documentation the radiation levels appear harmless. Frequently interested parties have equated these doses to background radiation or x-rays. However, the hazards involved are not so simple. During Senate subcommittee meetings, experts attributed one to three percent of the national cancers to background radiation, and agreed that the effects of radiation were accumulative. Therefore, as the background radiation increases, so does the risk.

Also, radiation affects different parts of the body in different ways. A forty to fifty milliratz skin dose x-ray may translate into a one to ten milliratz bone marrow dose. Dr. Bertel has informed us that most nuclear physicists report an external dose in terms of a bone marrow dose, not a skin dose. Therefore an eighty milliratz dose would not translate into two chest x-rays. It would translate into between twenty and forty chest x-rays. These doses would be increased by a factor of ten to twenty in the developing fetus and children due to the high metabolic assimilation of radioactive compounds. Health problems are also incremented through our food chains, since plants and animals will absorb and concentrate radioactive substances. As we eat them our body concentrates these substances still more, compounding our risks. Large doses of radiation will be received by people living close to

or downwind from Three Mile Island. Therefore it is misleading to calculate the average dose per person for an arbitrary five or fifty mile limit. We know that some inert gases have escaped with small amounts of iodines and other chemicals, but isotopes can decay into more dangerous daughter products. We are told that there are minimal health effects, but no one has the records to prove it. Obviously, we are the guinea pigs for the benefit of others. Besides health data, we will also provide psychological data on the effects of a nuclear accident. Already psychiatrists and sociologists are recording increases in stress related traumas such as expressed and repressed anger, anxiety, confusion, resentment against Met Ed and evacuees, nightmares, insomnia, paranoia, marital problems, gastrointestinal upsets, elevated blood pressure, denial of reality, and feelings of hopelessness. Some people look forward to an increased curiosity tourism. Yet we people want to live in the area of this historic accident. Already some people have moved away. The specter of plummeting property values looms before us. This accident is attacking our property, our bodies, our minds, our children and our children's children. For our sake, shut down Three Mile Island forever. (APPLAUSE).

You will note that attached to your copy of our testimony, is a statement, a recent statement that we made at the beginning of May to the Pennsylvania Health Officials, requesting, asking and demanding that in-depth studies be done

epidemiological studies, data collection. This is attached to your copy, and I will not go into that at this time.

CHAIRMAN KEMENY: Thank you. May I ask you a question on the evidence of additional health problems due to stress? What are your sources for that and where might we be able to obtain that?

MS. PICKERING: As a staff person in our office, we get calls every day, many calls from people who are distressed, highly stressed. This morning when I was in the office before I came today, we got a call from a woman whose husband is a worker there. She was so upset, so distressed, all she could do was yell at me, because I opposed the actual reactor and because I'm speaking out. She was not talking directly to me as an individual, but she was talking to Three Mile Island Alert which is a group that has been able to organize and focus the attention of people who are concerned, upset and this takes many forms. People call us after they've had miscarriages, we know of babies that have been born and have trouble breathing, we've been told that some have died, these are families, friends, health care agencies that have called us. We're compiling a list of many types of things that are a result of calls and people who come into our office, a lot of people come in and just sit and want to talk. They need that assurance that they're not isolated. Many people come up to me and say I'm isolated at work. Nobody talks to me, they don't believe me, they don't understand how I feel.

They're isolated in their neighborhoods because they're concerned. May people repress this.

CHANGE TO SIDE 2 OF TAPE HERE.

MR. MUSSELMAN: As well as the general feelings which we as residents are experiencing ourselves, and we as organizers in the community have witnessed, there are also a number of college related psychologists, sociologists, that have been working on these problems of the psychological aspect of Three Mile Island. I don't have the material here, but I could get it for you if you wish, of psychologists and sociologists down in Carlisle, and some up at Harrisburg Community College that have been doing definite, specific psychological studies on this area.

CHAIRMAN KEMENY: Yes, we would appreciate it if you would send that material to our Washington office.

MR. MARKS: Are these -- if you also have information with regard to the specific questions being asked, whose carrying out the studies, how far along they are and how they're being funded, in other words, the more details you can provide us about your information as well information that others are gathering, it will be greatly appreciated. And as soon as possible.

CHAIRMAN KEMENY: Thank you. Our address, you probably have it on the letterhead, but is 2100 M -- M for Mary -- Street, in Washington. Any other questions from Commissioners? Yes, Commissioner Lewis?

MS. LEWIS: Have you considered the impact, the economic impact of closing Three Mile Island down, and do you get the feeling that the people are willing to pay that price in terms of say a twenty-five percent increase in electricity rates and maybe a lot of industry moving out. I mean, you have a tradeoff situation. Do you feel that the people are willing to pay that price to see this facility close if that should become necessary?

MR. MUSSELMAN: Well, I think that there's a little more involved than just a tradeoff of nuclear power or higher rates. Number one, when nuclear power comes in, the rates go up a lot anyway. At least in every area that I've seen this has been true, because you have an expensive plant built and it increases the rates. The second factor that I think is pertinent is that Pennsylvania, by some information that we were getting at Three Mile Island Alert, prior to the accident, Pennsylvania was producing fifty-five percent more power than it needed, and selling it. So the increases are not coming from needed demand, but because companies are buying power from companies to send power to other states. It's not a power shortage. We are concerned with alternative forms of energy. We are concerned with working in a program of not only to switch power sources, but also to effectively re-program and retrain the people working in the nuclear plants into safer livelihoods. This takes a lot of work, it takes a lot of time, it takes a lot of research. But we do have



interest in those areas. And I think it's not a question of whether we're willing to pay twenty-five percent more. Sooner or later with the way things are going, we're going to pay twenty-five percent more anyway. The question is, do we want to subject our world and our ancestors to the dangers of nuclear energy? And I think to prevent that, it's worth virtually any sacrifice.

CHAIRMAN KEMENY: Thank you very much for your testimony. (APPLAUSE).

If you can just hold your applause. I know you feel very strongly in this. I'm just trying to give as many people a chance to speak as possible.

MS. JORGENSEN: Angela Herrder, please.

MS. HERRDER: My name is Angela Fogarty Herrder, I live in Middletown, five miles from the plant.

MS. JORGENSEN: You're going to have to speak distinctly into the microphone.

MS. HERRDER: O.k.

MS. JORGENSEN: On the left.

MS. HERRDER: I have two daughters, and I'm currently separated and a full time college student at Harrisburg Community College which is ten miles away from Middletown. My children go to school, a parochial school which is a mile from the plant. All right, now, maybe if I can tell you some of what I went through, you might understand why the people of this area, at least some of them, feel like they



can't go through any more. It's not whether we've been affected physically or not, it's almost like, we can't handle any more, you know, like we hardly know if we can stay here as it is. To make us stay, and something else happens, you know, it's almost too much to bear. Before the accident I was raising my daughters, and I was looking forward to completing my college down here at Capitol campus. And now I get so upset, even when I take the milk out to drink it. It's not the point of whether it's safe or not, it's the point that we've been lied to so much we don't really know what to believe. You say, when we first started this whole Three Mile Island thing, I had just seen the movie, China Syndrome, and right from the beginning, I was coming home from college when I heard about it, and I thought they said the water left the core uncovered for a while. And I knew, I could see just what happened in the movie, I could relate to that. So I got home from college about eleven and I called the school where my children go, and I said, you know, are you letting the children out, what are you doing? And they said, Civil Defense told us it's fine, don't worry, they're in the air monitoring, they told us let the children out for recess. So I went over and talked to my neighbor, she said, don't worry, everything's fine. I really had -- I wanted to go get my children, and I wanted to do what a good parent would do. But I wanted to believe. And that's what's happening here. You want us to believe now. But I believed then. So I let my

children stay in school. And I went and picked them up at three. That was Wednesday. I kept them out of school Thursday. And this for me was very difficult. Because one of my daughters had been sick all winter, and she'd missed a lot of school and I felt bad because I felt like maybe, am I being a good mother keeping her out of school when she'd missed so much, or am I being a good mother because I'm letting her -- if I let her go to school with the nuclear plant right there? So then Friday I finally gave in, and I let my children go to school. And I went up to college. And I went through my classes, and I worried all morning long.

Then, I got out of school and I went over to the college center, and someone said to me, I talked to someone knew, and I said how are you doing, and he said not so well, there was another accident. And I said what do you mean there was another accident. And he said well, they're not letting the people, they don't want the people to go outside. They want them to stay in. And he said you can't get down to Middletown. Well, my children were right there, a mile away from the plant. And I wanted to go get them. And I didn't know if I could go get them. I didn't know if I could get back. So I drove down there about eighty-five miles an hour, and everybody was running all over the highway, and my thoughts are at that time, well, what do I do if I get down there and they won't even let them come out to my car?

So anyhow, I got down there and they'd already let one

of my children go home from kindergarten. They let her go home on the bus and the other daughter was down there. So I picked her up and I rushed home wondering if my other daughter was standing outside the whole time in whatever was in the air. But when I got there a neighbor had taken her in. So we packed, and I told my eight year old. I just said, pack your clothes. Now, half the stuff she packed, she packed one pair of slacks, and we were gone for a week. I was just so upset I didn't care what she packed.

Then we went over to a friend's house and we decided where we were going to go, so we decided to go down to Maryland. We originally were going to go to Virginia, but then we decided to stop down in Maryland because we saw a hotel we'd been at previously, we thought, oh, you know, let's stay here, we know where the things are, we know that we can keep the children out of our way, they have a pool. Maybe that sounds funny now but we were just so upset that all we wanted to do was provide some kind of experience where the children weren't so upset. And also my sister lives in Maryland and I knew if I had to go some place that would be close.

So we stayed there, and we listened to every newscast. It was like we were obsessed with the whole thing. The whole next month, I kept my children down at my sister's for two weeks, and then I let them go up to my other sister-in-law's and registered them in school in Sunberry for two weeks. And I really didn't want to bring them back. I really felt

like, how can I keep them out of here? I thought of so many plans. But every plan inconvenient. Some relative which, they didn't mind it. But why? Why was I paying such -- I'm living on a student and support so I can go to college, so I can get an education and support my children with a good education. And here I am asking everyone under the sun to take my children because I'm afraid to have them back in the house.

Well, the other things that really upset me were, you listened to these newscasts. And they'd say, first of all they'd say, o.k., the emissions are under control. Then they'd say, we've finally got the emissions under control. Then the next day they'd say, we're sorry, we had an uncontrolled release. And then you'd hear a day or two later, the NRC who was supposed to be in control was mad at Met Ed because Met Ed had an uncontrolled release. What right did they have to be mad at Met Ed? They were the ones that were supposed to be controlling it? How did Met Ed have an uncontrolled release? Where were they? We trusted them to be on top of things. We're trusting them now to be on top of things. And like, what's his name, Walker? He said, you can't understand how we feel, and that's because you haven't been here. And they say, we're not going to have any more releases. You haven't been here when they say we're going to let you know when they are going to bring the plant to a cold shutdown. And then you find out they brought it to a shutdown and then they let you know a couple of hours later. We had to bring it down. When

weeks before that we were told we're going to let you know. We don't want to know later, we want to know now. We want to know ahead of time. We want to know. Maybe we want to get our children out of the area for that day or that week. We're afraid.

I've gone to all the meetings and found out that possibly there's not just nuclear -- there's not just radiation, iodine radiation, it's lots of things. There's lots of chemicals that could be in the area, or on the grass. I went to Washington, I contacted my government officials. But suddenly I feel defeated. I want to shut everything out, I just want to go back to school, I want to come down here to college, I want to say to hell with things, and I say, I don't even want to think if my children were hurt, or if they were injured. I just want to believe that my little girls are going to grow up and have little girls of their own. We've talked about it so many times whether they boys or girls or what they'd have. And I'd hate to think that there may not be a day when I'll see that. What's the use of me saying to my children, watch when you cross the street, watch when you go into a public bathroom, watch this, watch that, wash your hands, eat your dinner? What's the use of me saying that if I can't even let them go out and breathe the air? Or if I can't believe it's safe?

There was a time when I would believe the government officials. But now I don't want to even be asked to believe

them. I don't think it's fair to ask me. I think I can't afford to believe anyone. I think the only thing I can afford to do is ask, please, just let it shut down. Let us just relax for a while. You don't know what we've been through. You don't know how we feel. We can't even really look forward to a future. We want to. We want to be optimists. I know I want to be an optimist. I don't want to believe anything happened. But then if we delude ourselves into that later on we'll say, why didn't we move? There are people that wanted us to move. We didn't listen, we were too weak. And that's what I am. I'm too weak to move. I'm afraid. I don't know if I could sell my house. I'm paying seven percent interest, and I move in a house, I can't even move into a house. It'll be fifteen percent interest. And who's going to give me, let me rent a house when I'm not even going, when I'm not even working? And even if I was working, what would I make, eight or nine thousand dollars now. If I could continue my education I might have a good enough job where I could afford to go out on my own and support my children. And that's all I have to say.

MS. MARRETT: Would you say something a little more about your children, their response immediately after the accident, and currently?

MS. HERRDER: Well, my children, I tried not to let them know how upset I was, but when they were down in Maryland at my sister's I went down there, I kept coming back and forth

to school, and one of my -- my eight year old had written a thing, I do not like Three Mile Island, and she had this stack with stuff going out of it. And then since she was down there, I came back I guess a week later and she said, we were talking about it and she said, Mommy are you still worried about that? I tried to keep them out of the area because I was so upset, not because I was upset, I tried to keep them out of the area for their health, but I think I can say that my children didn't suffer that much because I really tried, I tried to keep them busy and tried not to discuss it in front of them. Because I don't want them to feel a sense of loss, of what might happen to them. I want them to be hopeful of the future.

CHAIRMAN KEMENY: Thank you very much for sharing this with us. (APPLAUSE).

MS. JORGENSON: Donald Hoxler, who we owe an apology to for spelling his name wrong on the program. I apologize.

MR. HOXLER: Good afternoon. Basically I'm here to -- as a private citizen, living three miles from Three Mile Island and within view of the cooling towers, to emphasize to you that we need to be educated and we need information very badly. We're all very interested in that you get the facts that you need and certainly I am interested in the recommendations and particularly if there is not a concurrence among you on these recommendations. I think that's very important for the public to know. As I read what President Carter had



to say about the Commission, I see three basic areas that you're investigating. One is circumstances leading to the accident and chain of events, number two, operation and safety in backup systems. And I tried to follow this as well as I could in the Washington Post, the Philadelphia Inquirer, the New York Times, the local papers. And perhaps to assist you somewhat, I'd like to tell you that the Philadelphia Inquirer on April 16, 1979 had an excellent article on a rush job, for TMI 2, getting it started. Also on Sunday, April 8, the Philadelphia Inquirer gave a very good chronological account, and I think that you are checking into how effectively the media looked into this. And I think this may stimulate further questions. Also, for example, in that April 8 account in the Sunday Philadelphia Inquirer, they gave a lot of other information such as the fact that Harold Denton owns a 1978 Dodge Omni.

The third area is the nature and adequacy of the response by the local government. Basically I don't think I can comment on the nature of the response but as far as the adequacy of the response I felt that information was given to us that many times it was conflicting as the lady before me had mentioned. But we were getting information.

Once again to get back to why I'm here, I think we do need to be able to get educated and we need more information. And so what I did on my own was I tried to read as much as I could about this. And I think we need to know more about the



nuclear accident. We need to know about nuclear energy and we need to know about what's happening about the ongoing clean-up. For example, about ten days ago there was a fire in a dump at Three Mile Island. Supposedly they found contaminated clothing that was not to have been buried there. The way I've heard about it, I've read about it in the Lancaster paper, and supposedly a member of the House of Representatives of Pennsylvania got the word from two Met Ed employees. And the NRC did say then that clothing did not belong buried there. And as a result I think we need to know as much information as possible. They create an anxiety. However, I think we can channel that anxiety appropriately.

As you can see a lot of these things create tension among us. And I think the psychological impact is very great. And so basically I tried to get as much information as I can on the pro and anti nuclear areas. And as I read more about it I became very upset and a little bit bothered. Some of the things I found out, for example, that number two, it was expected to be decommissioned in the year 2009. In other words it would last thirty years. I never realize that. I did not know that, and I've lived here in this area all of my life. I didn't know that they were going to have to decommission it in thirty years. I didn't realize according to the NRC that to decommission a billion dollar facility might cost fifty million dollars. In today's money. I also read and I found out that many of these nuclear plants have given the NRC

information that when the thirty years or forty years are up and it's time to shut them down, perhaps are they will really do is concrete them or weld them shut. This concerned me. Or perhaps cart them away. I read about nuclear waste and found out that since 1976, thirteen states have banned the burial of nuclear wastes. I read some more and found out that approximately twenty-five years worth of military and commercial nuclear waste, highly caustic, is not permanently disposed of. And there does not seem to be a very good idea of how to permanently dispose of it. So that we are safe many, many generations from today.

I also read about radiation exposure levels in 1953, the AEC in Utah said during a thirteen week period that a permissible exposure was 3900 millirams. And now today I read where an accepted standard is 500 millirams for one year. So evidently the exposure rates have gone down. Will they continue to go down. I read that the government is very much involved in fuel processing, waste disposal, and so I'm paying sort of for nuclear energy through my electricity bill and also through my taxes. Also the fact that a maximum fine is twenty-five thousand dollars. When there could be a tremendous nuclear catastrophe. Or perhaps a license could be lifted permanently of the utility.

So maybe some of this information is misinformation and maybe I stand corrected. But the more I looked into it, I read where the current federal budget is 1.26 billion dollars

for nuclear energy this year, and only three hundred and forty million dollars for thermal, wind and solar energy. I think we probably have to diversify our energy. We have to diversify how we're going to get it. The government coaxed the nuclear energy in 1950s to get involved, rather the government coaxed business and industry to get involved in the nuclear industry in the 1950s, why can't they coax other business and industries to get into other alternative types of power, and maybe show by example, using many types of alternative energy in their daily day-to-day business.

When you leave today, you're probably parked out here. If you look in the parking lot, you'll see the cooling towers at Three Mile Island. There are also three stacks there. Those three stacks are Crawford Station. This is owned by Met Ed. It was coal fired, now it is oil fired. Changed it over. I don't think it is operating any longer. Pennsylvania regionally, talking regionally now, Pennsylvania seems to have an abundance of coal. And Senator John Heinz, a federal Senator, United States Senator from Pennsylvania, wrote an interesting article in Environment Magazine, January and February 1979, about the benefits of coal to Pennsylvania. And even spoke of how the negative effects of coal could become positive effects. Now I realize that coal is dirty, coal had radiation, there are industrial accidents, there are lung conditions, there's a possibility of the green house effect, but at least we don't have to decommission reactors which could

be very, very expensive. At least we don't have to worry about a way to get rid of the radioactive waste so that we have a lot of it now. And so if I could just end with one analogy here. If our ancestors had accepted airplanes in the same terms that we are being asked to accept nuclear energy, they would have taken off in airplanes with only a promise that sometime soon the pilot would discover whether the machine could be landed safely or whether it would crash. I feel these actions are analogous to accepting nuclear energy before we know the front end and back end costs, before we know about the real effects of low level radiation, if we ever will, and before we know how to confine radioactive waster perpetually and infallibly. Now certainly the Wright Brothers did try to fly, but not a lot of people took a chance like this.

So finally my immediate concern right now is I believe this area would have a tremendous sense of psychological and physical release if number two is decommissioned safely and number one was converted to coal if that is technologically possible, or convert the station, Crawford Station into a coal facility.

Once again, I'd like to emphasize that we do need information and we do need to be educated, and I hope that all the facts will be looked at very, very carefully. Thank you.

CHAIRMAN KEMENY: Thank you. This might be an appropriate time for me to say something. The citizens of the region, as

I said in Washington at our opening meeting, of course, we don't know what findings and recommendations we will come up with, but one commitment I've personally made is that besides whatever highly technical stuff we will have to turn out, I'm determined that this Commission will turn out a volume that every single citizen in this country can read and understand. I very thoroughly agree with you that whatever we find we have to engage in a major educational process in this nation.

MR. HOXLER: Mr. Chairman, could I say one more thing please?

CHAIRMAN KEMENY: Yes.

MR. HOXLER: As I read the articles through the weeks I collected questions as I had read the newspapers, and I have forty-six questions here, that as I read the newspapers, questions about nuclear energy, nuclear industry, and particularly TMI, and I'd like to submit this.

CHAIRMAN KEMENY: We'd be happy to receive those questions.

MR. HOXLER: Thank you.

CHAIRMAN KEMENY: Thank you very much and we will look at your questions.

MS. JORGENSON: Bill Pfeffer, please.

MR. PFEFFER: Good afternoon ladies and gentlemen. My name is Bill Pfeffer and I live in Newburytown which is the other side of the river just beyond Goldsboro and my house

is approximately three miles from Three Mile Island Unit 2. What I came to do this afternoon was not testify on the physical accident that happened at Three Mile Island Unit 2. I was not in the control room, I was not in a position of power, either in a federal or state sense, nor in a utility corporation sense. Neither am I a nuclear engineer that has the background or the qualifications to tell you about low level radiation or half lies. What I would like to testify about this afternoon is the accident that happened in Poughkeepsie, New York. That's a small Hudson town at the Hudson River. I'm sure it got no press coverage. I know you would not have seen it on the eleven o'clock news. And there were a few of us up until this afternoon that know about it, but it's certainly just as real as the one down here.

Let me explain. Wednesday, March 28, my wife got a call at ten a.m. from a friend who said there'd been an accident. She moved with great repetitivy, took the children, called the schools and asked the children not to be let out. I came home at twelve, I got the children from school, and we were on our way at one o'clock in the afternoon, to Poughkeepsie, New York, where relatives reside. I'll do a short chronology for you if I may. Thursday was taken up trying to explain what were doing up there, and with little knowledge at our disposal with which to try and explain it, and with a maximum of unanswered questions from our relatives.

Friday was taken up at news radio broadcasts, and

television broadcasts and newspaper readings in an attempt to ascertain what was happening. We heard about gas, we heard about the pressure buildup, we heard about releases. We checked the wind forecast. We checked the wind activity on Friday. We pondered in our soul what the wind's direction was on Wednesday from four in the morning till one in the afternoon when we in fact escaped:

Saturday we hear more about the bubble. We hear of a possible hydrogen explosion. We are -- we take the car. We have it gassed up. We take the map, we mark it up. We stand a radio watch, that's my language for listening to the radio all of Saturday night. Sunday we hear of possible breach of containment, a phrase that has come to draw fear in many of us, core melt down. We go look at the map again. We have a route up to Canada. We have another route marked to Boston's Logan Airport.

Now it's clearly a question of which way the wind blows so we are now calling the meteorological office. We bring in the New York State Department of Health for a gieger counter reading of what it is if anything that we drug up to our relatives.

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MR. PFEFFER: And now I come to Monday, April 2nd which was the date of the accident. At six-thirty in the morning, I had to wheel my wife into the emergency room, suffering from severe chest pains, numbness of the right arm. The pulse rate was high, the blood pressure was high, the EKG strip ran negative. The diagnosis was traumatic shock. The prescription was sedation. The cure was rest for the mind. On Easter Sunday she left New York to return to Sweden from whence she had immigrated eleven years ago. She is now back as of Tuesday, May 16, based on our mutual judgment that little or no confidence in what we're told we feel there is a majority chance that we will not suffer any more damage by bringing her back. I can give you a little happy news. She's better now. She only wakes up in a cold sweat two nights a week instead of every night, and I saw her smile and laugh yesterday.

I suggest to you that accidents like Poughkeepsie happen by the thousands and unfortunately many of them I suspect are not visible on the surface. I'm afraid that this is the cost of nuclear power. Not only that it's more expensive at bill paying time, but I'm afraid uncalculated emotional fallout may represent a far larger expenditure in our human resources in this country. I challenge you the Commissioners to please for us, for my family, uncover the real perpetrators of the crime. The people who perhaps built and designed it, but did not tell us



of the risks at the time of consumption. And I ask you to unmask the guilty to save the same kind of guilt and the same kind of mentality that caused I'm afraid a cancerous path to go through Utah.

I'd like you -- I need you to shine the light of truth in the darkness of the lies and the misrepresentation and the deceit that has come to us from federal agencies, state agencies and energy utilities. I think you have to give us what we cannot afford to give ourselves, which is individuals who might be responsible for their actions. I feel in this country we have lost the ability to make people responsible for their actions. And if you could, and if you would give us names of people who represent in my judgment at least, criminal negligence, then I will be happy to spend the rest of my life savings to try and see if I can get them behind bars. Thank you very much. (APPLAUSE).

CHAIRMAN KEMENY: Thank you for being so very candid. I know it has not been easy for you to go through that very traumatic personal experience. Questions from Commissioners? Thank you, I very much appreciate your willingness to share that with us.

MS. JORGENSEN: We have one addition to the agenda, Mrs. Fran Cain please.

MS. CAIN: Good afternoon ladies and gentlemen. I'm here representing Glamor Poodles, a business that is located directly across from Three Mile Island. I live exactly

one-eighth of a mile from the cooling tower. We located here when my husband retired from the service, and I started in the poodle business. It's been eleven years of hard work. For the betterment of the toy poodle. We are now raising champions and coming out with champion stocks.

When the accident occurred on March 28, we did not know what to do with the kennel which would house approximately 26 adult dogs. Either strictly for business or for raising of the poodles and for showing. We walked over to the NRC at Trailer City which is at the Oxidation Center, and they suggested that we remove the kennel from the area, because they could not indicate at the time what the crisis would be. We also went out on recommendation our two veterinarians. I had submitted these letters to the ANI and they had just sent me back an answer stating that we might have sustained a substantial loss. We have sustained a loss, there's no doubt about it. Whether my stud dogs will be able to produce anymore because of the radiation amounts that they might have received, whether the female's chromosomes will be correct we do not know. This will take a period of a year or two or whether their offspring will be able to produce.

I also have a fifteen year old girl. We evacuated the kennel because we had to, but we felt we had to, she went along. And also here for the sake of my child and my neighbor's children.

TMI has been

nightly. They start

approximately when it gets dark and they stop shortly after daybreak. I can see this from my dining room window. The used I do not know what is becoming of this at the present time. I presume that they might be dumping some of this.

Once shortly after the TMI incident occurred, we did get a taste in our mouth. We also felt nauseous. The day that the scanning was done, there was nine counts that were extra high and they brought their equipment back into Middletown for the people to be rescanned. At that time we got another taste in our mouth. My daughter was upstairs eating breakfast. She got a taste and she said Mom, something is tingling in my mouth.

The girl that runs the grooming shop that does not live at our house was in there. She got the same taste and she became nauseous. I called Metropolitan Edison and they did finally come into me. They came in with gieger counters. They went all over the premises and I must say they were very nice to me. They went upstairs, they went around the puppies' cages because the dogs were back after nine days' stay boarded at other locale. They took my water, they ran tests on the water. Several days later they called me back and they said to me that they could not really find anything unusual, but that there was iron, my pipes were rusty. My pipes were not rusty. This was only once. Why wouldn't we have had rust every day or every so many days? This was from the 131 I'm sure, being

released, and the particles broken up and this was the taste that we were getting. This was real. We were not out of our minds, and we did not imagine this as they told us we did. There was also an odor. What kind of an odor I cannot be sure but it smelled like iodine to me.

As we live this close to Three Mile Island, since Unit 2 has been in action, when they release this pressure, it sounds like jets taking off and it has lasted for approximately five to ten minutes. This has woken us up out of a sound sleep at night and it has actually sent vibrations into the house. We could actually feel the house vibrating. This is not imaginary.

The real estate where we are at naturally has depreciated. They say it has not but how can I sell my business today and my home when it will never be out of sight or mind. We live directly across from this place.

I think that a lot of people are missing a lot of the issues. They are getting petitions up. One or the petitions or something should be done about the liability insurance. Any nuclear plant that is in operation should have liability insurance. The way it stands today if we had lost everything we would have gotten, maybe what, one or two dollars back on the thousand. We spent our life savings and we've worked hard. We cannot afford to lose all of it.

There was a truck accident. One of my customers came in with a dog to be groomed one day and the railroad track

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and the main entrance to Three Mile Island -- and this is true -- Three Mile Island and Metropolitan Edison they did try to hide this -- as the truck was going in, the customer saw it, the train came by and did bump the truck. If this had been filled with waste coming out, what would have happened? And something had gone wrong and the truck had tipped over, or the truck had gone haywire.

The property has gone down in value. There's no question about it. But I presume our taxes will stay high. I feel that Metropolitan Edison is largely responsible as well as NRC, because the way I understand it NRC was not over there checking regularly and I feel this should have been done. I also feel that the people in the operating room should have better training and skills before they operate. This is the land of the free, I think you should give the American people to be free and let them live that way. And if it has to stay open, at least have the right people working there and have the right control. The way it is right now it's just like I would take a child and put a child in a car and say steer the car and go. A child does not know how to brake the car, and Metropolitan Edison apparently cannot brake Three Mile Island right now. Thank you. If there are any questions I'll be glad to answer them.

CHAIRMAN KEMENY: Questions? Thank you very much.

MS. CAIN: You're welcome.

MS. JORGENSON: Jaqueline Riegler.

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MS. REIGLE: Hello. First of all I'd like to start just by saying - - - (interrupted).

CHAIRMAN KEMENY: Excuse me. Could you try moving the mike down a little bit.

MS. REIGLE: O.k., is that better?

CHAIRMAN KEMENY: It's the one that's sticking up on, the one that

MS. REIGLE: Is that better?

CHAIRMAN KEMENY: Thank you very much.

MS. REIGLE: O.k., As I started, I'd like to say by starting, I've been through two floods, a tornado, two car accidents, and they've all been handled very well because I'm a fighter. But I cannot come to terms with this Three Mile Island - - - (interrupted).

MS. JORGENSON: Excuse me. You're going to have to move that mike down a little. We really can't hear you.

CHAIRMAN KEMENY: Could we have a staff member help a little bit, please?

MS. REIGLE: Is that better now?

CHAIRMAN KEMENY: Yes.

MS. REIGLE: Did you hear what I said?

CHAIRMAN KEMENY: No, would you start again? We'd appreciate it.

MS. REIGLE: O.k., As I just said, I've experienced two floods, a tornado, two car accidents, and I've handled it all very well. I'm a fighter. But I cannot come to terms with

this Three Mile Island. I live four houses down from the north gate. And I find I cannot coexist with this monster in my back yard. I've had to decide whether to be a realist or an ostrich. So I'm here trying to be a realist. Before I go on, and I don't want to forget the fact that the airplane pattern, I'd like to call your attention to the airplane pattern that goes over my home and the power plant. And just as a citizen --- (interrupted).

MS. JORGENSON: Excuse me. Could you slow down just a little bit? The reverberation is so difficult to hear. I'm sorry.

MS. REIGLE: Well, I was saying, the airplane pattern that goes over this power plant. I'd like this Committee to take that into consideration, and I don't want that factor to be missed. Because you have to live there to appreciate the fact, watching these airplanes lowering to go into the airport and just literally missing the towers. In fact, living there as long as I have, I thought that accident would happen before this one. So this is something to really take into consideration. I can't believe they were licensed to begin with. Because of that factor alone.

O.k., I'd like to say also, I love this country. I'm one of those minorities whose eyes fill up with tears when I hear the Star Spangled Banner. But I sit here in total loathe and disgust for the legislators, all parties, I have worked very actively in political parties. I sit in disgust for

those in authority, the fat cats who are lining their pockets with the sorrow and misery of other people. I can't understand why human beings in a civilized country such as ours have a total disregard for other human beings. Why we even have to sit here and discuss closing a power plant that should have been almost an instant decision. I can't fathom that. As a private citizen.

I've deliberated in what capacity I should speak. As a mother who will worry till my death about the genes and chromosomes of my child, my grandchildren, as an angry victim who has accumulated a library of 300 preventive medical books, who eats health foods, I think it's a joke. It's an irony that I probably will be done in by something that I cannot taste, feel or see. This is a laugh.

So, I decided to come as a property owner. Because unfortunate as it is, people's ears are in their pocketbooks. And legislators will hop on the economic issue before the health issue. I would like to propose a different aspect to the problem to this distinguished Committee. Would you propose to the President, the federal government, Met Ed, whatever, to have some consideration for us in that quarter mile parameter. Three-fourths mile parameter, whatever.

The nightmare still continues for us. It's difficult to put into words how one feels. Feelings are abstract. I invite each and every one of you to live in my house. It's nicely furnished, I just house cleaned before the accident.



See how ominous it feels to see these towers, experience the sirens, see them emit the smoke at night. They sneak it out the fire trucks, like I said, they sneak the emissions at night. The trucks that sneak over onto the island with their lights off before they get to the island to pick up radioactive waste. Ungodly noises. But these noises have been happening since they fired up Unit 2.

I have here a letter from Met Ed. I have called periodically every two-three weeks about these noises. Not because of the noises but because of what they represented. I was told that they were generator shutdown. Now these noises were different, but they still gave the same reasoning. I have a letter here from Met Ed because I have gotten them out of bed, I have called Lebanon, I have called anybody who would listen. Some of them sound like thirteen supersonic jets. It's like Chinese torture, it's so piercing. You think that you're going to lose your mind. So I have a letter here, they're telling me from Met Ed they're find, don't worry. It's a very good written letter, it's a public relations letter, but we've got to remember. Communists aren't the only ones who use propoganda. This is a propaganda type letter.

Because of my continuous telephone calls, they decided to send a form letter to the area residents because of these noises, which never stopped. But what these noises indicate is something faulty on the island, that was triggering to be shut down. And they were very frequent. Now, just to tell

you of some of the plight of some of us that live close to the island, I've had swollen lymph glands, I've had laryngitis, sore throat. Some people were bleeding from the colon, which your iodine enters through the colon, settles in your thyroids, but it enters through your colon, and for those who say this is psychosomatic I invite you to bring the dog. I have a collie dog, and whenever anything is going on at the island, this dog becomes very frustrated. He paces, saliva comes out of his mouth, he's not going into a seizure, he has done this several times. The one time he woke me it was Tuesday in the morning, 2:20. I looked out the window and I saw smoke being emitted below the cooling towers. This indicates probably more lethal release than coming from the cooling towers themselves. What that is I don't know. It lasted for twenty minutes. I telephoned the neighbor. I said would you please look out the window. I said, at this point, I eat, drink and think Three Mile Island, maybe I'm hallucinating myself. So she verified this fact.

I telephoned Representative Reeds' office the next morning. I have telephoned there several times. They've reassured me I'd receive an answer, but I've never received answers to any of this. Now this is twice that these smoke emissions have happened. It is not the same consistency as the cooling towers, it is much denser, thicker, almost cottony. The release from the cooling towers is clear, sort of transparent type. And as I said, come down and live in my house

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to appreciate what is going on.

So what I say is there is some type legislation for us for somebody to buy us out of our property, anything like this for us property owners. I have moved my son and my dog. I am renting a home. At this time I can't give my home away. I've incurred expenses that I don't know how I'm going to pay. I still go on incurring expenses I cannot afford. Because I am renting a home and I am trying to maintain my home, at least until the property value goes up.

Class action suits, they're fine, but they take time. Litigation takes time. And time doesn't put money in our pockets. So for my pursuit of happiness that the Constitution tells us we should have, I think we should be allowed to have the option of whether we want to stay or go. I cannot sell my home. I've had a realtor in. The Radiological Health Department has sent the meters through my home. Of course I could take them and shove them. They tell you don't do it. But it doesn't make the property value go up any more.

So that's about it. I just want your interest at this time. I could go on and on about what's being going on at the island. It would take me forever, because when you live there you're more so in on it. As I said, the ungodly sirens, the noises, the ominous feelings, the almost death-like atmosphere. But what I'm asking now of this Committee is some type of a help for people that live there that want to move and cannot afford to. I have a mortgage at six percent. I pay

eighty-two dollars a month. I have blood, sweat and tears in my home. And I've got to move. You cannot coexist with the island and I don't care what anybody says. And I defy anybody to live in that home for one week. And see those cooling towers and have the view that I do. You don't even have to hear or see anything. It's just a feeling around the place. I don't see little bunny rabbits anymore. It was springtime. They should have had their litters. They should -- I would drive in the driveway, I'd see sixteen to fifty bunny rabbits, families of ground hogs. I don't see them. I'm not saying they're all dead. I don't know where they're at. Maybe they relocated like we all should. I don't see basically birds. A few crows. Of course it's good, I don't have any flies either. So I guess out of every evil comes some good.

But this is my proposal to you. As an American, we should expect some help from the government in this case. This is a test case. This has not happened before. I think we should try and show some humanity for the victims. We took the Vietnamese in, which is fine, I would have given them my home. We fed and clothed the Indian Town Gap. We didn't differentiate whether they were six or seven. What makes my child less precious than a five-six year old? I have incurred -- I have a seventy-nine dollar telephone bill, a hundred and fifteen dollar gas bill. These are just -- I could go on and on. That I haven't even paid yet because of this Three Mile Island incident. To say nothing emotionally.

And as I said, they were fed, they were clothed, they were given money. And we are being totally ignored. Nobody pays attention to Londonderry residents. The news media carries Middletown, it carries Harrisburg, nobody pays attention to us, and especially us that live so close. The people that are pro-nuclear, let them buy my house, or at least propose some kind of legislation where we could be bought out. If we don't want to move let them stay there, but we should be given the option as American citizens. And I guess that's all I have to say. I don't want to keep going.

CHAIRMAN KEMENY: May I ask you a question. On these references to rather dense emissions you said below the cooling tower?

MS. REIGLE: Yes, I did.

CHAIRMAN KEMENY: I believe you used the word on Tuesday but it wasn't clear to me whether this was the Tuesday after the accident or fairly recent.

MS. REIGLE: No, it was Tuesday, I guess three weeks ago. You see, I've been away a week now. I've moved. I've had to move to get peace of mind. If you call Representative Reed's office he should have the exact day, because I telephoned there on two or three instances. I telephoned his office with the report that radioactive waste is being carried at night. I mean, I can't believe people sit by and let this happen. I guess they truck it through Middletown. I don't know, but you know, I am tired of talking to authorities. This is my last

effort, and then when I am done, I am going to go and talk with someone upstairs, who has power over all of us. Because talking to you people almost makes me feel -- as I said, I'm very patriotic, but I'm like asking the left hand to watch the right hand. But I'm still talking to the same stem. And I just -- if you people do something, it will be a blessing and I'll be very happy. But I'm really -- I'm going to wait and see and I really doubt it. You've experienced the problem yourself -- can't get subpoena power. I mean, that's just one problem. You can imagine how we feel, being lied to and if they're going to have an emission, at least why can't they work with you? Why can't they say, we're going to have an emission at two o'clock. Would you like to leave by one and maybe not come back for eight and a half days later. Whether it's iodine or what. Two or three weeks ago they released three hundred and thirty thousand picocuries of iodine. It was so disoriented I couldn't tell my window from my door. I have to listen to the news to know that something's going on over there. I can't put a label on it, but I don't have to turn on my radio to know how I feel. And as I said, forget psychosomatic, because you bring an animal down, and you'll see an animal, how nervous they get. And you know the epitaph on the tombstone of a hypochondriac. I told you I was sick. And when I hear psychosomatic I get very angry. I have a girl friend who has an eight year old. She has children. And she took her eight year old to the doctor. He says, oh, her

throat hurts because of sympathy. I can't fathom this reasoning. I can't believe this. I've never experienced a situation like this and it's very hard to handle.

CHAIRMAN KEMENY: Commissioner McPherson?

MR. MCPHERSON: Did I understand you to say that there is an aircraft pattern directly over the plant?

MS. REIGLE: Yeah. It -- well, they've rerouted it over my home, but you'll have to go down to appreciate what I'm saying, which is almost saying like, from there to there, and it doesn't mean a lot. An aircraft carrier in trouble doesn't keep to a pattern, and it does go over that. This was presented to NRC. They totally ignored this. I mean, the NRC is a total criminal as far as I'm concerned. They've ignored the whole thing. All these different were brought to their attention. But that to me is a big one because as I said if you sit there and watch those planes come in, I'm surprised that accident didn't happen before this, very truthfully. And that will be next, believe me.

CHAIRMAN KEMENY: Any other questions? Thank you very much.

MS. REIGLE: Will you propose something as to what I've asked? Something for the residents within the three-quarter mile parameter? Something to --- (interrupted).

CHAIRMAN KEMENY: I'm sorry. I don't know that, but we are certainly going to take all the testimony that we hear here into account before we're going to make recommendations.



I mean, I can't answer at this moment what the recommendations are going to be.

MS. REIGLE: Will you keep it at the top of the priorities?

CHAIRMAN KEMENY: Believe me, after we go through a day of testimony like this, we are certainly not going to ignore it in our report, I can assure you of that.

MS. REIGLE: I mean, we're not two hundred thousand people, but we are people down there that are left that have to almost -- I'm paying rent now but I can't afford it next month. I've got to move back. And this is the situation. So I think this is, they owe it to us. Somebody owes us. Whether it's Met Ed or the federal government for licensing these plants. Somebody should -- we shouldn't be ignored in this situation. Thank you. (APPLAUSE).

MS. JORGENSON: Harry Machita.

MR. MACHITA: Most of my testimony was covered by Three Mile Island Alert in the previous testimony. All I would like to say is how it affected me as a home owner, property owner, and a father. I live a half a mile away from the island, since 1964. And of course I was concerned when the nuclear power industry wanted to build a plant there where they built it and we've asked the NRC and Met Ed for some information so we would know what to expect and how it would affect our lives. All the information we got was good. I didn't see any reason to move or get alarmed at that time. However, it wasn't until 1969 -- 1976 when a Unit 1 was opened up that



I realized what would be considered normal instincts and normal noises for industry was not normal for the citizens who live within a half mile radius. Some of the incidents scare the daylights out of you. They happen at unexpected times throughout the morning hours and as I lived there, progressively things got worse. Up until 19 -- well, March 28. I was able to cope with the situation. Now after I came back from two weeks of evacuation, I thought within a week or two that the family would regroup and get into the mainstream of life. I found out that it was uphill battle. Conditions are not the same. My home is not a home anymore. And the family is slowly falling apart.

I thought perhaps another week or two would bring us together again, but as time goes on I can see that we're progressively falling apart. Friends and relatives we visit, the shopping centers we go to, and as a last resort we come home to sleep. Sometimes we don't even sleep. Because you don't know how to relate the normal industrial noise to what's actually going on at the island. For example, we're told that although it is not a cold shutdown and equivalent to a cold shutdown, but there's nuclear fission over there, and certainly they can't control or contain the water level in the containment building, how am I to believe that they're able to contain the situation that exists over there?

So, as time goes on I decided that regardless if the plant would open up or if it would not open up, I've decided

that I'm going to move. I'm still not too old to assume a twenty year mortgage. The cost will be enormous. My mortgage payments will be higher. Assume a mortgage at ten percent. Maybe eleven percent. But it's either that, or living under the present conditions, which I find intolerable.

Instead of the family getting closer together, we're slowly drifting apart. And maybe if I wait any longer, I won't have a family to move. My wife, she would relocate in any area closer to work and make a home for my daughter because of the gas shortage and maybe it would be better for me to relocate where I'm working. Because of the gas shortage. But I feel that after twenty years of being married I don't like to even give that consideration. And yet I feel helpless. I don't believe that I had anything to do with this. I wake up at night and wonder how did I ever get in this position? I hear President Carter talk about human rights. Human rights in the middle east, in Africa and Russia. What about human rights in Middletown? I don't have any more to say. If anybody has any questions, I'll gladly answer them. I want to thank you.

CHAIRMAN KEMENY: May I ask you a question? It may sound irrelevant. I'm just curious. What is your occupation, sir?

MR. MACHITA: I'm a warehouseman.

CHAIRMAN KEMENY: A warehouseman?

MR. MACHITA: I've got twenty years work and investment

in my property and my wife has about twenty years of work and investment in that property, and that is the only equity I have for the forty-four years I've been here on this earth. And the situation varies. People in the ten mile area are not subject to the same conditions where the people who live in the half mile radius.

For example, it's like a storm that passed through, probably, for you people. The storm is gone, but the situation is just as critical as it was on March 23 for the people who live in that immediate area. Any further questions?

CHAIRMAN KEMENY: Ms. Marrett?

MS. MARRETT: Did I understand that you and your family did leave the area for a while?

MR. MACHITA: We left on our own for a period of two weeks.

MS. MARRETT: Could you say a little bit about what led to your decision? What kinds of things made you certain that you should leave?

MR. MACHITA: Well, the noise to begin with. The towers in the day that I took away -- it was just a routine way of life before. And now they seem monstrous. Much bigger. Much deadlier. And the helicopters going over at night, sampling the air. The public address system that keeps me awake at night. These are the things that aggravate me more now than they did prior to March 28. Does that answer your question?

MS. MARRETT: Yes it does. One other question. You

mentioned I think at the beginning that the TMI Alert Group had presented most of what you wanted to capture in terms of --- (interrupted).

MR. MACHITA: Well I --- (interrupted).

MS. MARRETT: Just one question. Are you a member of TMI Alert? And have you been --- (interrupted).

MR. MACHITA: Yes I am. And I was one of these citizens that -- one of the many citizens that call up and express things, anxiety and fear and ask for answers. And it was very well put. By those individuals who represented the Three Mile Island. And it was well, that was most of my testimony here, and it was well covered.

CHAIRMAN KEMENY: Thank you very much. (APPLAUSE).

MS. JORGENSON: Sandra and George Rineer.

MS. RINEER: I'm Sandra Rineer, this is my husband George and we're here on behalf of our children, Michael whose eleven, Steven whose nine and Michele who's four. We live in Londonderry township and we're three miles away from TMI. First let me say that I was one of the many people who accepted the fact that we needed inexpensive energy and believed that nuclear energy was our best bet since we were assured it was perfectly safe. I thought anti-nuclear groups could have used their time to better advantage, until I became a victim of that safe nuclear energy.

My nightmare began on March 30. I realized that the first incident was March 28, but I also remember not being alarmed.

I keep a journal and wrote on that day that there had been a radiation leak at TMI, but was assured that radiation amounts were very low and below dangerous levels. To further emphasize my unconcern I made no entry about TMI on March 29. My entry for the 30th is very different. It begins: This must be the most horrible day of our lives. I heard the first report of an uncontrolled emission of radiation at nine-thirty a.m. and felt absolute terror for the first time in my life. A terror that has stayed with me for days. Nearly hysterical I called my husband and he told me to get our sons out of school and to leave. I tried to be rational, I decided not to panic, and I would wait for further reports.

By 10:00 a.m. the reports were more ominous, so I took my daughter, went to school, picked up my sons, and went to a friend's home several counties away. I spent the day glued to the radio. I noted in my journal, reports all different from the governor, Met Ed and NRC. They are confusing and more alarming. My nerves are shattered. I keep thinking, what if we can never go back. I can't bear the thought. Can you possibly imagine the magnitude of facing the possibility of losing everything and never being able to go back, ever? We had to face the possibility that we were left with nothing but our lives, and those were in serious jeopardy as a result of exposure to unknown levels of radiation for over two days. We finally got our family back together later that day at my in-laws' home, where we remained until the governor's all clear

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announcement. My husband had to commute between Lancaster and Middletown every day and was working twelve hour shifts and week-ends, so we saw very little of him those eleven days away from home. Besides the anxiety I felt for everything else, I also had to worry about him being so close to TMI every day.

Somehow we survived those eleven days, although I'm not sure how. I don't remember too much about them, really. I never got far from a radio and I still don't. Now that the shock's worn off and we're putting our lives back together as best we can, we find we've got a fight on our hands. I'm angry and I'm outraged to think that corporate profits are more important than the lives that we have, and my children's lives. We've been led to believe that nuclear energy is safe. I can't accept that any more. I realize no one was killed, and as some arguments go, that should prove nothing serious happened. In twenty to thirty years we'll know for sure if no one was killed, not before. Some people feel nuclear energy can be made safe. I don't believe it can, and even if it could what about all the waste that is created?

Most people consider planes and cars to be safe but accidents do happen and people get killed. The only difference is, nuclear accidents carry the real risk of genetic effects in future generations. I marched on Washington on May 6 because I feel my children deserve a long and healthy life, one free of the fear of cancer or leukemia as a result of

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radiation exposure. Some people are willing to pay any price for their electricity. But for my children to become a statistic as a result of a nuclear accident, it's too high a price for me to pay.

We do not need nuclear energy. There are other options. All of them with most none of the consequences nuclear energy carries. I hate being a statistic but that's what I am. But I'm determined not to be one that was led like a lamb to slaughter. I intend to fight. I may have to live near TMI but I don't have to accept the threat it poses to me and my family. Some people feel it is useless to fight nuclear energy. I feel I must do everything in my power to stop it. I owe it to my children, and we have a right to expect life, along with our liberty and our pursuit of happiness. And thanks to the Karen Silkwood decision yesterday, I feel we have a chance to make those who take the liberty to play with our lives be held responsible for the consequences of their actions.

We feel Met Ed should have their license revoked and that TMI should be decommissioned due to their recklessly endangering the lives of my family and of the residents of this immediate area. Thank you very much.

CHAIRMAN KEMENY: May I ask you a question because we're trying very hard to understand, those of us who did not live here what you felt like. If I recall correctly, your chronology was on Friday you made the decision to leave. What exactly was it that persuaded you that you should leave?



MS. RINEER (Continued): For some reason, it just hit me right between the eyes - I don't know why, but it really struck me.

CHAIRMAN KEMENY: This was on radio or on TV that you heard this?

MS. RINEER: I heard it on the radio.

CHAIRMAN KEMENY: You heard it on the radio.

MS. MARRETT: One of our charges is to examine the public information area. Could you comment somewhat - apparently you relied on the radio - would you comment somewhat on the usefulness of the reports or would there be any recommendations you would like to see made with reference to the way in which information was reported?

MS. RINEER: I think the news media did the best they could with what they had. I felt completely uninformed - I mean, the reports changed minute by minute. I really think they did the best they could, I just wish they had been given more accurate information to pass along to us. I think they did a good job in trying to maintain calm, but in my case it didn't do me much good, it really struck me, but I do think they did a good job; I just think they needed more information to work with.

CHAIRMAN KEMENY: Dr. Marks.

DR. MARKS: I'd like to - I wonder if I can explore a few . . . another aspect. It seems to me, as I



listen to you that a great deal of your fear centered on the fact that you just didn't understand what was happening, and still don't feel that you have an understanding of what's happening. Is that right?

MS. RINEER: A lot of it. We had such a lack of trustable information, and I was never - I never took the time to find out about nuclear energies before this all happened. Since, I've learned a lot, but it - our basic feel, I think, stems from the fact that we don't know what's going on, we don't understand radiation and its consequences to begin with and coupled with the fact that we are not getting true reports - we are not getting true statements from the powers that be.

DR. MARKS: Do you think it would be useful to really have a major effort - obviously in this area as well as nationally, too - to provide more accurate information as to what is going on in relation to a nuclear reaction plant? Do you think - I'm not certain how you do it - but if we could do it, is this something that you would like to be done.

MS. RINEER: Most definitely I think we need that but I also hesitate to dump everything in the Government's lap because right now there's a lot of people that aren't too sure they want to trust the Government on anything they tell us, because of all that's happened, and we tend

to lean towards authority, more or less the black sheep of the Government people who are involved in the Government and decided to get out because they did not like the cover-up or whatever that was involved and those are the ones I think we're getting our information from now, and those are the ones we tend to believe now. So I think we do need an education program, but it's going to have to come from many different areas - many different people.

DR. MARKS: Thank you.

CHAIRMAN KEMENY: Could I pursue that, because I think Dr. Marks, this is one of the issues that bothered me all morning, and the testimony, and I think you may be the right witness to ask it from. First of all, you know we are not the Government, President Carter appointed an independent commission - the moment he appointed us even President Carter can't tell us what to do. But, I tried to probe this morning as we heard again and again public officials say they had lack of information. I tried to probe - they made very good remarks but there should have been an automatic system by which public officials would be notified and one can see the merit of that recommendation. I then tried to ask, who should man that information booth, and sort of got conflicting answers on it and, in view of what you have just said, it seems to me you would be a perfect person to ask. Whom would you have liked to

have had there, since you don't trust the utility, you have your doubts about the Government, what kind of source could we have had there that would be believable to you?

MS. RINEER: I really wouldn't know where to start. I keep remembering the civil defense from my childhood. There were a lot of things we -- I can remember having -- in school we had bog tests, just like we had fire drills, we had bog tests, and a lot of the things were civil defense oriented. We have civil defense - they do tests on the radios and things, and yet, in a situation like this it never really came down to using civil defense - I think something like that would almost be necessary. I really - I wouldn't even know where to begin, really. I - just like anybody else can't - I really don't know.

CHAIRMAN KEMENY: Thank you.

MS. MARRETT: This is going back in ancient history, but it does interest me, you said that originally you believed that this was totally safe. Do you think that's something that you wanted to believe, or was the impression, the direct impression given to you, that this is a fail-safe operation, that nuclear power plants can't go wrong? Do you remember what happened in those days when you were part of a community deciding whether or not to put a facility like this into the community?

MS. RINEER: I don't think I was in on that decision - we moved - I think we moved into the area after that was taken care of. But, as far as nuclear energy was concerned, I think I had some questions about it. But it seems those other one had many answers for us when we questioned, and if they tell you it's all right, it's safe, they can control it, then of course I think up to a certain point you just want to believe what you're told. And, you just can't - you don't feel like taking on the world when it concerns your energy or things like that - you figure there's always a small group of radicals who are going to take care of stuff like that, so let them worry with that. I really had my doubts, and yet, I thought, well what do I know, I never went to college, I'm not a nuclear physicist, I guess if they say it's OK it's got to be OK.

MS. MARRETT: How do you feel about the experts now?

MS. RINEER: I'm still living in some of that terror. I mean, I wish if we could afford it, we could just pack up and move out, but running away doesn't always solve problems either. I think it's better for me to do what I'm doing now, facing them head-on, doing what I can. I feel it's necessary, I owe it to my children, at least they won't accuse me of copping out, although I have talked to a lot of people who feel they need their electricity and that's the price we have to pay. I don't really think that we should.

CHAIRMAN KEMENY: Dr. Marks.

DR. MARKS: Could I - I just want to make sure I understand. What sort of things are you doing to cope with this situation now, actively?

MS. RINEER: I think the original thing I did was my March on Washington. I've been in touch with friends, neighbors, in the area. We discuss it almost - not almost - we discuss it daily. We marched on Washington. As a result of that, a small group got organized in our township to pass petitions. We attended the polls last Tuesday to get signatures. We set up a meeting date - we're going to have weekly meetings to continue circulating petitions. I'm here. Whatever else comes - I intend to go to some of the HACC lectures to catch some - the HACC - Harrisburg Area Community College - HACC is a local term - we've shortened it. They have lectures going - I want to go to some of those. I keep seeing different meeting dates listed in the papers so I'm just going to stay active in it and on top of it in every way I can.

DR. MARKS: This morning we heard testimony from Dr. Gross whose Provost of Penn State University, Capitol Campus, indicating that they were organizing a large series of seminars, discussion groups and lectures. I don't know where you live and so on, but is that the kind of thing you would find useful as a part of you efforts?

MS. RINEER: Indeed, yes. Because the series that that Harrisburg Area Community College has going involves many different aspects of the TMI incident. They're going to have some of our Congressmen there for questioning, they're going to have - study the psychological and emotional affects - they're going to study the physical affects - they're going to study who's going to pay for it - it's going to be an overall picture of the thing, too.

CHAIRMAN KEMENY: Commissioner Trunk.

MS. TRUNK: How has this affected your children?

MS. RINEER: I think the first weekend after March 30, and up to like April 2nd, the situation was very tense and the children were very tense. They suspected something - they didn't know what they were afraid of, but they were afraid, as well as we were. I think right now things have gotten pretty much back to normal because that's the way we want it for the children, but they still hear us talking about it, they know we're doing things that we never did before, and they know there's a difference in our lives, they know things have changed. But I really think for the most part the kids are back to normal.

CHAIRMAN KEMENY: Governor Babbitt.

MR. BABBITT: Have you continued to keep your diary?

MS. RINEER: I do, constantly. I have for several years - I've kept one.

CHAIRMAN KEMENY: Thank you very much for being so extremely frank with us.

MS. JORGENSON: Dr. Charles Cole, please.

DR. COLE: Thank you. To set the stage for the commissioners here I would like to say that I am testifying as an individual today - I'm not representing any organization or anything. I would like to speak in support of continued safe use of nuclear power. I'm speaking from several points of view. First, as a father and a Middletown resident who remained in the area with his children during the incident; second as a consumer of electric power; third, as an environmental engineer; and fourth, as a very concerned environmental scientist. As an environmental scientist, I've had formal training in radiation safety and health, and I'm aware of some of the risks that we take with nuclear fission. However, no activity of man is without some risk. Environmental scientists attempt to weigh and balance these risks, sometimes opposing each other, and attempt to relate the cost of the benefit. I believe that the existing nuclear power plants, including TMI, should be systematically reviewed for both safe construction and operation not all arbitrarily shut down. Upon review, the deficiencies must be corrected to a reasonable level of risk and the plants re-started. Plants currently under construction should have any necessary



safety corrections made, and be completed. During the time that the necessary safety changes in existing plants, plants under construction are being made, re-evaluation of the cost effectiveness of nuclear power versus alternate energy sources should be made. It is possible that we may find that nuclear power may not be the panacea to our energy problems that we once imagined. On the other hand, it may still be.

During the days following the incident at Three Mile Island, I became aware of a considerable ignorance of radiation and nuclear power by the general public. Possibly, more education to the public as to what radiation is, and its perceived benefits and harmful effects would be helpful to reduce this fear.

Summarizing, I feel I can live with nuclear power. Some vocal few might say that we will not live with it. I think the statistical increase in malignancies, etc., caused by the incident appears small. Greater chance of death possibly resulted from bringing us all here for these hearings, each one of us. I am much more concerned about the insanity of nuclear weapons, that are at this moment pointing at us, that upon their activation may annihilate, for instance, Harrisburg. If we once believed that nuclear power was fail-safe, how can we now believe that an accident with a deliberate creation for destruction will never occur?



Let this incident be - guide us towards safe nuclear power and nuclear disarmament. Thank you.

UNKNOWN SPEAKER: Dr. Coleman, you say you are an environmental scientist. Where do you practice your profession?

DR. COLEMAN: At the University here.

CHAIRMAN KEMENY: Commissioner Trunk.

MS. TRUNK: How would you go about educating the public on radiation? That's very hard to learn.

DR. COLEMAN: I beg your pardon?

MS. TRUNK: How would you go about educating the public on radiation?

DR. COLEMAN: How would we go about it? I am presently working on something for the EPA where they, after developing many programs for water quality management, realized that they were not going to be accomplished without getting at all the citizens' advisory groups and have recently decided to spend hundreds of thousands of millions of dollars to educate the people and I think it's going to take a grass roots approach, especially in the areas near nuclear power plants, to explain to people what some of these statistics mean as far as the harmful affects. The statistics can be very misleading and I think this is one of the biggest problems when you're talking about weighing relative risks to things, but I think it's going to take concerted effort.

and money to go out and train people - not train people, but educate them as to what nuclear power is and the nuclear fission and some of the isotopes and things that are produced by it.

MS. TRUNK: Should we start this in high schools or junior high schools?

DR. COLEMAN: I think definitely it should be pulled in as much as possible to the science courses, but you cannot necessarily cover everything in the lower levels of education or you start diluting back to the point that it isn't meaningful.

CHAIRMAN KEMENY: Dr. Taylor.

DR. TAYLOR: Was there any time during the few days after the accident started when you became seriously concerned about the possible release of a large amount of radioactive material?

DR. COLEMAN: Well, I cannot say I was not concerned - I guess everyone was concerned during the accident - but I don't think that I considered it an eminent risk and from my limited knowledge of nuclear power plants and the situation there, I felt that we would have fair warning if any large release was going to occur, it was going to be seriously harmful to the public, that at that time we would have an opportunity to leave the area.

DR. TAYLOR: Did you feel that the statements that

there would be sufficient time for warning for evacuation, if that did begin to look as though it might happen, did you have a feeling that there would be enough warning if there was to be a major release to allow effective evacuation of the area? I mean the immediate area - I don't mean New York City or Philadelphia.

DR. COLEMAN: I think so in there would be time enough for the evacuation but I would be concerned about - from what I saw from my neighbors and some of my people that I work with - that there would possibly be a crisis situation where people would all be trying to get out at once, and possibly as much damage to human lives could occur during rushing from the area as possible low level accident itself because I think there was that chance.

DR. TAYLOR: Thank you.

UNKNOWN SPEAKER: Dr. Gross told us this morning that a briefing was held here on the campus involving the engineering faculty. I would assume that you were a part of that briefing, were you?

DR. COLEMAN: I was teaching a laboratory during that briefing - I was not at it, but I was aware of it and I know the people that spoke during the incident.

UNKNOWN SPEAKER: Could you say something about, as you understand it, what was conveyed in that briefing - what kind of information was passed on, what kinds of concerns and questions were expressed during the briefing?

DR. COLEMAN: Since I was not at it, I'm not able to give you an idea of the interchange, but, knowing the people that were speaking there, it was an attempt to convey to the faculty at large what nuclear energy is about and attempt to explain to them what possibly was going on down there at Three Mile Island at the particular time. In other words, to alleviate fears through education to what the possible situation was.

CHAIRMAN KEMENY: Excuse me, could I ask one question, Cora? I'm fascinated by the following fact: you made an eloquent plea for more public education, and you've just pointed out that the distinguished University within ten miles of a major nuclear power plant depend that the faculty have to be educated on the subject after the accident. Don't you find some irony in that?

DR. COLEMAN: Yes. However, we do teach a number of courses at the campus - in it radiation safety and health are covered, but it's a problem of getting to the people and their interest unless there is a crisis. People are lethargic and they don't care until something happens.

CHAIRMAN KEMENY: Yes, that was what I was wondering about exactly. Professor Marrett.

MS. MARRETT: You mentioned something about the way your neighbors and other people whom you knew responded in terms of trying to get out of the area. Since you did not

leave, has there been any conflict, or how have you related to those people whom you know well who did not leave the area or who did leave the area?

DR. COLEMAN: I think very well. They accept my beliefs and my confidence and I accept their concerns and interest in the thing and I think maybe it was a moderating influence between the two of us exchanging ideas and thoughts back and forth.

CHAIRMAN KEMENY: Thank you very much for your question.

MS. JORGENSON: D. T. Smith, please.

MR. SMITH: Good afternoon, Mr. Chairman, ladies and gentlemen of the Commission, staff members. My name, contrary to your agenda, is V. T. Smith and I am not a part of any anti-nuclear activities. I am not an anti-anything activist. I am also not a speech writer, so please bear with me. What I am is an outraged citizen that has recently evacuated his family for eleven frustrating and difficult days of completely lost time as we reside eight miles from Three Mile Island, three miles outside of metropolitan's arbitrary liability. On March 29th of this year, my wife and I joyously brought home our second daughter from the hospital. She was just six days old. On the morning of the 30th, all hell broke loose, and we left for Delaware to stay with relatives. And we left because, in the face

of all the information we were trying to digest, it just seemed ludicrous to hope for the best. There is an overwhelming amount of data showing there is no safe levels of radiation exposure and the question here was not, is there risk with low levels of exposure, but rather how great is that risk? I am firmly convinced that it will take many years before my wife and I will realize the consequences of Three Mile Island to the health of our children.

Mr. Norman C. Rasmussen, author of Wash 1400, or The

Report on Nuclear Reactor Safety, recently stated in his report that he underestimated the psychological impact of an accident like that at Three Mile Island. He attributes this psychological trauma to the public's lack of understanding of nuclear energy and radiation.

CHAIRMAN KEMENY: Excuse me, I couldn't hear that phrase. Would you mind repeating that? It was just that phrase, attributed to...

MR. SMITH: Yes. Mr. Rasmussen attributes this psychological trauma to the public's lack of understanding of nuclear energy and radiation.

CHAIRMAN KEMENY: Thank you.

MR. SMITH: Mr. Rasmussen is in part correct, but he missed the true roots of this trauma. While it's true everyone has guarded respect for the unknown, the greatest fear in this instance is not what the public lacks in

understanding, but rather the obvious lack of talent, integrity and understanding inside this plant. Metropolitan Edison repeatedly played down the significance and seriousness of not only the damages to this plant, but also of the dangers of the radiation emissions throughout their so-called "event." Metropolitan officials at approximately forty-eight hours into their "event" assessed a one percent damage to their reactor rod. Five days later, NRC officials increased that estimate fifty percent. Undaunted by their miscalculations, Metropolitan Edison now calmly reasons with the Pennsylvania Public Utilities Commission for a rate increase to cover the eighty-eight million dollars they need to replace this reactor.

Metropolitan Edison's accountability is certainly very flexible. According to an NBC news report this week, Metropolitan Edison ignored a warning delivered more than a year ago by the NRC of the possible malfunction of an instrument which ultimately did fail and played a role in the March 28th "event."

Incidentally, the mere fact of Metropolitan Edison's reluctance to label this an accident as opposed to an event indicates a shortcoming in attitude. How can Metropolitan Edison, or its employees, expect to learn and improve this plant if they completely dismiss the seriousness of this accident?

Beyond all this now they want to dump their waste water into the Susquehanna without voluntarily showing any concern for an environmental impact.

The first thing that I would ask of this Commission is that Metropolitan Edison lose its operating license and possibly even GPU, and hope for a new holding company should this plant and the nuclear industry survive.

Nuclear energy has enough short-sightedness and emotional uncertainties without the additional drama contributed by people like Metropolitan Edison. There shouldn't be any second chances for Metropolitan Edison, just as there are no second chances for residents here to escape the radiation exposures we received.

I too, like Chairman Kemeny, who stated here Thursday morning that he promised himself the truth, I too, have promised to dedicate myself to the truth. But you know, the harder you look into the significance of Three Mile Island, the accident, the more you realize the enormous scope of the nuclear issue. And the real hell of this issue is that with all the talent involved in the pioneering, the operations, the engineering, the regulation, the technical and scientific research of the nuclear industry there aren't two people in there anywhere that can completely agree on any aspect of this energy source. Yet, here we are head-long into the industrial production of nuclear



energy. And Three Mile Island was not a freak accident. It was not just one of those things with the probability of a meteor hitting you on the head, as Mr. Rasmussen would have us believe. This accident was predicted with all the tools of probability and the benefit of scientific investigation where, if I may, this was a scheduled event. A scheduled event that the public and the industry will have to learn to expect from nuclear energy. Dr. John Goffman, who pioneered with the nuclear industry for thirty-six years estimates that the U. S. wastes as much as forty-five to fifty percent of the energy it produces and, in light of that, I wonder why we need nuclear energy at all.

There's just two more things that I would like to caution this Commission on: should we allow the public interest in energy to fall under the control of those whose only accountable interest and responsibility is to their stockholders and profit picture? Like oil interests, and public utilities like Metropolitan Edison who ultimately exploit public interest and something far more precious - our basic freedoms.

I might also caution this Committee as to any future recommendation for resolutions to these problems here, I implore you to be very cautious of using public funds to front the costs of these resolutions.

I thank you very much.

CHAIRMAN KEMENY: Could I ask one question, and please remember we are very early in our investigation - I have a great deal to learn. You made the reference to your living outside the five mile radius, which has certain impact on you, and I didn't get the reference, which is something I should know and I don't know. Would you be kind enough to explain the significance of it?

MR. SMITH: Yes. You cannot recover any evacuation, any economic costs that you have for evacuating, if you voluntarily left, because the evacuation involved only the five-mile radius. Of course, when we were evaluating this information, I don't think radiation makes the distinction between five miles and eight. So we were glad to leave.

CHAIRMAN KEMENY: Professor Taylor.

MR. TAYLOR: You and several other witnesses today have called for revoking the Metropolitan Edison license - the operating license. When would you propose that that be revoked?

MR. SMITH: Before they get even close to reopening this plant in any way, shape or form - Unit One, Unit Two. I think if you're sincere in your interests into delving into the truth of this matter, I don't think Metropolitan Edison has a chance to reopen it.

MR. TAYLOR: The reason I asked that question is that I would now like to ask what institution you would propose

should have the direct responsibility for dealing with the Unit Two core and whatever is inside containment from this point on?

MR. SMITH: Well, I would hope that this Commission, Commissioner Taylor, would find some reasonable suggestions out of your investigation. I personally - I shudder at the thought - you know that the public has fronted money from the beginning of this nuclear - from the beginning of the nuclear industry. We've researched the waste - you know, we do that as taxpayers. Now it's true, if the industry itself were responsible for doing that, our energy would cost us more. But you see, it still costs us in tax dollars, and that terribly distorts what this energy really costs us.

So, when you ask about who should be responsible...

MR. TAYLOR: Who should do it?

MR. SMITH: Who should do it.

MR. TAYLOR: That's what I'm asking. Somebody's got to do it, the question is who would you feel most comfortable doing that job?

MR. SMITH: In the face of all that's happened here since March 28th, I wonder, Commissioner Taylor, who we do trust. Who should we trust?

Commissioner Taylor, I might add, that might be a good point for you to investigate, along with all the other

things that you have to do here.

MR. TAYLOR: That's why I asked the question. That's something we want to look into.

CHAIRMAN KEMENY: Thank you very much.

MR. SMITH: I thank you.

CHAIRMAN KEMENY: Sorry, one moment, please.

MR. McPHERSON: I had a question about revoking the license. Would you do that if you were in a power to do it, would you do it now without formal hearings, or would you wait until there had been a proof of responsibility and liability on the part of Metropolitan Edison?

MR. SMITH: Commissioner McPherson, I believe that as long as they're not in a position to do any further damage I see no urgency in this and I think the truth is ultimately what we're after here. So I would delve into the activities of the March 28th incident as long as Metropolitan Edison isn't allowed to reopen - it isn't trying to reopen at this point - and I think I'd let it go at that, but I would use extreme caution before I would allow them to reopen that plant.

CHAIRMAN KEMENY: Thank you very much.

MR. SMITH: I thank you all very much.

MS. JORGENSON: Are Ms. Kuklo and Ms. Spearmint here? In that case, may I call Sue Fegan, please?

MS. FEGAN: March 28th, 1979. Until that day, I had

never given much thought to nuclear energy. A total lack of knowledge and a belief in what was told to me by the United States Government were contributing factors. On that fateful morning, at 3:53 a.m., a crisis began that would change my life and the lives of thousands of people in Central Pennsylvania. My reaction on that Wednesday was believing what Met Ed told us. They told us everything was under control. Who was I to disbelieve them? I know nothing about how to run a power plant. Thursday morning, March 29th, my attitudes began to change. We find out that radioactive material was vented between 11:00 a.m. and 1:30 on Wednesday - and beginning at 5:00 p.m. on Wednesday, and continuing through the night. In addition to all of this radiation, radiation was also beamed through the four-foot thick, steel-lined concrete wall of the reactor dome to a distance of more than a mile. I began to question how much was really being told to us - what was being held back. On Friday, March 30th, we found out. At 6:40 a.m., an uncontrolled burst of radiation began and continued until 9:00, reaching levels as high as 1200 millirems per hour.

The public was not informed of this until 10:00 a.m. After a two-day education on safe levels of millirems per hour, it didn't take long to realize that the people of the surrounding communities were considered expendable. It was more important to keep quiet about what happened for as

long as possible to save the utility company and its profit margin than to notify the proper authorities, to announce on radio and television, for people to stay inside and keep the children home.

Our children leave for school between 7:30 and 8:00, either walking directly to school, or to a bus stop. They were exposed to the highest levels of radiation that morning, and no one knew until it was too late. No one, except those who were running the plant.

To evacuate or not? This was the question of the day. As the day wore on, the fear began to mount. Why weren't we being evacuated? Was it because, as I had heard on March 28th, that there were no plans to evacuate all four surrounding counties? More releases in the afternoon: three men exposed to 1500 millirems at 3:00, and by 5:00, talk of a melt-down increased, the stressed almost breaking point. To leave with the knowledge that you may never return - or stay and expose our children to more radiation and panic in the streets if an evacuation was called? These were real and justifiable fears. My faith in Met Ed and the quote "experts" from the NRC was totally shattered. These experts, or specialists, as many as two thousand during the worst of the crisis, had no idea how to correct the potentially lethal situation facing them.

Thank God I didn't know until April 14th that some of the plans they were considering including breaking pipes,

starting fires, or causing another accident, to quote Roger Mattson, to get into a mode for which all these systems were designed, and we could cope with. These men were holding the lives of approximately one million people in their hands. If you give any thought to how potentially dangerous the situation was, it is an unforgiveable outrage that should not be permitted to continue.

Why are these men allowed to continue in their present positions? These same men licensed TMI knowing of twenty-two defects at the time of licensing. They knew, according to Dr. Henry Kendall, an MIT physicist, of ten failures in the cooling system in the past year, and did nothing. They inspected the plant three days before the accident, and did nothing. They admit that know of problems of the other plants, but continue to allow them to operate. Why? Mr. Hendrie himself has admitted that the possibility of another TMI occuring is one in thirty in three months. This Commission will take six months - other commissions, six months to one year. Who is going to handle the next accident, two months down the road?

I feel an immediate moritorium should be called on all nuclear power plants for at least six months or until the commissions can come up with some concrete decision. No one, anywhere in the world, should go through the living hell that we were subjected to for eight days.

As I see it, there are two choices: the lives of the populations living near the plants or the profits of the utility companies, and their stockholders. Which is more important?

The future of this country depends on our most important natural resource - our children and the generations to follow. If we allow the dollar to win we are committing genetic suicide. It is too late for the people of Central Pennsylvania. We had no choice. But we must now stand up and speak out against corporate and Government control over the future of our world. Utility and the NRC are quick to point out that no one was killed or injured. This statement is completely ludicrous. We won't know for fifteen or twenty years how many are going to die, and how many will be injured with cancers or genetic birth defects. The psychological and emotional effects can be seen today. The injury began on March 28th and will continue for the rest of our lives. We will never know how much radiation we were exposed to. Could Met Ed's failure reporting the first leaks for four hours and Friday's, March 30th's, for three hours be due to the fact that the levels were so high that if the truth were known immediately an evacuation would have been called and would have made the nuclear industry look bad. They tried to make themselves look good by bringing in a body scanning machine. The announcement of the machines' arrival was April 10th - fourteen days after



the accident. Iodine 131 has a half life of 7.4 days. On the fifteenth day, when the scanning started, what traces of 131 left in the body would have been negligible.

We also found out in the paper last week that the machine cannot detect Beta rays, which affect bone marrow. It was a publicity stunt, pure and simple.

Enough is enough. There should never be another Utah - Nevada incident in the history of this nation. We want this incident disclosed now, not twenty-five years later as happened out there. And there should never be another accident to be investigated in our history.

We have the technology to put a man on the Moon, we surely should have enough to develop cleaner burning coal or solar energy. According to Senator Gary Hart, when he appeared on the Phil Donohue show, the Federal Government needs financial support from corporations such as G.E. and Westinghouse to proceed with research into solar energy. When asked why we don't contribute, Phil Donohue answered by saying, "Because you can't put a meter on the sun." Senator Hart agreed.

The Federal Government contributes seventy-three million dollars per year towards nuclear research. My question is, why can't that be used instead for solar or coal. Only thirteen percent of our energy is supplied from nuclear power plants. Let's put a stop to it's growth right now. Shut them down now before this can happen again.

Let's put our priorities in the proper perspective. Our lives, and the lives of our children, are the most important priority, not our electric canopeners and food processors.

CHAIRMAN KEMENY: May I start off by asking you, early in your remarks you quoted some quite high levels of radiation. I believe at one point you said 1200 millirems per hour. I'm just interested where the information comes from. Where would that particular...

MS. FEGAN: The 1200 millirems was reported Friday morning supposedly right above the stack on the island. It didn't go off the island. Supposedly it was 1200. Met Ed said it was 350. It's just one of those conflicting reports, but where did they come up with 1200?

CHAIRMAN KEMENY: No, I'm just most curious who reported 1200, do you know?

MS. FEGAN: It's in the paper.

CHAIRMAN KEMENY: In the paper. Other questions?  
Thank you very much.

MS. JORGENSON: Dr. John Barnoski.

DR. BARNOSKI: Mr. Chairman, members of the Commission, thank you for the invitation and the opportunity to speak to you today. I am a member of the Middletown community and a practicing family physician in the town. I became acutely interested in the problems of nuclear energy when my wife and two children evacuated Friday morning after the accident at Three Mile Island. Since that time, much has

happened in my life and my practice to deepen my concerns.

Several Middletown citizens who shared common concerns about the future of nuclear energy decided to meet as a committee to organize our efforts to both educate the rest of our community and to keep our local officials informed on public opinion. We called ourselves the PANE committee, People Against Nuclear Energy.

I would like to address first the concerns and objectives of our committee, and secondly my particular input. Public statements by Met Ed officials in the aftermath of the TMI accident regarding necessity of evacuating women and children convinced us of two things: (1) Met Ed does not know enough about nuclear power to be operating a power plant in anyone's back yard; (2) Met Ed is not concerned about the health and safety of the surrounding community.

As a committee, we planned no subversive action, no demonstrations. We have circulated a petition calling for the shut-down of Units One and Two. We hope to be able to show our local officials, through this petition, how our community feels. We have urged the people to call or write our Congressmen. We plan to continue to work on a local level to make people aware that danger still exists.

As a physician, the last six weeks have been both enlightening and frightening. My patients started to have problems - real problems over TMI. Since the accident, I have seen four to five patients per day with emotional

problems directly related to the events which previously occurred. When I personally polled my patients, better than eighty percent of those polled admitted to being under extra stress during the last six weeks. And I see between two hundred and two hundred and fifty patients per week. I have had responsible husbands and fathers in my office unable to cope with everyday problems. I have seen fear and frustration in the eyes of young couples as they bring their babies in for routine checkups. I have had pregnant women contemplating abortion because of their fear of the unknown affects on their unborn fetus.

However, my biggest problem lies in the future, for, if the nuclear plant continues to operate, these anxieties and fears will remain and probably increase. I cannot reassure my patients that nothing will happen when I don't know, and especially when the medical information available to me says that there is an increased risk of cancer and leukemia.

One of our previous speakers mentioned that the statistics on increased medical problems are low. But if you are that statistic, then it's one hundred percent.

The solutions to the problems we presently face must be found, or the people of Central Pennsylvania will forever suffer the consequences, both real and imaginary. My plea is that the decisions to be made be made by humans based on human emotion, and not biased by political or

economic policies.

If anyone in this room can look at any two or three year old child in Middletown and deny that he is worth more than three TMIs, then he is a sorry human being indeed. Thank you.

CHAIRMAN KEMENY: Could you tell us a little bit more about the kind of emotion, without obviously violating doctor-patient confidentiality, a little more about the kind of emotional trauma you've experienced in your practice.

DR. BARNOSKI: Initially, in the first several days, there was just a lot of semi-hysteria, anxiety, fear. There were - I had children in my office - six and seven year old children - acting like two year old children, becoming very dependent, hanging on mothers, sensing the fear and frustration I think on the part of the parents. I had older people with exasperation of blood pressure problems because of their anxieties. Later, several weeks after the accident, I began seeing the people coming in with non-specific symptoms of fatigue, malaise nervousness, insomnia and, after discussing their problems with them, finally was able to get out of them that it related back to their anxiety over TMI, their fear over TMI, and mostly their frustration over being unable to do anything. I began to see a few depressions, mostly anxiety.

CHAIRMAN KEMENY: Commissioner McPherson.

MR. McPHERSON: Dr. Barnoski, before this accident happened, were you aware of any such problems, problems of this nature that you thought might have been attributed to low-level radiation from the plant or fear of the plant being here? Or is it only after the accident that you...

DR. BARNOSKI: It has only been after the accident. I think in general we never really discussed the plant before that.

MR. McPHERSON: You say in your testimony that you and your colleagues on this committee plan to continue to work on a local level to make people aware that danger still exists. What is that danger that you believe still exists?

DR. BARNOSKI: We feel that there is a significant danger of radiation leakage while the clean-up process continues.

CHAIRMAN KEMENY: Could I ask - I'm sorry - could I ask the audience, please don't misunderstand my request about asking you to hold down your applause. I know you feel very strongly on this. We are fighting the clock and we want to be sure that absolutely everyone gets heard, and it's only for reasons of time that I'm asking that. Commissioner McPherson.

MR. McPHERSON: Then you say, Dr. Barnoski, that the solutions to the problems we presently face must be found or the people of Central Pennsylvania will forever suffer the consequences, both real and imaginary. Are you saying

that these - well let me put it this way - as I understand it, people, as you perceive them in your patients, have suffered damage, psychological damage, if not direct physical, physiological damage, which damage is likely to continue whether the plant is opened up or not. Is that correct?

DR. BARNOSKI: To a certain extent whether the plant is opened or not some of that will continue. The people that become nervous or anxious over that particular problem may continue to have emotional problems in the future. Those numbers, hopefully, will be very small, but some people do.

MR. McPHERSON: Right. Just to return to that sentence that the solutions to the problems we presently face must be found or the people of Central Pennsylvania will forever suffer the consequences. That would - I take what you're saying there that if the plant is reopened, that those problems would be exaserbated, that if the plant is not opened they will continue in some people, perhaps not as...

DR. BARNOSKI: You can imagine anyone right now with a two or three year old child who'll fifteen years from now that child gets ill, and by an illness that is not readily explained. That mother or father is going to remember that child fifteen years back.

MR. McPHERSON: I'm wondering what the Federal Government could do, or what any government or private entity

could do to alleviate those problems?

DR. BARNOSKI: Many people have called for a health monitoring over the next ten to twenty years. That would be extremely difficult to do except on an individual basis. I plan on practicing hopefully in Middletown the rest of my professional career, and I am going to remember everyone who comes in, and I have to have that in the back of my mind. That doesn't mean that I order a full investigation on everyone who comes in ill, but the physicians have to keep that in mind. I think as grant from the Government, or any other type of matter, would be very difficult to undertake.



MR. McPHERSON: Thank you.

CHAIRMAN KEMENY: Dr. Marks?

DR. MARKS: First let me say I think it would be very valuable if we could get any data on the effects of the accident in terms of health and safety of you and any of your colleagues. Is there any group of physicians who share your experiences and who might have additional data of value to the Commission in its work?

DR. BARNOSKI: There is one of the speakers, two or three from now, Dr. William Shoff, will be speaking on this. He heads a group of physicians in the area concerned about it. He has collected much more medical information than I have, on this matter, and in fact has several reprints available to the Commission.

DR. MARKS: You personally feel that you are being adequately informed about the health and safety consequences of the levels of exposure to which the population is at risk at the present time?

DR. BARNOSKI: I was informed personally as a physician in the area by no one when the accident occurred. I was not called and told there is a certain level in the air, be on the lookout. I had to depend on reports in the newspaper, on the radio for those levels. And then advise my patients on that basis. I was not given any medical information that I could use.

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DR. MARKS: Who do you think should have had the responsibility of keeping the physicians -- the local physicians and the public informed with respect to these data? Do you think the state department of health? Of course I'm not really sure how you're organized, but --- (interrupted).

DR. BARNOSKI: We are looking at something now that has not been present before, but projecting into something, it could have been or should have been a committee, possibly made up of local health officials, state health officials, and federal people to act as a liaison. To answer these questions.

DR. MARKS: You certainly wouldn't have resented being informed.

DR. BARNOSKI: Certainly not.

DR. MARKS: That's for the record, primarily. Do you feel that you are also, in terms of your training and experience, sir, do you think that you have adequate information with regard to the -- not only the short but the long term consequences of radiation?

DR. BARNOSKI: At this point, I am getting close to that goal. I have had to educate myself a little bit after the accident occurred. And I am getting to that point that I feel confident if the information is relayed to me and it is accurate.

DR. MARKS: But would you -- I mean, do you feel that you should have access to more information or access to some form which could check out whether or not your information is

adequate. I mean, it's a heavy responsibility you're dealing with here.

DR. BARNOSKI: I would hope that over the future years there would be some form of committee available to give me the information on pollution counts, on meter readings, on water samples and also a centralized committee that we could forward any of our questions and problems to. We have already run into difficulty along that line when several patients or at least people that I was in contact with had questions concerning possibly increased levels of radiation. And we're told that they had to go to private sources to prove their problems existed. And for such a problem of this magnitude I would have thought we would have immediate federal and state investigation of that. And I'm speaking of several parties, were told if they want results they'd have to go privately.

CHAIRMAN KEMENY: Commissioner Taylor, did you have a question earlier?

MR. TAYLOR: No, my question was answered.

CHAIRMAN KEMENY: Governor Babbitt.

GOVERNOR BABBITT: Doctor, did you take any unique or special steps to deal with these patients with emotional problems? Anything that relates particularly to your perception to this type of occurrence?

DR. BARNOSKI: Most of the time I just got them to ventilate on the problem. We talked a little bit about what we could do about the problem. I talked to them about my

being a member of the committee, and that I was active in keeping the rest of the community aware of the problems. Most of their problems seemed to be frustration in fighting city hall, so to speak. And just knowing that someone else cared about it and that they weren't alone and feeling the way they did. I urged them to speak out. I urged them to write, to ventilate their frustrations and get rid of their anxieties, hopefully in that way. I honestly used a lot of tranquilizers over the last six weeks on my patients because they needed them. I hoped in this way of getting them to ventilate and relax a little bit that we could solve the problem. I urged them all to continue to lead their routine lives even though they had to keep this problem in the background and not let it slip away. But I urged them all to return to their routine activities so that they could get back into their normal daily affairs.

CHAIRMAN KEMENY: Commissioner Lewis.

MS. LEWIS: Doctor, this is hypothetical. But supposing the engineers and the nuclear scientists can make this facility safe again and it is started up. Can you predict from what you've seen what is likely to happen in the population that visits your office?

DR. BARNOSKI: I honestly believe that no matter how safe they can make any facility in this area, that there is going to be a great number of people who will not be able to believe that. And they will continue to have emotional problems and

anxieties and fears over this. We were told this could never happen, and it happened. And so I don't think you can ever prove to people that that won't happen again. Many people will be able to accept that if they're shown all of the evidence. But there is a large number of people who will continue to suffer.

CHAIRMAN KEMENY: Thank you very much for your testimony. (APPLAUSE).

MS. JORGENSEN: Mr. Marks has asked us to make a very brief adjustment in the agenda because he has a six o'clock plane to catch. In that case we'd like to call Dr. William Shoff next. Dr. Shoff.

DR. SHOFF: Good afternoon. I certainly appreciate the opportunity to come here and address all of you. I have prepared a written statement I will read.

MS. JORGENSEN: Dr. Shoff, will you pull the microphone a little closer to you, please?

DR. SHOFF: Yes. Can you hear me better now?

MS. JORGENSEN: Yes, thank you.

DR. SHOFF: O.k. A bit of background. I am a physician. I am certified by the American Board of Internal Medicine. I'm currently on the staff at Hershey Medical Center. Today, I represent myself. I have several concerns.

The first one is to say there is much data becoming available about the accident. How much of it is adequate, how much is inadequate or insufficient? This is very serious business.

Our society cannot afford to be inadequate or insufficient about this matter of the Three Mile Island accident. There is no substitute for a careful study conducted rigorously by competent and capable scientists and non-scientists from the government sector and the private sector.

The second point: Is low level ionizing radiation dangerous? There seems to be an unqualified yes to this question. I refer the members of the Commission to the following material, and I have listed for you there four references: A recent article in Science, Volume 203, Page 1025 in March of this year points to the observation of exceedingly low levels of causing abnormalities in dividing cells in a culture dish. These abnormalities occur secondary to breaks in the DNA which is the genetic material, and subsequent repair process, which incidentally does not always put the DNA back together exactly the same. This can be a setup for genetic abnormality.

My third point: How much radiation has gone out? What do we really know at this time? The ad hoc interagency dose assessment group composed of representatives from NRC, EPA, CDC, HEW and the FDA comment, there has not been sufficient time to verify many details concerning the data and to incorporate later updates on the results. While the ad hoc group feels that the overall conclusions that there was minimal health in fact to the population is correct, the actual numerical values may be subject to change. This comes from Page 7 of

that document which was published on Easter Sunday.

What does the term minimal health impact mean? What we really are talking about is cancer and genetic defects. There may be even other biological effects that have not yet been identified. After they're "subject to change", Secretary Callifano has already adjusted the expected number of cancer victims from one to ten point four. What kind of environmental monitoring has been done? What isotopes have been looked for? The major instruments being used to the best of my knowledge is the TLD or thermo luminescent dosimeter. As I understand this device, it measures radiation received but does not discriminate what isotopes delivered the radiation. Furthermore, only gamma and high energy beta is measured, and the latter I'm not sure how well. I wonder how many people on the Commission understand the difference between alpha, beta and gamma radiation.

Alpha particles travel microscopic distances. Beta particles may travel up to one centimeter, perhaps more. Gamma rays which are similar to x-rays can travel through you. They can all cause damage, depending on whether they are inside you or outside you and how much energy they have. The total body scanner is only capable of picking up gamma radiation. I would like to know how much gamma radiation needs to be present in the body before this instrument can detect it. What isotopes are we concerned about that can get inside of us? I am specifically aware of plutonium 239, 137, iodine 131,

and strontium 90. Now, I have been told that there was no plutonium in the primary coolant of this three month old reactor at the time of the accident. This is hard to believe but I would like to see the data. As I understand plutonium is not very soluble in water, but neptunian is. Neptunian 239 is the isotope that decays into plutonium with a half life of 2.33 days which means that half of the neptunian present at any given time will decay or turn into, if you will, plutonium by the end of about two and a half days. Was neptunian measured for in the primary coolant? I do not know. Strontium is a beta emitter. It comes from krypton 90, a noble gas, which has a 33 second half life, decaying into ruthenium 90 with a 2.74 minute half life, which then decays into strontium 90. How much strontium 90 has gotten into the environment? What are the results of any studies done on ground or dust samples where the fumes touched down? Did the samples include just gamma spectroscopy which would not detect strontium 90? Why not specifically test for strontium and other beta emitters, even for alpha emitters, in ground and dust samples. I understand that air samples were sent to Brookhaven National Laboratory for "further analysis to detect presence of beta or alpha emitters." I stress that those were air samples, not dust or soil samples to the best of my knowledge.

What are the results of these studies? How sensitive are the techniques. Are there better techniques for

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measuring these for these isotopes?

My fifth point: How should radioactive waste be disposed of? According to the preliminary notification from the Nuclear Regulatory Commission dated March 30, 1979, "less than 50,000 gallons of slightly contaminated industrial waste" were released into the Susquehanna River. What does "slightly contaminated" mean? What isotopes are present in that waste? The public has a right to know.

I understand there have been many unannounced, to the public, releases of radioactivity in the form of gasses. I would like to know more about this policy. Several hundred thousand gallons of contaminated water is to be "filtered", then some of this dumped into the Susquehanna River. Again, what does contaminated mean? What isotopes are present in that water?

My sixth point: How close did we in the Harrisburg area come to a full scale melt down, a China syndrome? I understand if this reactor had been in operation for one year instead of three months, the core temperature would have been higher and at the time of the accident when the core was "uncovered" for a period of two hours, there could have been a full scale meltdown. A much higher chance of that, I am told.

Does the public understand the consequences of a full scale meltdown? Does the public understand the cost in lives? The economic costs would be in the multi-billion dollars, yet

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the Price-Anderson Act sets a limited liability of 560 million dollars, 500 million of which I understand is to be paid by the tax payers.

My seventh point: How much radiation are the workers at Three Mile Island being exposed to? I understand that current standards permit radiation workers five rams per year. Under certain circumstances, three rams per quarter, or twelve rams per year, and in an emergency situation, twenty-five rams. I find this deplorable, given that there is strong evidence in the literature to suggest that radiation dosages in the one to five ram dose range measurably increases cancer incidence. Thank you. (APPLAUSE).

CHAIRMAN KEMENY: I am conscious of the fact that Dr. Marks has to leave so if you have questions I'll recognize you first.

DR. MARKS: Dr. Shoff, do you have any, I thought Dr. Barnoski said that you had some data as to the effect of the accident on health and safety?

DR. SHOFF: I don't have anything written out. What I -- I've been in contact with several physicians in the area who have had similar experiences to Dr. Barnoski. Several of my friends I've had to spend a great deal of time with, trying to reassure them. I'm in the position where, having raised questions that you've heard me raise, I really don't know what is going on as much as I feel I should know as a physician, or a private citizen.

DR. MARKS: That we understand. And we feel we probably don't either yet. But I think it would be very helpful to us if you are accumulating data on the effects of the accident on health and safety, which obviously includes all aspects of health and safety, if you could make it available to us we'd greatly appreciate it. It would facilitate our work.

DR. SHOFF: I don't have any data with me today that I can give you.

DR. MARKS: But after you get it --- (interrupted).

DR. SHOFF: I'm going to be involved in some studies and as I understand too, just to give you information, there are some people in the area both from the state and otherwise who are going to be doing studies on these psychological effects and some of the medical effects from the accident.

DR. MARKS: Thank you.

CHAIRMAN KEMENY: Commissioner Taylor?

MR. TAYLOR: You mentioned two bits of information, I think prefaced by saying you were told or we were told, and I want to ask in both cases, who told you? The first question was, you said you were told there was no plutonium in the core, and then as I understood it expressed reasons for believing that's not so. Who told you there was no plutonium in the core?

DR. SHOFF: O.k., I called the Department of Environmental Resources for the State of Pennsylvania to inquire about what was in the primary coolant. I understand there

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have been three studies done. My understanding is I think is on the 30th, 29th or 30th, 100 cc sample was taken, and two additional samples early in April. So I understand there were three samples of primary coolant taken and sent away. I have not yet seen a report for those so I called to see if I could find out what was in them. I was told that there was no plutonium. Now, as I said, I found that difficult to believe, but I would like to see the data.

MR. TAYLOR: Let me make sure I've got it right then. Apparently, you were told there was no plutonium in the water.

DR. SHOFF: In the water, in the coolant.

MR. TAYLOR: But that's not, you were not told there was no plutonium in the core?

DR. SHOFF: Oh, there would have to be plutonium in the core.

MR. TAYLOR: O.k.

DR. SHOFF: There would have to be.

MR. TAYLOR: The second question is, who told you that the core meltdown would have been much more likely if the reactor had been running for a much longer time than three months?

DR. SHOFF: Dr. John Goffman.

DR. MARKS: Thank you.

CHAIRMAN KEMENY: Other questions? Thank you very much for your testimony.

DR. SHOFF: Thank you. (APPLAUSE).

MS. JORGENSEN: Can we now hear from Mr. Stephen Sholly?

MR. SHOLLY: O.k., I'm a resident of Mechanicsburg, which is about fifteen miles or so from the plant, which probably places me a little bit outside of what some of the other speakers have been, but concerned nonetheless. Before I make any remarks about the accident, I want to praise the Commission's stance about swearing in of witnesses and the need of subpoena power. I think those are crucial to your ability to uncover the facts in this incident, and I think it's remarkable that you took the stance that you did, and I'm very pleased with it. But I strongly object with the apparent decision to hold the remainder of these hearings in Washington. The accident happened in central Pennsylvania. Central Pennsylvanians suffered whatever consequences will result from the accident, and central Pennsylvanians will have to live with the plant when it's reopened, which is likely. I'm tired of getting information second hand in the press. If Metropolitan Edison officials are going to continue lying, I want them to lie here, in Middletown, before the people who live in this area. I demand that the remainder of those hearings be held here in Middletown or Harrisburg so the people of central Pennsylvania have access to them and don't have to hear about them in newspapers. (APPLAUSE).

Six years ago, I appeared at the Atomic Energy Commission hearings in Harrisburg on Three Mile Island to voice a number of concerns about the facility. I find myself here today

voicing the same concerns. And briefly I'm concerned with the following:

Number one, the inadequacy of emergency planning and communications;

Number two, the inadequacy of radiological monitoring at Three Mile Island;

Number three, the inability of reactor operators to control the plant under conditions which might occur.

And despite the assurances of Governor Thornberg and the Director of the Pennsylvania Emergency Management Association I don't feel any way that emergency plans and communication facilities we're dealing with nuclear accidents are adequate. I think the accident points that out very readily.

Despite the fact that Unit 1 at Three Mile Island had been operating for several years, a number of communities had not developed the necessary emergency plans prior to the March 28 accident. Some of those municipalities which did have plans were not notified of the accident by Met Ed, the state or the federal government. They learned about the accident when they heard about it on the radio.

See Richard VanNeel of the NRC staff testified in the Unit 2 licensing hearing that three to six hours would be required to effect an evacuation from any forty-five degree sector, out to a distance of five miles from the plant. He specified that these estimates are based on the public following official warnings and instructions. I think a

large number of people who did not follow Governor Thornberg's request to remain indoors or to evacuate pregnant women and children within the five mile zone shows what we might realistically expect. And incidentally, I know of no authority, legal authority short of a declaration of Marshall Law which would allow a forced evacuation. People cannot be forced to leave.

In a letter to the NRC dated 24 January 1978, Metropolitan Edison detailed the latest revisions of it's so-called radiological environment monitoring program. This program places four, and I think I indicated in my statement that you may have there three, there are four radiation monitoring stations outside a five mile radius of the plant. And for the Commissioners who don't have a copy of the map which is Figure 3.2-2 which shows the location of those stations. There's a 180 degree segment which contains no such stations outside the five mile zone. And that represents the entire west shore area including the city of York. And curiously those stations which are there are operated by Metropolitan Edison Company. There must be a way for the state to receive funds to operate it's own radiation monitoring program, permitting the utility to access it's own radiation releases is criminally naive. In addition a stiff system of fines, I'm not talking about a twenty-five thousand limit which apparently is now in effect. But a stiff system of fines must be imposed to force reactor operators and utility companies to publicly report all radiation



releases from nuclear power plants. Such reports should be made legal requirements.

Finally I wish to address the ability of reactor operators to deal with the accident. I want to make it clear that based on the information which is thus far available the reactor operators are not directly to blame for the accident. It is rather their training which is at fault. The simulator training based on the aerospace industry's experience is available and should be made a mandatory part of the training of reactor operators. It's also clear that plant control room instrumentation had a great deal to do with the accident. I would command your attention to a November 1976 report of the Electric Power Research Institute which deals with human factors engineering in the control room. Incidentally there was a summary of that article in Nuclear Safety which appeared in November-December 1977 issue.

Now, the NRC has proposed the resident inspector program for operating nuclear reactors. And since there were, at last report, one hundred and twenty-four reactor inspectors, there is no excuse for the lack of a resident inspector at Three Mile Island. This must be a prerequisite for the reopening of the plant. I will be happy to answer any questions.

CHAIRMAN KEMENY: Thank you. Commissioner Taylor?

MR. TAYLOR: I would like to ask you a question about this matter of the operator training. Is what you have in mind training them to do the manipulations that are supposed to go



on in the reactor better, or is it to give them a deeper knowledge of what might be going on if the actions they take don't lead to the consequences they expected. In other words are you looking for deep understanding of what might be going on that is not clear in the instrumentation, or simply training in the use of the controls and the instrumentation more effectively somehow?

MR. SHOLLY: What I was looking for was something similar to what I understand, like astronauts or airplane pilots go through. They're put in a simulator which is an exact replica of their control room as possible. And performs all the same functions. And I've seen instances where airplane pilots are put in a situation and everything is going along normally and all of a sudden the plane takes a dive. And they have to figure out from the instrumentation what's going on, what's causing it, how to control it. And I would think there would be a way to develop something similar for reactor operators so you can put a person who's undergone training and who's now ready to move out and operate a reactor, into a simulator, have things running normally, and then have a loss of cooling accident, a pump kicks out and there's no water in the core. So they get the experience in dealing with accidents. So the first time they don't run across something like that is when an accident actually occurs.

MR. TAYLOR: Do you think the events that happened at Three Mile Island could have been simulated in advance, and used with such a simulator?

MR. SHOLLY: Perhaps not exactly. From what I've been able to read, the sequence of events that did happen was not foreseen specifically. But perhaps a similar situation might have been foreseen and they could have had at least some experience in a related type of event. I would think simulator training, the more they go through this sort of thing the better equipped they are to do what they have to do in the shortest period of time.

MR. TAYLOR: Thank you.

CHAIRMAN KEMENY: More questions?

MS. MARRETT: Your comments with reference to the control room and the performance of the operators. Is this based on information published or on familiarity you might have had with operators? Is there any direct knowledge that you have with reference to the control room?

MR. SHOLLY: I don't know anyone in the control room. I'd love to see it myself. I've only ever been able to see pictures. The article on nuclear safety I mentioned. I have a copy with me and I have a number of things they pointed out in there. This is a summary of that report that I mentioned.

For instance, there's a picture here of a control panel with a senior operator sitting with his back turned to the panel. While the reactor's operating. Just above that is a diagram of the steps that reactor operators have to follow to deal with a minor incident. And if you want to see this you can see the people running around all over the place for several minutes

trying to figure out what's going on. I just wonder if maybe it would be better to have those controls more centrally located where they can deal with it.

CHAIRMAN KEMENY: Thank you very much.

MR. SHOLLY: Thank you.

CHAIRMAN KEMENY: I am reminded that I was supposed to make an announcement. It's most appropriate in view of the last witness' remarks. I was supposed to announce earlier that it is the intention of the Commission that we take complete transcripts of all of the hearings and of all of our public meetings, and multiple copies of all of those will be placed first in the library in Middletown and secondly at Penn State's capitol campuses, TMI Information Center, so that they will be available to all the citizens of this region. Next witness please.

MS. JORGENSEN: Albert Manick.

MR. MANICK: Members of the President's Commission on the Accident at Three Mile Island. I find that I must express myself with the truth with much concern. My family and I reside about three and a half miles from Three Mile Island. I am frightened. Scared may be a better word for it. My health, the health of my family, my friends and my neighbors. I am afraid, not so much of the truth, but even more so the lies that surface concerning the stability of Three Mile Island. So much so that I find myself looking for a new location far enough from the monster reactor and protection for my family and myself. I do not have the faith and confidence in the owners and operators of

Three Mile Island. It is also difficult for me to find confidence in our public elected officials. My last resort is to plead with your committee to re-establish the sanity into this monster. If you committee does nothing to relieve us of our fears and anxieties, then the people who reside close to these reactors must have the same fears.

If the owners of the Three Mile Island have no concern for our health and safety and the government doesn't care either, then the residents of the area are nothing more than test specimens. With due respect to your committee, I plead to you to relieve us from our fears and concerns for our lives. We need your help to close the two reactors forever. We cannot live in an area where our lives would be threatened from time to time. And I say please help us.

I have, sitting here listening to other people talked, in event that it was necessary to evacuate the area, and people would be at work. And they would have people there that was incapacitated, suffering perhaps from heart problems, or in event of myself, if my wife was home and I would have to go 15-20 miles to try to get back into the area to get her so we could evacuate. I would like to have someone explain that to me.

I would like to know how it's done. Cars going one way, cars going another way. Just a case of mass confusion. I think perhaps you could picture this without too much trouble in your minds. How would you evacuate somebody under those circumstances? I don't have the answer, and I hope somebody has the answer.

UNKNOWN SPEAKER: A question. You did not leave the area, is that correct?

MR. MANICK: Yes, I did leave the area. Oh, my yes. I was fortunate. I was able to leave the area.

UNKNOWN SPEAKER: Could you tell us a bit about your decision, the kinds of things, at what point did you leave, what had been the final thing --- (interrupted).

MR. MANICK: I only had one point. When I heard how bad it was on Friday, I said Mom pack up we're going. She said we're going to stay. We can't leave our house. And I said, we're going. We've had enough. And I think that is our problem here. We've had enough. I hope, I'm sitting there, and I'm sorry to be taking up so much time for you people, but it's nice that you're here to listen to us. But we've had enough. We don't need anymore. And there's only one way to settle it. And that is take those monsters and get them out of here. We don't need them. (APPLAUSE).

I think other people have told you the problems. And I hope you don't have to live with it. We do. Or else we get out. And I'm taking the easy road. I want to get out.

CHAIRMAN KEMENY: Thank you very much. (APPLAUSE).

MS. JORGENSON: Milton Lowenthal.

MR. LOWENTHAL: Thank you. I'm Milton Lowenthal, a resident of the Harrisburg area for thirty years. I appreciate the opportunity to be here today. As an alumnus of Columbia University, I'm pleased to see that my alma mater is well

represented on the Commission.

Today, I represent the Harrisburg area chapter of the United Nations Association and the Harrisburg Branch of the Woman's International League for Peace and Freedom. Some people might raise the question, some have, of why an energy problem is of concern to these organizations. It may be news to someone but the fact that the head of the Department of Energy is also responsible for making atomic bombs shows some relationship. Both of these organizations are committed to peace. Both are dedicated to peace and justice and are concerned with preserving the resources of the world so that we who have inherited those resources will be able to pass them on to future generations. And in atomic weaponry and atomic power we have the potential of destroying the world.

The statement which I prepared I believe you all have copies of reads as follows:

As I drove to work on March 28, the radio announcer jokingly noted the coincidence of an accident at Three Mile Island and the showing of the China Syndrome in the area. The movie refers to a government report that a serious nuclear accident could contaminate an area the size of Pennsylvania with deadly radioactivity. That evening the dangers of radioactivity releases were discussed at a meeting of Three Mile Island Alert. The coalition of anti-nuc organizations. There a person commented that the TMI accident might be a blessing in disguise. If it would make people aware of the hazards of nuclear power.

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Realizing that the threatened dangers were much greater than had been revealed, we left that meeting to see Governor Thornberg. At 10:00 p.m. we met him on the street outside the Executive Mansion to convey our concerns. And to call for his leadership in the developing crisis. Two days later the Governor called for evacuation of pregnant women and pre-school children from the immediate area. Hundreds of thousands of area residents voluntarily left the area. The hair-raising events of the next few weeks have been fully recorded by the media.

As members of the President's Commission you have an important role. You must bring out the truth about the TMI incident if confidence is to be restored in the authorities, both public and private and so that rational decisions can be made by -- about the future use of nuclear power. You will be considering the attitudes of people toward the hazards of nuclear power and other uses of nuclear technology. And you will be drawing conclusions concerning its risks to society and whether they are acceptable in comparison to possible gains in use of nuclear technology.

I'm adding the following comment: Your concern with citizens' reactions and your insistence on having powers

well for your findings to be constructive. Your functions are neither legislative nor judicial, but to make recommendations to the Executive Branch of our government. President Carter and Energy Chief Schlessinger have already



expressed themselves that nuclear power is necessary, and that the TMI accident will teach us to make it safe. It is hoped that your investigation will not serve as a rubber stamp for those views, or a white wash for errors and incompetence of NRC and Metropolitan Edison. It is hoped that you will recognize the hazards of nuclear power. For even if there were fail safe measures to avoid accidents, there are unsolved, unsolvable as many esteemed scientists say, problems of how to overcome the deadly effects of routinely released radioactive emissions. The storage of the poisonous waste that will endanger human, animal and plant life practically forever. Think of that. Forever. The World Federalist Association has issued a circular on the dangers of nuclear technology with the title There Was a Time When Only God Could End the World.

I am here today to urge, yes, even to plead for utmost caution in applying untested technology that uses human beings as guinea pigs. When we do not understand the implications and the consequences of it's use.

On November 6, 1973, at a hearing of the Atomic Energy Commission on TMI 1, I had the opportunity to present a statement on behalf of the Harrisburg Chapter of the United Nations Association. You have a copy of that. At that time, we stressed that our members were greatly concerned at the hazards of nuclear power, and we called for caution and prudence in applying nuclear technology. We pointed out that problems of production and use of energy require global solutions, because nations are



becoming more inter-dependent. And we offer this non-nuclear energy program:

One, a moratorium on construction of all atomic power plants until the presently operating plants prove to be safe.

Two, class research programs to develop safe and clean sources of energy, such as solar, hydroelectric, thermal and wind.

Three, make more efficient use of available energy resources, improving transportation power, lighting and heating systems.

Four, eliminate wasteful and non-essential uses of energy and resorting to rationing where found necessary.

That program, if followed aggressively, could provide for our energy needs with much less dependence on foreign sources. In addition, the psychological as well as the economic considerations, we now also strongly urge dismantling both TMI 1 and TMI 2.

On June 11, 1977 at the hearings of the Nuclear Regulatory Commission on Licensing, TMI 2, I presented a five page report covering the hazards of nuclear power, the facts on the needs and the availability of alternative energy sources. Evidence of public opposition here and worldwide and the need for a national energy policy to protect the public. That's all in the record somewhere. At the end of that hearing, after eight area residents had opposed licensing TMI 2, we were told by the Chairman that under the NRC rules, the public could present

it's views, but that NRC could disregard them. My letter to the editor of the Patriot, published on June 21, 1977, is headed NRC Ignores Public Views. You have a copy of that.

It is hoped that our presence today will not be ignored by this Commission. Unlike the TMI uncontrolled reactors, our views are controlled reactions. With serious threats to our lives, the lives of our children, and to future generations. As we observe this year, the International Year of the Child, let us understand that in nuclear power and weaponry we have the most flagrant abuse possible to the lives of our children, and to survival of the human species.

Before TMI nuclear power was generating electricity, it was exposed as being -- before TMI, before the accident, nuclear power for generating electricity was exposed as being inefficient and costly as well as being a health menace. To depend on nuclear power for our energy needs is like betting on a sick and now crippled horse to win the derby. The people in our country and around the world are becoming aware of nuclear hazards and will not permit them to continue. As evidence, I refer to the recent demonstration in Washington with Dr. Barry Commoner, stated that May 6, "will be known as the day solar energy was born and the nuclear age died."

That completes the written statement. I would just like to make reference to the fact that we have had plenty of warnings about this, dating from the very beginning of the atomic age. When the atomic scientists who were involved in the Manhattan

project recognized the dangers and formed an emergency committee of atomic scientists. I have before me a letter dated August 6, 1947, signed by Albert Einstein. He was Chairman of the Committee of Atomic Scientists. We must remember that the radiation from atomic bombs is no different from the radiation from a nuclear power plant. The effects are the same on the people.

At that time he pointed out "we scientists believe upon ample evidence that the time of decision is upon us, that what we do or fail to do within the next few years will determine the fate of our civilization. We call for a higher realism which recognizes that our fate is joined with that of our fellow countrymen, and fellow men throughout the world. Great ideas may often be expressed in very simple words. In the shadow of the atomic bomb it has become apparent that all men are brothers. We recognize this as truth and act upon this recognition mankind may go forward to a higher plane of human development. The angry passions of a nationalistic world engulf us. We are doomed."

CHAIRMAN KEMENY: I'm intrigued by your opening paragraph in your statement. Could I presume, one fact that you say there that I didn't know before. Can you hear me?

MR. LOWENTHAL: I'm listening.

CHAIRMAN KEMENY: In your opening paragraph, you have a fact I didn't realize before. You said that the radio pointed out that the movie, China Syndrome arrived about the time of the

accident. Do you happen to remember how much before the accident the movie arrived?

MR. LOWENTHAL: The movie was playing in the area at the time. I didn't get to see it. In fact I didn't get to see it for several weeks. But it was playing at the time.

CHAIRMAN KEMENY: Other questions? Thank you very much for your thoughtful statements.

MR. LOWENTHAL: You're quite welcome. (APPLAUSE).

MS. JORGENSEN: Bruce Smith, please.

MR. SMITH: Mr. Chairman, members of the Commission, I'm Chairman of the Newberry Township Board of Supervisors. Newberry is a community of eight thousand five hundred residents in York County. Right across the river from Three Mile Island. Newberry completely surrounds Goldsboro, in fact, all roads into Goldsboro must pass through Newberry Township. Like many other elected officials, I did not evacuate during the crisis. So my remarks and observations are as a direct result of my experience.

Approximately fifty percent of the residents in Newberry Township did evacuate during the crisis, and ninety percent of the residents in my development, which is two and a half miles from TMI, evacuated. The citizens of my community have suffered financially and mentally through the fiasco of Three Mile Island. They stand to lose more financially, suffer more mental anguish depending upon the findings of this Commission. But no matter what your findings, no matter what your recommendations, no

matter whether the nuclear reactors are reactivated, all of the residents living within the five mile radius have four gigantic permanent reminders of Three Mile Island. These four reminders dominate the five mile radius area of Three Mile Island, just as the skyscrapers dominate the New York skyline. The difference of course is the psychology accompanying the effects of seeing the cooling towers. These constant reminders of the accident also constantly remind residents of the five mile area of radiation, Met Ed, NRC, evacuation and in some cases, panic.

The size and proximity of these four towers also explains why the distance from the towers mean so much in an objective and emotional opinion about Three Mile Island. For the sake of brevity, I have narrowed my problems with TMI to four basic areas, one for each of the towers.

First, poor communications. The first elements of distrust formed in the manner in which the news of the first release of radioactivity was spread throughout the area. I was called to the office of the high school where I teach, informed on the phone by two Harrisburg reporters that there was a release of radioactivity at Three Mile Island. I called our police department for confirmation and learned that a Met Ed truck was measuring radioactivity in Newberry Township.

During the entire period of the crisis, the best way to learn what was happening at Three Mile Island was to watch the six o'clock news or buy the newspaper. I can understand this

for the rest of the world. But not for the municipalities next to Three Mile Island.

My second problem relates to the evacuation plan. From the moment of the first radioactive release, evacuation plans were not followed. In our case, perhaps the real reason the plans were not followed to the letter is the fact that the evacuation point for the 8,500 residents of Newberry Township was Fishing Creek Elementary School, which was evacuated on March 30.

My third problem area is the insurance payments for those who evacuated following the governor's recommendation. To draw a parallel, each of you on the Commission, lives close to some landmark. Now, can you tell me exactly how far you live from that landmark? If it's five and a quarter miles, and not five miles, that spells the difference in being paid and not being paid. Would you bother to measure if you had been frightened already by conflicting news releases? Now let's add another unknown. The age of your children. You stay for your seven year old and leave -- excuse me -- would you stay for your seven year old and leave if he was a year or two younger? Now make your decision when you're at home alone, and your husband can't even call you from Harrisburg because all the telephone lines are jammed. The final ripoff for Newberry Township residents occurred after the accident when NRC brought the body scan machines to Middletown. Not only did west shore residents have to drive fifteen or twenty miles to Middletown for a body scan,

the Township and Goldsboro residents were not even eligible for body scans until I personally complained to DER. After much ado, Newberry Township residents could call, and it's a long distance call, at their own expense, to arrange an appointment. Then Township residents could drive, and I say fifteen or twenty miles because we clocked it on the way down. At their own expense all the way to Middletown. Then the final insult, long lines at the body scan machine.

Four towers, four ripoffs for Newberry Township. The Washington reporter who wrote about the melt down of trust knew the minds of many residents who live within the five mile radius. We trusted both Met Ed and the NRC before March 28. The trust has been destroyed. And there are four permanent, towering, gigantic reminders of our lost faith. We thank God that no melt down occurred within the reactor. But not even God can restore the melt down of trust that has occurred in Newberry Township and central Pennsylvania.

That's the conclusion of my prepared remarks. And if I may add just one or two things from my observations of your questions to other persons who testified before me.

We moved into the area in Newberry Township in 1965. So that was before the nuclear power plant was built. I believe it was Governor Babbitt that asked the question about a referendum or whether we had any voice in whether the nuclear reactor was built. Nobody asked questions. We have a lot of different municipalities, and I believe Met Ed purchased the island in



the middle of the river and proceeded to build. I question whether I would have protested, because as I said in my prepared remarks, I trusted that they would build a perfectly safe nuclear reactor. And since everybody else ends up with a plea to you, the President's Commission, I will too. I hope that you will find the truth, report the truth to the public and the President, and don't yield to the pressure of economics or politics. Thank you. (APPLAUSE).

CHAIRMAN KEMENY: I think that's one promise I can make on behalf of the Commission, that you will find the truth and will not yield to the pressures of politics or economics.

UNKNOWN SPEAKER: You mentioned the long lines for body scanners in your testimony, and I'm interested to know, at that time, what was being told people about what they would know after they went through the body scanners. In other words was there a sense that if you were checked out, then it was clear you were o.k.? To what extent was that being said, or was it simply being described as an additional, precautionary diagnostic tool of some kind?

MR. SMITH: The impression I received, and it was strictly from newspaper reports and television, was that the body scan would reveal whether you received excessive dosages of radiation. And to my knowledge, I believe they found only nine people that they said received excessive doses. That's all I know, relating to what I've read in the newspapers.

UNKNOWN SPEAKER: You don't know what further was said



to those people?

MR. SMITH: To the ones who --- (interrupted).

UNKNOWN SPEAKER: To the ones who had apparently received excessive doses?

MR. SMITH: I read again that there was supposedly follow-up done. I read also that one of the people was very dissatisfied with what had occurred. Newspaper reports strictly, sir.

UNKNOWN SPEAKER: Thank you.

CHAIRMAN KEMENY: Commissioner McPherson?

MR. McPHERSON: For those of us living elsewhere, we heard an awful lot of the coming of one Harold Denton of the NRC. I may have missed his name but I don't think I've heard it today. And I wonder whether the impression we got that he brought order and coherence and a sense of reliability to matters at Middletown was true insofar as the people of Middletown were concerned.

MR. SMITH: I would imagine you'd get back to white hats and black hats. And through the concealed statements -- not concealed -- the statements of Met Ed through Wednesday and Thursday, they had such black hats that anybody that came in and told the truth as he understood it, and he wasn't from Met Ed, would wear a white hat. The other -- my reaction relating to that -- Mr. Denton represents NRC, and the more I read the more I feel that NRC had failed us in the past and it's difficult for me to put a white hat on anybody from NRC. (APPLAUSE).

One more thing, I believe I evaded part of your question, and I've observed the other questions that you've been asking. The thing that he did do was give one voice as to, this is the way it is and this is the way you should react. And that was missing before because I definitely remember the first Wednesday Lieutenant Governor Scranton felt that he had been deceived by Met Ed in the statements, and he said so publicly. I also was with a group of Newberry Township residents, went down and saw Senator Schweiker. Senator Schweiker had toured the plant on Thursday. And one of his aids told us that at the time he returned and he found out while he was there he had not been told what radioactive water was being released, and he was infuriated. And it gets me back to my original statement that Met Ed was concealing the truth. So Harold Denton could come in and be the one voice and be accepted by the United States as the person who's telling the truth.

CHAIRMAN KEMENY: Commissioner Marrett?

MS. MARRETT: I wanted more clarification on your comments regarding evacuation. According to your statement, the evacuation plan was not followed. Now, from some of the earlier testimonies, people have indicated the absence of evacuation plans. Secondly, since there was no required evacuation, I guess I'm just not clear on what you're referring to here.

MR. SMITH: I was going to attach, and I do have along a copy of the evacuation plan for Newberry Township that had been distributed prior to the accident. And in it there are various

things that are supposed to be done depending upon what the accident is. And the one thing to be done that caused me to make the statement is this. If there is release of radioactivity you're supposed to evacuate the area. Now these were the evacuation plans that were given the elected officials of Newberry Township, I think last year. We were to distribute them. Nothing was said as to how we were to distribute them. We chose to distribute them with our tax notices. And no matter how you would distribute them you would have the problem, we ran out of them. They hadn't supplied us with enough of them. Now all of this was prior to the accident. And at the time that we were given these. Well, I have -- let me just read the very, very first part of it. It's from the York County Emergency Operation Center. And if you are interested in this I do have copies and I can give each of you a copy. It starts we in civil defense are absolutely sure that the atomic power stations were constructed with every possible safety factor. We are also positive they are operated in the same manner. However, based on a study by the Department of Environmental Resources, we cannot ignore the fact that the following emergencies or accidents could occur. Then they categorize them into five different ones. And the first two are accidents concerning potential release into the atmospheric environment. The third one is release into the atmospheric environment, and this is the part that nothing was followed. Because had this been followed, they would have evacuated. And they didn't follow

this from the very first Wednesday, as I interpret it. They didn't follow this or they would have evacuated the area.

MS. MARSHALL: Your understanding was that once an accident occurred, evacuation automatically would be called for? Is that the way you understood it?

MR. SMITH: According to this release that we received from York County Emergency Operation Center. And this is the release that has on it what I stated, Fishing Creek Elementary School, where all eight thousand five hundred residents were supposed to go. And it was evacuated on Friday. And this was all before new evacuation plans were drawn up. And they were drawn up after, they were drawn up Sunday.

CHAIRMAN KEMENY: Thank you very much for your testimony. Commissioners, I have to raise the dilemma. We still have fifteen more witnesses scheduled. I am going to make myself most unpopular with the suggestion and you can take it up privately with me after the meeting. Would you be willing now to take a twenty minute break and then go on until 9:00 p.m. And then have dinner after nine? Frankly, I'm not very much in the mood for dinner myself.

UNKNOWN SPEAKER: We can't hear you.

CHAIRMAN KEMENY: You can't hear me, or you don't want to hear me, I don't know which is the case. I said I'm going to make myself most unpopular by saying that we have fifteen more witnesses, and we must adjourn by nine. The only alternative I can think of to propose is that we now take a twenty minute

break and then go without dinner until nine o'clock and I added that frankly I wasn't very much in the mood for dinner after the testimony myself. So, how do the rest of you feel about it? Are you willing? I then declare a twenty minute recess and we'll do our very best to hear all of the remaining witnesses before nine p.m.

(BREAK)

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## SECOND MEETING OF THE

PRESIDENT'S COMMISSION ON THE  
ACCIDENT AT THREE MILE ISLAND

MULTIPURPOSE BUILDING  
CAPITOL CAMPUS  
PENNSYLVANIA STATE UNIVERSITY  
MIDDLETOWN, PENNSYLVANIA

SATURDAY, MAY 19, 1979  
EVENING SESSION

ATTENDEESCOMMISSIONERS

John Kemeny, Chairman  
Patrick E. Haggerty  
Carolyn Lewis  
Harry McPherson  
Cora B. Marrett  
Theodore Taylor  
Anne Trunk

STAFF

Barbara Jorgenson  
Bruce Lundin  
Ronald B. Natalie

APPEARANCES BEFORE THE COMMISSION

James Hurst, Private Citizen  
Georgia Lookingbill, Private Citizen  
Marjorie Tennyson, Private Citizen  
John Simon, Private Citizen  
Michael Kirchner, Private Citizen  
John Hulsberg, Middletown Borough Environmental  
Advisory Council  
Bill Johnston, Private Citizen  
Alfred Mirando, Private Citizen  
Beverly Hess, Susquehanna Valley Alliance  
Jim Gormly, Private Citizen  
Virginia Southerd, Private Citizen  
Jane Grey, Private Citizen  
Larry Hochendoner, Private Citizen

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CHAIRMAN KEMENY: Will the meeting come back to order, please. We're going to do our very best to hear the remaining 15 witnesses, but we have to adjourn at nine o'clock. So may I call, if I am right, our next witness is Mr. James Hurst. Mr. Hurst.

MR. HURST: Thank you.

Good evening. Before I begin, I would like to say that Dr. Barnoski, who spoke with you before--I am combining my efforts in Middletown with his, and that he and I share many of the same concerns. We are working with the local group in Middletown, PANE, People Against Nuclear Energy.

I was born in this town almost 34 years ago. I was educated in the Middletown schools, where I learned about our government and the democratic way of life, about the land of the free and the government of the people, by the people, and for the people. My early years were during the aftermath of World War II. I remember watching the war planes fly into and out of Olmstead Air Force Base, and the feeling that I had knowing that those planes had been used to protect my country and its people by not allowing outside influences to threaten our American way of life.

There's no way I would have believed anyone who tried to tell me that my government would willfully allow the health and safety of its people to be threatened for any reason. With that confidence badly shaken, I sit here

before you today, a Commission appointed by the President of my country, to tell you of my concerns relative to the recent accident at Three Mile Island.

Should there really be any questions in any of your minds about what my concerns are, about what our concerns are, or should be? Storage tanks of nuclear wastes located around our country, many of them leaking their deadly mixtures into the earth and the air; nuclear power plants, all of which leak planned or unplanned amounts of radioactivity into the environment. These things pose an extremely serious internal threat to the lives and safety of the American people.

Here in Middletown my family has been exposed to unknown amounts of radiation over the last seven weeks. We don't know how much because we haven't been told how much. To use the words of Mr. Herbein, one of Met Ed's vice presidents, and I quote, "I don't know why these people feel that we have to tell them everything we do." End of quote. Well, I'd like to tell you why. And I'd like to tell him why. Because our lives depend on it, that's why.

I find it extremely discomfiting that I unknowingly put the lives of my family in the hands of a company which didn't know until Friday that it had had a deadly serious problem on Wednesday. Wouldn't that disturb you?

As little as seems to be known about the health effects of longterm exposure to low level radiation, and

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as different as the reported measurements have been of how much radiation we may have been exposed to, one point of agreement exists: the more radiation a person can avoid, the better off that person is.

I have a five-year-old son who for his first two years was under constant medical attention. He spent months in the Harrisburg Hospital and in the Children's Hospital of Philadelphia. He received numerous chest X-rays in an attempt to diagnose a serious lung infection. He doesn't need the free X-rays which he's been receiving the past seven weeks. None of us need them, nor should we tolerate getting them.

Of course, we could take the advice of some of the mental giants of the area, who have declared, "If you don't like it, leave." However, as I stated in my beginning comments, I've been a Middletowner for 34 years. TMI Units Number One and Two have been here approximately five years. During that time, it has become obvious to me that we cannot coexist without serious jeopardy to my family's security, health, and mental well being, which was not the case the 29 years before they moved in. Therefore my conclusion is, they must go.

And to quote Dick Gregory, "I would rather see brownouts and blackouts than people-outs."

Thank you.

(Applause)

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CHAIRMAN KEMENY: Professor Taylor.

COMMISSIONER TAYLOR: At what time or when did you have the impression that the accident was a lot more serious than everyone had been led to believe during the first day?

MR. HURST: Well, I first learned about it on Wednesday like everyone else. That's when it happened. I was involved with an antinuclear group in the area approximately two years ago. The extent of my involvement was merely to inform myself, to read, to find out whatever information I could.

So when the whole thing happened on Wednesday, I think I was probably more skeptical than most local residents, I'd like to think because I knew a little bit more about it than most local residents, although I'm not a technologist. However, I put my faith in the people who were supposedly in control, and I assumed that it was as they said, a minor leak, a minor problem. I didn't like it, but I didn't leave or think of leaving.

Friday morning I went to work and at about 9:30-- incidentally, I have the reputation among my fellow workers of being an antinuke, so everybody kind of jabbed me a little bit when the whole thing happened. But a fellow came in the office and he said to me, "Did you hear the latest? Do you know what's going on down there?"

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Well, I'm in Harrisburg working and my family's in Middletown. So I was very curious to find out what was going on. And at that point, a fellow who works with me in my office, his wife was employed by the Department of Environmental Resources, and about the time this fellow told me what he had heard, the phone rang, and it was my friend's wife, and she said, "Something terrible has happened. They've just called a very big meeting of all the experts here."

So that was when I really knew that things were bad.

COMMISSIONER TAYLOR: Thank you.

CHAIRMAN KEMENY: When on Friday was that?

MR. HURST: When Friday?

CHAIRMAN KEMENY: Yes.

MR. HURST: Approximately--

CHAIRMAN KEMENY: Just morning or afternoon.

MR. HURST: Nine-twenty in the morning.

CHAIRMAN KEMENY: Thank you.

Thank you very much.

MR. HURST: Thank you.

(Applause)

MS. JORGENSON: Georgia Lockingbill, please.

MS. LOOKINGBILL: How can I tell you the terror a mother feels when confronted with the choice of risking her children's lives and health in the midst of confusing and contradictory advice of the so-called experts?

Still today, the recollection of the seven days from Wednesday, March twenty-eighth to Wednesday, April fourth brings a sickening knot to my stomach, an unsettled guilt to my conscience. Did I make the right choices for my children, or did I leave them a legacy of ignorant misjudgment? Only time will tell.

Who can judge what impact on a six-year-old child the events of that week have made? How does my six-year-old interpret the announcement by his school principal that there is poison in the air outside, and no one will be allowed out for recess? How does a nine-year-old react when, one by one, his classmates are called out of the room by panic-stricken mothers, yet there he sits? Would he wonder why his parents weren't concerned enough for his welfare to call him home as well? Could he appreciate that we trusted the experts giving advisories as to the need for evacuation?

Friday afternoon it became apparent to my husband and me that the experts were in total chaos, and we finally could stand no more of the double talk and contradictory press releases. This hydrogen bubble might as well have been a hydrogen bomb as far as its impact upon our already thinned out nerves. We decided to leave.

What did our children perceive was happening when we hastily threw clothing together, leaving behind their cherished pets, and nervously headed for Philadelphia?

There they would have to stay for a few days because it was safer than home.

My husband and I returned to Hummelstown Saturday morning. He's a physician at the Hershey Medical Center, and I am a nurse at a children's care center located exactly five miles from the nuclear power plant. For the next two days, Saturday and Sunday, the numbers of our staff dwindled to a bare minimum, as more and more of the Middletown residents left their homes.

Those of us who remained to care for the 65 physically and mentally handicapped children became increasingly nervous and uneasy as news bulletins continued to follow the activity of the hydrogen bubble. Reports were constantly fluctuating, and it was very difficult to sort through the diverse bulletins to determine how imminent the danger was.

My memory of those days at work is vivid. I listened with apprehension and fear to every news release. I watched the uncertain eye and tension-filled faces of other fellow workers, all of us longing to be with our own children, crying inside because we had left them alone with friends or relatives to fulfill our professional responsibilities.

We did put our trust in our local officials and our news reporters and our scientific experts. Now I ask, "Can they guarantee my trust was not misguided?"

I hope there will never come a day, as I watch

my children grow and reproduce a new generation, that I will have to ask myself if any of the pollutants from this accident were responsible for a resulting medical tragedy to my loved ones.

This was truly an invasion of our private lives, a horrible nightmare.

I am concerned for myself and for my own family's future should Metropolitan Edison reopen the TMI plant. I am also concerned for the financial impact this accident has had on my local economy. The builder of my development recently advised my neighbor not to try to sell his property now, because he's finding prospective buyers very reluctant to invest so near to the nuclear plant site six miles away.

For all of these reasons, I am working diligently to discourage the reopening of Three Mile Island or any other nuclear plant in this country.

I will not pay for this reckless irresponsibility by Met Ed in particular and the nuclear power industry in general. And that is why I asked to speak out today.

Thank you.

(Applause)

CHAIRMAN KEMENY: Any questions? Professor Marrett.

COMMISSIONER MARRETT: Yes, one question with reference to your last paragraph, where you indicate that "I will work diligently." Could you say something about what

that's involving? Does that mean that you are joining with organizations, or just how are you pursuing that?

MS. LOOKINGBILL: My local community has formed a group which we now call the Hershey Area Alliance. We meet once a week, right now in people's homes, and we're hoping to get a larger facility in the community center, where more of the area residents can become involved. We form committees to gather information, booklets on educating people as to the dangers and all the information regarding nuclear energy and alternate sources of energy. We have a lobbying group to go to our local representatives. We are going to shopping centers and distributing lists of people to write to express local feeling about the accident. And we are trying to plan a town meeting in Hershey on June sixth, with speakers for the people to come and voice their opinion.

CHAIRMAN KEMENY: Commissioner McPherson.

COMMISSIONER MCPHERSON: Mrs. Lookingbill, you say in your statement that when you came back from Philadelphia on Saturday morning, that over the next two days, Saturday and Sunday, the members of the staff dwindled to a bare minimum as more and more residents left their homes. Do you have any idea generally what the medical care situation was in this area by Sunday? Had very substantial numbers of physicians and nurses left the area?

MS. LOOKINGBILL: It was my understanding that

quite a few of the medical personnel, particularly from the Hershey Medical Center, were not available after Friday.

From the center I worked, we were working on a bare minimum, and the children were getting strictly necessary care.

The two old age homes in the area, Fry Village and the Odd Fellows Home, already evacuated on Saturday, but we, being the third facility, didn't evacuate over that period of time because there was such great confusion as to where we were supposed to go. No one really knew.

COMMISSIONER MCPHERSON: Was there a plan of evacuation for your hospital?

MS. LOOKINGBILL: My personal opinion was that the plan was very unclear. The Civil Defense wasn't sure where we were going to go, and the administrator of the care center thought the Civil Defense knew where we were going to go, and it became clear to me on Saturday night that no one really knew where we would be going. So my opinion is that it would have been difficult to evacuate that center given the circumstances.

COMMISSIONER MCPHERSON: Thank you.

CHAIRMAN KEMENY: Thank you very much for your testimony.

MS. JORGENSEN: Marjorie Tennyson.

(Applause)



MS. TENNYSON: I have never experienced more frustration in trying to obtain enough information to make a rational decision for my personal safety than I have since the accident at Three Mile Island. I had tried to become educated about nuclear power before the accident by visiting the reception center at the plant and even reading every piece of literature provided to me by Metropolitan Edison at that center. It was not until after the accident that I realized how much I did not know.

The nuclear industry makes a distinction between experimental and commercial reactors in quoting safety records. For this reason I never looked farther than the assurance of 30 years of commercial nuclear power generation without a death or serious injury. That sounded to me to be an excellent safety record. I believed Met Ed's convincing evidence that a major accident with off-site contamination was almost impossible.

What knowledge I now have of the problems of nuclear power production has been attained through the persistent tracking of the news media, library research, and extensive reading since the accident. In spite of my efforts to become educated in order to better assess my safety in living three miles from the reactor, there are several questions which have not yet been explained or answered to my satisfaction. I do not feel that I should have to dig on my own for these

answers.

Most importantly, I do not understand why the person-rem figure, and resultant cancer probability, was calculated for a 50-mile radius when only those within a five- to ten-mile radius were actually exposed. I feel it irresponsible to the residents within a five-mile radius to determine the risk of cancer on the average dose for a fifty-mile radius. In this way, the dose can be diluted by the two million living in York, Lancaster, Reading, as well as Harrisburg. Statistically then, on paper, each person has a much smaller share of the total dose.

This figure should be determined by dividing the number of people only in areas where significant increases in radiation actually occurred. When the dose is calculated for the five-mile radius, will we see the predicted cancer deaths rise from one to ten, to one hundred to one thousand local residents? I hope that I do not understand these statistics.

It is difficult to accept without question the official estimates when monitoring was nonexistent in most areas from four A.M. until midmorning on March 28th. Local radio stations reported the radiation level at four to seven millirems per hour within two to three miles of the plant even on the afternoon of March 29th. A quick calculation led me to believe that residents had received a minimum of

96 to 168 millirems in the first 24 hours. Yet I am told to believe that the maximum dose at one mile was 90 millirems over six weeks. Why are these after-the-fact figures so much lower than those reported before the NRC arrived?

I feel that the lack of hard facts during the accident with respect to our future safety means that there are none. Scientists do not like to give opinions as fact, as company officials and politicians are apt to do.

I admit to being more anxious as to what to do than I have ever been before. The official word was "business as usual", but the consequences of an error in judgment could be life-threatening. Governor Thornburgh made a decision for all of us with not much more information than our own in telling us we were safe on March twenty-eighth and twenty-ninth.

Most residents did not seem to feel much anxiety until warned to prepare for evacuation on Friday morning. Perhaps my knowledge was enough to make me believe that the radioactive steam release from the reactor indicated a serious problem. I had decided to leave the area on Thursday and remain away until I had more assurance of safety.

For the safety and peace of mind of the residents subjected to future nuclear accidents, I feel it imperative that a President's Council on Nuclear Education be created to provide mandatory education within schools and communities

near reactors. These leaders could provide the layman with the skills to understand and live with the technology of the nuclear sciences. Residents could be taught to use film gauges and geiger counters so that at the least, they could monitor their own exposure in the event of an emergency. They must know the criteria for a decision to evacuate, if such an evacuation is in fact possible. There must be someone within the plant who must take immediate responsibility for providing the public with the facts, good or bad, in the event of an incident, or an accident.

I, for one, formerly fully accepting of nuclear power, would prefer to change my attitudes about the energy which I have often consumed with abandon, than to ever experience another nuclear accident. Unfortunately, no one has assured me that the accident at Three Mile Island is over.

Thank you.

(Applause)

CHAIRMAN KEMENY: Professor Marrett.

COMMISSIONER MARRETT: You commented on the fact that you would have liked to have had more information on which to base your decision, and this is of course something that a number of people have indicated. But could you indicate what kind of information, what kinds of facts, might have been useful to you? Because I think also in

your statement you say "fact good or bad", and I'm not sure whether it's the absence of information or something about the quality of the information that was of greatest concern to you.

MS. TENNYSON: It was actually both. During the initial stages of the accident, we did not have any idea whether or not, first of all, we received any truthful information, and second of all, how bad the situation was. We knew what the situation was at the present, you know, four to seven millirems, or so we thought at the time that we knew, but we didn't know what to expect in an hour, or in a day, or whether we were suddenly going to be subjected to the knowledge that we had three hours to get, you know, fifty miles away, or--we had no idea what was coming next. And I think that that in itself created more anxiety for me, not knowing that the scientists had the reactor under control or not. It was all--you had to guess. You had no idea.

And I assumed, because I had read Metropolitan Edison's information, and they had never mentioned that any radioactive steam ever escaped the plant, whether routinely or in an accident or anything else--they never even talked about an accident. So that I figured if it had been released, it had to be serious, that that was not one of the things they said could happen. And that was the only thing I could

go on.

COMMISSIONER MARRETT: Well, I guess in terms of what kind of information would be useful, do you mean a kind of technical briefing that would have been preferable, or is there something more you're saying, "I'd like some advice on what I should do," or just what--again, what kind of information?

MS. TENNYSON: Well, I guess what I wanted was to be told either, "It's safe. You can stay," or to be told, "We don't know what's going on. If you'd like to leave, perhaps you should." And no one was willing to say either one with authority. And I don't like to hear from a nontechnical person that it's safe. I'd like to hear that from the chief engineer of the plant, not from the Governor, although I respect what he had to do. I don't feel that he's the person that I would like to have heard that from.

CHAIRMAN KEMENY: Commissioner Trunk.

COMMISSIONER TRUNK: What made you start learning about nuclear power before the accident?

MS. TENNYSON: I originally came to this area last fall, and I had never seen a nuclear plant, and I guess just the sight of it was enough to make me nervous, just the impressive size and the fact that I knew so little about something that seemed so big, and also that I was afraid of it, and I felt that with education maybe I wouldn't be.

CHAIRMAN KEMENY: Let me ask you one question. Have you seen The China Syndrome?

MS. TENNYSON: I saw The China Syndrome last week.

CHAIRMAN KEMENY: Last week.

MS. TENNYSON: Yes. Thank you.

CHAIRMAN KEMENY: Thank you.

(Applause)

MS. JORGENSON: John Simon.

MR. SIMON: I have here a Holy Bible, and my hand is on it, and I willingly and voluntarily do swear to tell the truth, the whole truth, and nothing but the truth, so help me God.

Members of this Commission, my name is John Simon. My family and I live approximately ten and one-half miles west of Three Mile Island, in Upper Allen Township. I am a registered professional engineer in the states of Pennsylvania and Maine. I hold certification from the state of Maine Civil Defense Agency as a radiological monitoring instructor. I have also been a member of Citizens for a Safe Environment, based in Harrisburg, since it started in 1972. You may not know that Citizens for a Safe Environment was the sole intervenor for Three Mile Island Unit One.

On Unit Two, Citizens for a Safe Environment was joined by the Environmental Coalition on Nuclear Power. In regards to this matter of intervention, I have submitted for

the record a copy of the April Environmental Coalition on Nuclear Power newsletter, which gives a brief history of the two interventions.

On a personal note, my family and I experienced much inconvenience and psychological strain from the Three Mile Island accident. On Wednesday morning, I left for an overnight business trip, not realizing the severity of the accident, basically because of a lack of proper information. Wednesday evening, I called my wife to tell her to take a radiation reading in the morning before going outside. My wife and son, who is twelve years old, on Thursday morning took a reading with a CDV 700 and read three-tenths of a millirem per hour, or about 30 times background radiation level.

The public has not been told by Metropolitan Edison how much radiation was released Wednesday and Thursday, but I personally believe it was a great amount, especially after the containment explosion on Wednesday afternoon, approximately at one-thirty, I guess it was.

Upon returning home Thursday evening, I took a reading again that was approximately at background levels. It was a little bit but not that great above background.

The following day I went to work in Harrisburg, on Friday, not knowing at the time that the level of radiation in the city was two millirems per hour according to the reports that were in the paper. A call at work from my wife on Friday



morning, telling me of an unplanned release that had just been on the radio, compelled me to return home with some of my workers, as a matter of fact. My wife and I then took our son out of school and prepared to evacuate. By seven o'clock Friday evening, we were on our way for our week-long evacuation. It was a sad Friday for myself and my family because we truly believed that we probably would never see our home again.

I am personally outraged at the lack of information that was available to the public and myself for our use in decision making. Little did I realize on Wednesday as I was leaving the Harrisburg area and my family behind, that the Three Mile Island unit core was melting. There is no excuse for this situation existing. A technology that is so dangerous that cannot determine its state of affairs immediately and constantly, is not fit company for human beings on this Spaceship Earth. We must shut them all down.

I pray that my family and I were not damaged by the radiation that I suspect we ingested. Since the accident, I have my family on a higher mineral diet heavily supplemented with ocean kelp to help offset the iodine and other possible isotope ingestion that I believe we have been exposed to.

I am tired of hearing from the utilities and the atomic priesthood about the ignorance of the public concerning atomic energy. I suggest that the government and industry have had 30 years and lots of money to educate the public, but instead have

deceived them with only half of the story. This is the reason why the backlash from Three Mile Island will be so great. We have a 30-year Watergate on our hands.

An excuse for not evacuating that was heard during the accident was that "the people will panic." This is a cop-out, for if our leaders really believe this, then all the evacuation plans that we have in this country are worthless, and the result from a meltdown will be much more severe than any of us realize.

I believe in soft energy. I believe in appropriate technology. And I also believe that small is beautiful.

I also believe that whatever we do to the least of God's children we do unto Him. And I ask God to forgive all of us for what we have allowed to be done to our children and His children. God's children don't want more electricity. They want more love and attention. God's children don't want messed up genes. They want healthy children. And God's children don't want more free time on their hands. They want meaningful, productive work.

I believe that sacrificing together, conserving together, and changing our way of life together, that we can be free from the tyranny of bigness that is rampant in our land.

Please, I urge this Committee to help us in our work by finding out the truth, the whole truth, and telling us the whole truth, not watered down; give it to us straight. Then

we the people can start building a new society where justice and mercy, and not profits, reign supreme.

Thank you for your attention.

(Applause)

CHAIRMAN KEMENY: Excuse me. Since you're a qualified person to take readings, may I ask, what was the last reading you yourself took?

MR. SIMON: The last reading?

CHAIRMAN KEMENY: Yes.

MR. SIMON: I've taken readings just off and on for-- pretty much since the accident, but I have nothing that is significantly above background levels.

CHAIRMAN KEMENY: At the present time. I really meant to ask, before you left your home, before you decided to leave the area, when did you last take a reading? Did you take one on Friday?

MR. SIMON: On Wednesday morning, when I heard about the accident by accident--another gentleman and I were leaving our office, and the janitor was running around, and the other man happened to ask him, he said, "Well, there's been an accident at Three Mile Island." At that time, I tried to get hold of my wife, because I didn't have information. So I was leaving with this other gentleman on a business trip. So I said, "Well,"--I couldn't get hold of my wife. She was away bowling, unfortunately. So I went home and got the meter out

and took a reading at that time. This was Wednesday about 11:00 or 11:30. And at that time there was nothing above background-- at that time. So somewhere between Wednesday noon or Wednesday elevenish to twelve, when I left, to when I came back on Thursday evening, there was whatever you want to call it. There was a release. My wife said, she told me that Wednesday night and Thursday morning when she got up in the morning, that there was--I don't know because I wasn't there, but I would say she said there was like a fog, and it was something that--it's not usual in our area. So she sincerely feels, because I think that the weather report was that the wind--it had to be coming that way, because that radiation didn't come from any place else.

CHAIRMAN KEMENY: Yes. You did not yourself take a reading on Friday, did you?

MR. SIMON: I did not. My wife and son took the reading. I have shown them how to use the meter before, and it's a very simple meter, so I have no doubt whatsoever that what they took was accurate.

CHAIRMAN KEMENY: Professor Taylor.

COMMISSIONER TAYLOR: You said that on Wednesday when you were leaving your home to go to Harrisburg, you didn't realize at that time that the TMI-2 core was melting. What led you to believe that it melted, and when were you led to believe that it melted?

MR. SIMON: I did not realize that the core or any

paraphernalia had experienced melting until we were two or three days on our evacuation. And that was, I'd say, it must have been Sunday or Monday.

COMMISSIONER TAYLOR: And did you hear this, see it on television, or read a news report or something, that the core had actually melted or partly melted?

MR. SIMON: Pardon me? I--

COMMISSIONER TAYLOR: Did you hear on the radio or see on television or read in the newspapers that the core had melted?

MR. SIMON: To my best recollection, no, I didn't.

COMMISSIONER TAYLOR: O.K. Thank you.

CHAIRMAN KEMENY: Thank you very much.

MR. SIMON. You're welcome. Thank you.

MS. JORGENSEN: Michael Kirchner.

MR. KIRCHNER: Good evening to members of the Commission. My name is Michael Kirchner. I am a resident of the Harrisburg area, and have lived in this area for most of my life, and have many friends and family throughout the area surrounding Three Mile Island.

I unfortunately missed Mayor Reid and his statement this morning, but I was fortunate enough to be with him in the borough office on Friday morning, March thirtieth, and it is the events of that morning that I'd like to relate to you at this time.

I arrived at the borough office just as the alert was given by the York County Police and Fire Network, radio net, concerning the detection of high levels of radiation on their side of the Susquehanna River. Immediately Middletown officials sent their own men out, firemen and volunteers, with geiger counters to see if there was any pending danger.

MS. JORGENSEN: Mr. Kirchner--

CHAIRMAN KEMENY: Could you move a little to the mike on your left?

MR. KIRCHNER: Surely. To see if there was any pending danger to the community, and also to warn area residents to stay indoors and close all windows.

With no information to go on other than there was an alert, Mayor Reid tried to reach Three Mile Island by telephone, only to find the lines were jammed with incoming calls from residents wanting to find out what was going on. When he finally did get through to the Island, he was told to call the main office of Metropolitan Edison in Reading, Pennsylvania.

Meanwhile, on the television that was in the police radio room, a message was flashed from Governor Thornburgh concerning the possible evacuation of the area surrounding Three Mile Island. The first comment in the room at that time was, "Evacuate? My God, where?" Apparently no plan was ready. One was said to have been talked about the month before.

Mayor Reid did manage to get through to Metropolitan

Edison's main office, only to be told the officials of the company were at a meeting concerning TMI, and that they would have an official call him back as soon as the meeting was over. Other than that there was no information they could give him at that time.

The next problem that arose was concerning the children in the schools. The schools were being given conflicting information, or conflicting instructions, to either keep them in the building, to evacuate them to the Farm Show, or Hershey Arena, or send them home to their parents, as many parents demanded who came to the schools to get their children.

To say the least, it was a hectic situation. The Middletown firemen, who were taking the readings around the borough, returned saying that they could not detect any serious amounts of radiation, and so the threat of an immediate danger was past.

But the point that I'm trying to make is that if there was a serious release, many of us in the room here would not be here today.

Thank you very much.

(Applause)

CHAIRMAN KEMENY: Professor Marrett.

COMMISSIONER MARRETT: I just wanted to get clarified your own position. You said you were in the Mayor's office at that time. Do you work in the Mayor's office?

MR. KIRCHNER: No, I do not. I am an engineer for a local radio station. I was assisting a network reporter who was trying to reach Mayor Reid. We just happened to stumble in as the alert was going out, and stayed indoors when the alert came out.

CHAIRMAN KEMENY: Thank you very much.

MR. KIRCHNER: Thank you.

MS. JORGENSEN: John Hulsberg. Is Mr. Hulsberg here?

CHAIRMAN KEMENY: Yes, he is coming.

MR. HULSBERG: Honored members of the Commission, our concern as Middletown Borough Environmental Advisory Council in relation to the incident at Three Mile Island is concerned in the following areas.

Baseline data should be gathered area-wide from citizens immediately for an epidemiological study concerning the long-term effects of low level radiation.

The results of the radiation monitoring at various locations should be published so that residents can estimate the exposure they received during the TMI incident.

Because radioactive waste disposal is a problem for the surrounding communities, and places that accept our nuclear wastes, we feel that a definite Federal solution must be found before any more nuclear plants are approved.

Before TMI is reopened, we feel that a set of workable evacuation plans must be developed and approved by local



municipalities. These plans should then be practiced, especially by public institutions, at least once, and then updated periodically.

Rules and regulations developed by the NRC must be strictly enforced to ensure safe operation of the plant. Full time inspectors are a necessity.

The utility and its workers who ignore the NRC rules should be subject to fines for infractions.

In conclusion, we feel that funding for alternate sources of energy should receive major priority immediately, along with increased incentives for conservation of energy so that future generations do not have to endure the mental anguish and health uncertainties that we have experienced.

Thank you.

CHAIRMAN KEMENY: Commissioner Taylor.

COMMISSIONER TAYLOR: Have you discussed this matter of having practice evacuations with other people in the area? Do you get some sense of whether they think that's a good idea or not, or have some problem with it?

MR. HULSBURG: Well, it could be done, for instance, say, in conjunction with a picnic at Hershey, or something like this. I mean, certainly it doesn't have to be a major thing. I think by possibly even paying people to get out of town and giving them a certain amount of notice, or something like this, at least it could be shown that a sizable proportion

of Middletown could get out.

COMMISSIONER TAYLOR: I'm trying to get some idea from your observations of your sense of whether generally there's a receptiveness to this idea of practice evacuations in the style that I think you were suggesting in the way you talked, not as a big dramatic difficult thing, but to try it out. I'm just curious about whether you find other people seem to want that.

MR. HULSBURG: I think interest could be generated.

COMMISSIONER TAYLOR: Thank you.

CHAIRMAN KEMENY: Questions?

Thank you very much for your suggestions.

(Applause)

MS. JORGENSON: Bill Johnston.

MR. JOHNSTON: Good evening, Mr. Chairman and members of the Commission. My name is Bill Johnston. I live about a mile up over the hill here. It's called Shopes Gardens.

At the outset of this I would like to make a point, because it might get lost in my later narrative, and I don't want that to happen. I just have one constructive thing to say, and that is this. I can't produce statistics to support what I say, but I could find it if necessary. Now, it seems to me there is one possible compromise. I have read somewhere that, bearing in mind that a steam generating plant is essentially the same whether it's run by atomic energy or whether it's run

by coal or oil or gas. And at the state this thing is in down here, where 30 million dollars worth of damage has been done, the question arises, wouldn't it be just as cheap to supplant the nuclear pile with coal?

Now when I say coal, immediately people get visions of pollution, smoke and so forth. They're talking about soft coal. Anthracite coal is practically free of this. As a matter of fact, certain exceptions have recently been made to the pollution laws recognizing this. If this were not the point, at any rate they are pursuing means of cleaning it up. In other words, it can be burned by mixing it with sand, in an air stream, and so forth.

The point is this. I've been thinking about this all day, wondering what approach to take here. And maybe everybody can be satisfied. Hey, I don't care who runs that thing down there. I'll never be content while it remains in the condition it is until they take it to pieces, until they dismantle it, I'll never have a free moment, because I don't think we're out of the woods on that yet.

Hey, the point that I'm trying to make here, now, there's a precedent for this. This same company is presently making a coal generator. And the point arises in my mind, now maybe the lessons learned from this can be put to good use, and maybe there is some future for nuclear energy. But does it have to be in Middletown? Does it have to be on an

island down here in the middle of a metropolitan area? I sort of think we've paid our dues. Maybe we got a lethal dose of radiation. Maybe we didn't. But I think we got enough. We should not be exposed to any more.

There's been precedent for this. Some of these places in the past have been covered with cement. I mean, they--this happened in one case, I can't tell you what it is immediately; I could find it out for you, though--where something very much happened in this respect. In midstream they actually substituted the atomic portion of it with coal.

And I can't afford the luxury of wondering what's going to happen to the rest of the country. Hey, I don't want to see them hurt. Hey, nobody else wants this thing, I can assure you. Nobody wants it. But I don't want to see anybody else get it, but I can't afford that luxury. What I'm saying is this. Why do we have to get in double jeopardy? Hey, maybe by sheer bad luck in spite of all their efforts, they'll have another accident. Hey, give us a break, and take these things where--nobody really wants them--out into the hinterlands somewhere.

O.K., now I know that--and I'm going to try to--I want to say one other thing. I got one idea from this Commission at the beginning of this, and I don't blame you, where you had a certain doubt about the validity of this thing. I mean, how could anybody evacuate? There wasn't enough credence to this.

Hey, well, let me say this. I was one of the ones that evacuated. Now there were two classes of us, largely, and I think we both feel a little guilty: people like me who left and think, "My God, maybe I should have stayed; maybe I could have been of some assistance." The other people that didn't leave, some of them have told me, "If I would have only known the gravity of this thing, I would have left. This will dwell on me. I may have hurt my children," and so forth.

O.K., now, if anybody thinks that this was not valid, now when I say this, the National Inquirer even came out with one of their papers saying this was a hoax, that there was no crisis at all. Now this is the extreme that people can go to.

But now I want to give you my experience, and I'll make it brief. I'm retired. My wife still works. I sleep late in the morning. I have a television set by my side. I turned it on. I think it was the Today Show. And I saw a caption go through at the bottom: "Accident at Three Mile Island." I said to myself, "Gee, that doesn't surprise me," because I heard of other ones, but I thought no more of it.

And then a short time later I turned the radio on, and it so happens in our area we have a local announcer that's very flippant. Everybody likes him. And he's very clever for his asides and so forth. "Well," he said, "folks, I guess you heard about the accident." He said, "I guess we'd better believe it," he says, "What else can we do but believe it?"

Now he was reflecting our thoughts. None of us believed it, that there wasn't more to this thing, but I thought no more of it, and I made arrangements to have my car serviced, which it so happened was the thirtieth of March. I took it over to Paxton, which is a few miles from Harrisburg, met it there, and to kill time, I went down to the State Library, where I do a lot of browsing, and incidentally is where I get a lot of my information. So while I was in there I saw people congregated. I sort of sidled up to them. They were talking, to this extent, "How bad is it?" and "What are we going to do?" and "There's a liberal leave policy," and finally I got enough nerve up to ask this one guy, you know, I said, "What is going on?" He said, "Say, maybe you'd better get out of here." He said-- it was rumored through the Department of Environmental Resources-- now don't ask me to--I'm not under oath, and I can't differentiate hearsay from fact. However, this is what happened to me. I said, "What's wrong?" He said, "There was an explosion at Three Mile Island."

O.K., now, an efficient plant cannot explode. However, a hydrogen bubble could explode. And it seems they did have a slight explosion. And I said, "Hey, listen, it's just radiation coming out," and he said, "It may be more than that. It may be raw fuel." This was hard for me to believe, but hey, to make a long story short, I went down and got on the bus, sat next to a guy who was going home. He said, "We were told we could have

a liberal leave policy." So two and two started to go together for me. It was sort of an instinct.

I went out and got my car. I didn't have much money. I called my wife, who works over at the Navy Depot. I said, "Hey, listen, don't go home." I said to her, "No reason for you to go home. Meet me up"--we have a little cottage 60 miles up the river.

Now I didn't suffer any hardship, but some people did, but I just want to give you an insight into this. So we go up there, and here's where I learned a few facts of life. I didn't have access to much money. I never even went home to get money. I had traveller's checks and so forth lying around. It's the first time in over 30 years that I ever realized the raw fear of not having money. I had money, but I didn't have access to it. My whole values changed. If you think it's easy to cash a check or so forth in a strange place, hey, try it some time.

But hey, now, getting back to--now, that's pretty much the end of that part. We got out. A week later they relaxed things and my wife went back to work after the Governor took off the lid on people near Three Mile Island, but I just want to get into this, and then I'm going to make time--

CHAIRMAN KEMENY: Could you--

MR. JOHNSTON: I just want to get into one point, and that is this. If anybody says that he did not experience raw



fear when this happened, it is only for one or two possible reasons: one, that he didn't know, and this is quite possible, because I sure didn't till lately; and the other is, some people such as testified here who said they knew all along. Now how they could know all along--hey, anybody who would leave--that they would get four or five hours' notice to vacate--taken into effect there may be a traffic jam, people breaking down, and so forth--and feel and accept this, hey, I truly admire their faith. Now I'm not talking religiously, but I mean their faith in humanity and the infallibility of humanity. But anyway, getting back to the point of at least one witness who said that he had faith that he'd be told in time: he had more faith than the transcript of the minutes of the recording that was made in front of the NCR reported in the New York Times that went something like this: "Well, do you think we're going to win the horse race?" "Hey, what if we do"--at this time it apparently was out of control. "How long do you think it would take at the least?" "Well, maybe four hours." "Are you sure about that?" "No, I'm not sure." The other guy says, "Well, what have we got to hide?" He says, "If we can't reduce the level to the individual of the populace, maybe we can reduce the overall level, so why don't we give them a chance to get ahead of the plume?" Hey, now, the plume, of course, could be a mile wide and 75 miles long, and when anybody talks about evacuating anybody five miles or ten miles



or 20 miles, hey, really, they do really have faith. I mean, this thing could be traumatic in its effect.

(Chairman Kemeny raises his hand.)

O.K., I know what you're saying, I--

CHAIRMAN KEMENY: No, I'm just trying to be fair to the other witnesses, to make sure they have a chance.

MR. JOHNSTON: Well, am I too loud? Hey, I really, I promise you, I am going to leave. That's the reason I made my point before I started.

But I just want to say this. I got the idea when this Commission convened by some of the questions that it was questioned how anybody, and this is maybe one-third of the population of Harrisburg, would evacuate. And I hope I conveyed to you the stark terror. I spent fifteen hundred hours in the air during World War II over the Himalayas. And when you talk about stark terror, I experienced it in Harrisburg, and I'm not kidding.

CHAIRMAN KEMENY: Thank you very much. Thank you for appearing.

(Applause)

MS. JORGENSON: Alfred Miranda.

MR. MIRANDO: I am a merchant who has a business in New Cumberland, which is within the 10-mile radius of Three Mile Island. Wednesday afternoon I was travelling on business in the Philadelphia area. I had the radio turned on, and the

broadcast came over informing me of the accident at Three Mile Island. It was a helpless feeling being away from my wife and other people that I loved in the Harrisburg area, not knowing what the circumstances were.

I proceeded to travel back to Harrisburg and on returning, the press releases that were released on Wednesday and Thursday indicated that everything was under control.

CHAIRMAN KEMENY: Excuse me, could you speak into the left hand mike? We're having trouble.

MR. MIRANDO: Yes.

CHAIRMAN KEMENY: Could you repeat the last sentence? I would like to hear it. That everything was--

MR. MIRANDO: Returning on Wednesday afternoon and the subsequent press releases that were released indicating that everything was under control at Three Mile Island.

It is difficult to have a business and to just pack everything up and leave, so in order to make that decision, I wanted to get the facts. That was very difficult.

I stayed tuned to Thursday evening before retiring, and still everything was supposed to be O.K. So Friday we had our doors open. Our customers were in the store. And on the radio came the announcement that everyone was to stay indoors.

I'd like to report that the people that were in the store at that time became filled with fear. They recognized

the confusion, and it was a very traumatic effect for those people.

My wife and I proceeded to close the store and leave the area to New York. We closed the store for a week, because we were more concerned about our safety and health than we were about the profits of our business. I wish that the utility company had the same attitude. I wish the Federal government had the same attitude. And I wish the NRC and its regulatory powers had the same attitude.

Fooling with people's lives on this planet Earth is a serious consideration, a very serious consideration, especially when you don't know what you're doing. That is obvious. If anything that we've gotten out of this accident, we don't know what we're doing. It's obvious. Anyone who tries to say that we do is a fool.

I do not want low level radiation testing in my backyard because I think it's dangerous. If someone here or anywhere else in this country thinks that it's safe, then let those tests be done in their backyard.

My wife and I planned to have a child this year. We don't have any children, and yet we'd like to have one. We're not going to. I don't think it's worth it. So we're going to wait.

I could sit here and talk about the profit and the business ramifications that I lost being closed for a week.

That's a lot of working days. But I'm more concerned about health and safety.

I believe this planet and our lives are a gift of God. Nuclear power has the potential to destroy that gift of life on this planet. We don't need the storage problem that we can't solve. We don't need the rising costs that we can't control. We don't need background radiation that we can't agree on, on how effective or how damaging it is. We just don't need nuclear power. We really don't.

I am a businessman who recognizes the economic effects of Three Mile Island. I'm not concerned about tourism, because I don't know too many people who come to Harrisburg for their vacation. They might go to Hershey and they might go to Lancaster County, but they don't come to Harrisburg.

But I am concerned about the potential problem if Reactor One and Two is opened. Who is going to move or relocate to the Harrisburg area? I think it's going to be difficult.

I would love to see Reactor One and Two and all nuclear power plants in the United States closed for the safety of the citizens of this country as well as the mother Earth.

Thank you.

(Applause)

CHAIRMAN KEMENY: Any questions?

Thank you very much for your testimony.

MS. JORGENSEN: Beverly Hess.

MS. HESS: I would like so much to be heard. I wonder if you can hear me.

CHAIRMAN KEMENY: Yes, can you move a little closer to the mike? We can hear you, but a little closer would be better.

MS. HESS: Right.

My name is Beverly Hess. I live at Columbia RD One, about 16 miles to the south and east of Three Mile Island. I feel the weight of a very large responsibility. Four other people from the Susquehanna Valley Alliance had originally been scheduled for time tonight. Each of the five of us on the core committee of the group were to have had 10 minutes. Because so many people in this area want to be heard, we were asked to shorten our time to one 15-minute presentation. We did, and I am spokesperson for this group of Lancaster County people who are concerned about nuclear energy.

Having sat here all day and listened to people talk, I am deeply impressed with the kinds of testimony that have been given. And I hope that people in the Lancaster Alliance, the Lancaster area, will be as impressed as I am about the kind of effect that they have had on me and hopefully on you.

The Susquehanna Valley Alliance was formed after the nuclear reactor accident at Three Mile Island on March twenty-

eightth. About 50 people gathered in Lancaster's Penn Square on Saturday the thirty-first, even as many others of us were leaving the area for what we hoped were safer places.

Can you hear me?

CHAIRMAN KEMENY: We can hear you very well.

MS. HESS: Excuse me?

CHAIRMAN KEMENY: We can hear you very well.

MS. HESS: Thank you.

We're a really diverse group of people. About 150 to 200 people have been attending weekly meetings at the Lancaster Friends' Meeting House. Four to five hundred people attended a nuclear physicist's lecture at Franklin and Marshall College, and about the same number went to Washington on May sixth to demonstrate our concern about nuclear energy.

I want to tell you what our concern has been and what is happening to us, because you need to know that the Three Mile Island crisis is not over for those of us who get our drinking water from the Susquehanna River downstream from Three Mile Island. There are over 110,000 people in our area whose water comes from the Susquehanna River. We feel ourselves to be at peril because of Metropolitan Edison Company's plan to dump what is currently I think about 625,000 gallons of contaminated water which is in the containment building of the crippled Reactor Number Two, in the Susquehanna River.

We're disturbed that Lancaster Mayor Albert Wohlsen,

who was here this morning, had to read of that proposed dumping in the newspaper. Mayor Wohlson said on May fifth, "I don't know anything. Nobody tells us." This, after details of the dumping plan were disclosed in morning news reports.

Governor Thornburgh is another person who wasn't aware of the plan to dump the water into the river until he was briefed after a Lancaster Intelligentser Journal reporter contacted his office for comments.

According to Nuclear Regulatory Commission spokesman Ken Clark, also on that day, May fifth, the contaminated water now is sealed inside the reactor building, with an estimated radioactivity level of about a thousand rems, or one million millirems. This was when the water being talked about was 450,000 gallons rather than the current 325,000 gallons. Maybe it's more today. I haven't seen the paper.

Until March twenty-eighth, I knew just about nothing about nuclear energy, reactors, or radiation. It just wasn't a priority in my life. I've been serving as clerk of the Religious Education Committee of the Philadelphia Yearly Meeting, Religious Society of Friends, which some of you may know as Quakers, for the last two years. And I've been involved in trying to nurture the responsive people to God's spirit in all of life.

From last October until March twenty-eighth, I was immersed in Holocaust literature, trying to conceive of ways



that Quakers could help ourselves and others learn about the awful powers of a bureaucratic nonrepresentative government, Nazi Germany, and then come to realize that each one of us has to take individual responsibility for our lives and for those of our fellow citizens, so that the lessons of the Holocaust won't have to be learned here in the hard way, ever.

I've said this to explain how I was probably getting myself primed for this quite different and unexpected context, wherein I now feel a responsibility to learn about nuclear energy, its costs and benefits, about who makes the decisions and how, and about whether it's good for us, the people, our children, and our environment.

So, back to what I'm learning about rems, those thousand rems that are the estimated level of radioactivity in the water in the containment building which we fear is going to be dumped into the river.

I read yesterday in the April 1979 issue of M.D., World of Medicine that Dr. Thomas Mancuso of the University of Pittsburgh and British scientists Dr. Alice Steward and George Neal examined records of 442 Hanford Military Reservation nuclear workers who died of cancer, and estimated that 26 to 31 of those deaths were induced by an average radiation dose of one point zero rems.

Which brings me to some thoughts about dilution, since that's one of the steps that Metropolitan Edison plans



for the one thousand rem level of radioactivity. First they'll use a chemical cleanup system and then an evaporation process to capture other radioactive particles.

I've heard that there's a common saying in sewage treatment circles, "The solution to pollution is dilution." Lately I've been reading about a reverse process, one that takes place after dilution, concentration by plants and animals of radioactive pollutants. Tiny amounts of cesium, one of the radioactive elements in the proposed dumping, can remain dissolved in water for a very long time, and can then be absorbed by microscopic plants in the river that then become incorporated into those plant tissues in a concentrated form. These tiny plants form the food of slightly larger animals, zooplankton, which are eaten by small fish, which are in turn eaten by larger fish.

Sheldon Novick, in a book called The Careless Atom, talked about this process, which was studied at Parr Pond, where radioactive wastes were discharged from an atomic energy installation. He said that during several months in 1962 the concentration of radioactive cesium in the water was only .033 picocuries per gram. A picocurie is a very small quantity of radioactivity equivalent to a millionth of a millionth of a gram of radium.

But when the flesh of bass caught in the pond was examined, it was found to contain on the average 35 picocuries,

which is a thousandfold increase. And I'm learning that radioactive doses are cumulative so that each fish of that kind that we eat piles up the radioactivity in us.

So we aren't planning to go swimming or fishing in the Susquehanna any more or worse yet, to do those things downstream further, where radioactive pollutants from the Peach Bottom reactors join those from Three Mile Island just in the course of normal operation.

This (holding up an object) is a pestle that my husband found on an island in the Susquehanna River. It was used to pound corn by Indians. And an anthropologist friend of ours at Franklin and Marshall College said that he thinks that this may be somewhere between four and five thousand years old.

I just can't help but wonder, what are the kind of artifacts that people are going to find some time after us in the Susquehanna River? I love to hold this stone. It's really a neat thing. It's heavy.

I'm not going to go down there and look for those things any more.

Mayor Wohlson talked to you a bit this morning about the water dumping, and our Congressman, Robert Walker, spoke some more. I would like to tell you about what is in the water. It shows this water that is proposed to be dumped: predominantly iodine 131, which has an eight-day half life; cesium 137, which

has a 30-year half life; strontium 90, which has a 28-year half life; barium 140, 13 days; strontium 89, 50 days.

Previously NRC officials have said that the gases crypton 85 and xenon 133 also are dissolved in the water. This paragraph really gets me. "Both Chipman and Dornseif, who were talking about what's in the water, agreed that all the normal radioactive by products of nuclear fission should be in the wastewater." Because the reactor had not been operating for a long time, both of them said, many of the long lived isotopes wouldn't be present in large amounts. They said that there is hardly any plutonium and very little iodine 129, and that they are going to be able to remove every isotope except tritium from the water.

And I don't know whether any of you know what tritium is or not. But it is a double heavy hydrogen which has a half life of 12 years and can't be ionized out, as I understand it.

The city is filing suit to block Metropolitan Edison Company from dumping that water, and the Susquehanna Valley Alliance has also embarked on a separate legal action to block the planned discharge of the coolant water into the river. We really do applaud the City of Lancaster's decision to file suit to halt the discharge, but we feel that we have to assure ourselves that we have a part in doing everything that we can to save our environment.

We're frightened. We really are frightened. Very reputable scientists believe that there aren't any safe levels of radiation. Our perception is that we can't know how much health damage is caused by even background radiation. Nobody can know how much radioactivity we who live in this area have already absorbed. Radiation levels haven't been continuously monitored either before or after the accident in the air or in the water.

Our 14-year-old son Chris told me yesterday that he's been having nightmares about nuclear villains that he keeps trying to protect me from. I have intermittent painful knots in my stomach, wakeful nights and days of nervous overeating. Last week my husband was in the middle of freezing asparagus from our garden after having heard that the Udall Committee was visiting Three Mile Island that morning. Dick quickly printed up a sign saying, "TMI, don't dump your poison in my drinking water," drove up to Three Mile Island, and stood in the spring sunshine waiting for the Udall Committee to drive by, hoping to catch their attention.

Our experiences are particular ones, but I believe that they're also representative. I and many people I know have really changed our mode of thinking since March twenty-eighth. In a paraphrase of Albert Einstein's remark, we don't want to drift unthinkingly toward unparalleled disaster, now that we know some things about the splitting of the atom and

Last Saturday Lloyd Hartley, Dean of the Faculty at Lancaster Theological Seminary, and I were two of four people on a panel of citizens from the Harrisburg area at Massachusetts Institute of Technology. There we dialogued with four experts in the nuclear field in a public meeting called "Three Mile Island: Public Risks and Technical Decisions."

As we four Pennsylvanians voiced our fears, shared our perceptions, and asked many questions, I felt dismay and I felt anger, as we were told by the nuclear specialists, "That's a political question. Ask people in the government." But now I really do think that they're right. It is a political decision. The government really is the group that can decide whether we're going to continue to have nuclear energy or not.

And I ask you, members of the President's Commission investigating this accident at Three Mile Island, whether we Americans can devote ourselves seriously to finding alternative ways to boil water to generate electricity, ways that aren't fraught with the kind of danger and terror that we've been hearing about today for people who live in the area around nuclear reactors.

I also have a list of questions which I would like to attach that are concerning the water. And I don't know whether that's anything--

CHAIRMAN KEMENY: If you'll just give it to a member of our staff, we'll put it in the record.

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MS. HESS: I will. That's all I have to say.

CHAIRMAN KEMENY: Thank you. Questions? Commissioner Marrett.

COMMISSIONER MARRETT: Perhaps you can explain to me something about the relationship among several organizations we've heard from. Now it may be that they represent different geographical areas or whatever. But, for example, there is the Environmental Coalition on Nuclear Power, the Three Mile Island Alert, right, and now your own new organization, I understand.

Is there any relationship among these? Was there a perceived gap that led you to form still another organization, or maybe --

MS. HESS: They are geographical groups.

COMMISSIONER MARRETT: Pardon?

MS. HESS: They are geographical groups.

The Environmental Coalition on Nuclear Power, as I understand it, is a coalition of groups, whereas Three Mile Island Alert and the Susquehanna Valley Alliance, which is in Lancaster County, represent particular groups of people who do ongoing kinds of work in their own areas.

COMMISSIONER MARRETT: And is your organization a part of the coalition?

MS. HESS: The first meeting that was held of the Coalition after the Three Mile Island accident I attended the Environmental Coalition meeting to find out about what they

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were doing and how I might get connected. And then I subscribe to their newsletter. I don't know whether I've answered your question.

CHAIRMAN KEMENY: May I ask you one question? We're interested in sources of information people are using. You were very detailed on the content of the wastewater.

MS. HESS: Yes. It came from the Lancaster New Era.

CHAIRMAN KEMENY: That's a newspaper?

MS. HESS: I can't hear you.

CHAIRMAN KEMENY: I'm sorry. It came from the Lancaster--

MS. HESS: New Era.

CHAIRMAN KEMENY: That's a newspaper?

MS. HESS: It's the evening newspaper in Lancaster.

CHAIRMAN KEMENY: Evening newspaper. I see. Thank you very much.

Other questions?

Thank you very much for your testimony.

(Applause)

MS. JORGENSEN: Jim Gormly.

MR. GORMLY: Good evening. My name is Jim Gormly. I live on a small farm halfway between Middletown and Three Mile Island. I relocated here from Berwick, Pennsylvania the summer of 1976.

CHAIRMAN KEMENY: Could you come a little closer to



the mike, please?

MR. GORMLY: Closer to the mike?

CHAIRMAN KEMENY: Yes, a little. The left hand mike, yes.

MR. GORMLY: I relocated here from Berwick, Pennsylvania in the summer of 1976 to attend Penn State Capitol Campus and work.

I'm addressing the Commission on the accident and my experiences studying engineering here and at Hazelton living next to operating nuclear facilities and those being built; also from working in the electric industry.

In addition I speak from the experience of actively working for an end to the use of nuclear fuel for power and weapons for over a year with Three Mile Island Alert, the Environmental Coalition on Nuclear Power, and other groups. There are a remarkable number of talented, beautiful, and industrious people both opposed to and working for the nuclear industry, I've been fortunate enough to meet over the last several years of involvement. They give me hope that we as a species and a nation will realize what joy and wit we're capable of, and that nuclear power and weapons will be forgone forever.

The accident that began March twenty-eighth tangibly displayed the variety of mischief we're capable of, but my optimism is growing that we are learning from those most



instructive of all teachers, experience and bad example. Unfortunately, experience often makes a bloody entrance, and bad examples are worthless for anything but instruction.

I feel we in the Middletown area are acutely experiencing the worldwide death throes of the light water reactor as a commercial source of electric power. It has been over four years that researchers have demonstrated the diseconomies of central station nuclear plants to the investment community. They have demonstrated the competitive advantage of coal-fired stations and how the safety concerns of nuclear power opponents affected escalating plant costs and drove them up.

For years nuclear opponents such as Drs. Judith Johnsrud and Chauncey Kepford of the Environmental Coalition on Nuclear Power have demonstrated the lethal design and construction

COMMISSIONER MCPHERSON: Excuse me. I'm missing almost everything you're saying. Can you slow down a little and

CHAIRMAN KEMENY: And come a little closer.

COMMISSIONER MCPHERSON: It's so hard to hear. The acoustics are terrible here for us.

MR. GORMLY: For years nuclear opponents such as Drs. Judith Johnsrud and Chauncey Kepford of the Environmental Coalition on Nuclear Power have demonstrated the lethal design and construction inadequacies owners and operators would

tolerate with regulatory imprimatur in plants such as Three Mile Island Units One and Two, Susquehanna Steam Electric One and Two, and other nuclear facilities.

Inherent in all sound engineering practice is a factor of safety that acknowledges the humility of the builder and the respect the owner accords the life surrounding the facility. Drs. Johnsrud, Kepford, and others have been demonstrating through their participation in the regulatory process that the reality of nuclear power is predicated on inherently unsound engineering practice. They've done so at great personal expense and sacrifice.

The events I've experienced consequent to the March twenty-eighth accident have left me with the impression that it is terrible to live with the arrogance and recklessness of TMI's builders and owners. I was spared the experience of seeing the radioactive inventory of Unit Two's containment inundating the central Pennsylvania countryside by the narrowest of margins.

It is no comfort to know the projections of WASH-740 and WASH-1400 on potential fatalities, injuries, and damage to property remain only possibilities and not actual reality.

My impression is that trends in utility practice are evidencing deterioration. The SL-1 reactor killed three people. Browns Ferry almost had a Class Nine accident. And now TMI-2 had a Class Nine accident and almost had a catastrophic

radioactive release. I wonder if the trend is evident to Mr. Carter and our national leadership, and whether they need to preside over the equivalent of the Vietnam War compressed into 12 hours before they exhibit the leadership necessary to terminate a costly and morbid practice. On this I am not optimistic. I feel our national leadership is making mistake a standard procedure. Current practice ignores our first priority of ending waste in energy use. By calling for accelerated licensing and siting of nuclear stations the President demonstrates what contempt he has for those living in their kill zone.

By adopting a policy of sinking more wasted resources into fusion and inept fossil fuel use, the national leaders are perpetuating the deterioration of the social fabric instead of reversing it with a sensible and humane energy policy.

I find it instructive that the Department of Energy presides over the nuclear weapons program in addition to nuclear power.

The accident demonstrated to me that nuclear power is a bomb. I responded to the accident exactly as I plan to respond to the impending nuclear war. This is, don't trust the bland representations of authority. Establish an appropriate distance from the kill zone. Work in harmony with experienced nuclear opponents. And make the personal preparations necessary

in anticipation of . . . extensive misery, death, and property destruction.

The last one is the hardest. Pain developed in the roof of my mouth and there was a lot of anxiety.

I can see a remedy for all this. The first element is personal change. There's a great deal of energy I consume unwisely. My car is a real waste, and I plan to use it a lot less, or maybe even eliminate it. We've insulated the house where I live, and get a big laugh every now and then from resistance heat ads in the trade journals.

I plan to continue resistance to nuclear power and weapons, but on a more individual level. If the PUC orders Metropolitan Edison a rate increase for expenses consequent to the accident, I'm not going to pay it. Neither do I plan to pay that portion of my taxes going for war or a bail-out of Metropolitan Edison.

I have a brother in the Army in Germany and another working on the Berwick nuclear power station. Nuclear power weapons and the specter of war now threaten my closest family. The proponents of this madness understand only money. I hope to make the practice of malignancy for profit financially unattractive.

I also plan to live more for today because the future seems so bleak, if there will be one at all. I plan to do what is necessary to appreciate the family and friends

I'm lucky to have now. The joy of work is getting to be a rare thing. More electricity and military spending fuel unemployment. So I plan to appreciate work while I still can. While I still have money for school, I plan to get more from it before it's priced beyond my means.

Nuclear power is a symptom of a political problem. This was a bad accident, and there will be more before our rulers stop it. Unless the political problem is resolved, there will be a continuous series of accidents and probably hostilities, again using nuclear weapons. I don't see the political genesis of these blights as one I can afford to ignore or lose.

Thanks very much for the opportunity to speak to you.

CHAIRMAN KEMENY: Professor Taylor.

COMMISSIONER TAYLOR: We've been having trouble hearing. I want to make sure I heard you correctly. Did you say that TMI-2 had had a Class Nine accident, or had come close to having a Class Nine accident?

MR. GORMLY: As I understand a Class Nine accident, it's when the emergency systems fail to prevent an accident continuing to damage the fuel. To me, there was damage to the fuel as evidenced by the high levels of radioactivity inside the containment building, from the nature of the fission products released to the environment. That's how I understand a Class Nine accident, and to me, Three Mile Island Unit Two

sustained a Class Nine accident.

COMMISSIONER TAYLOR: Thank you.

CHAIRMAN KEMENY: Thank you very much for your comments.

MR. GORMLY: Thank you.

(Applause)

MS. JORGENSON: Is Judy Mairvelli in the audience? Diane Hatter? Then we'll have to go to our next witness, Virginia Southerd.

MS. SOUTHERD: My name is Virginia Southerd, and I am chairman of Citizens for

CHAIRMAN KEMENY: May I ask you to pull the microphone a little closer to you, so we can hear you.

MS. SOUTHERD: Can you hear me now?

CHAIRMAN KEMENY: We want to make sure we hear you.

MS. SOUTHERD: Can you hear me now?

CHAIRMAN KEMENY: Yes, that's much better, thank you.

MS. SOUTHERD: My name is Virginia Southerd and I am chairman of Citizens for a Safe Environment, the citizens' group that organized in 1970 and intervened in the operating license hearings for Units One and Two.

I would urge this Commission to take testimony under oath from Dr. Chauncey Kepford, legal representative of the intervenors, who prepared and conducted our intervention.

In my five minutes this evening, I would like to

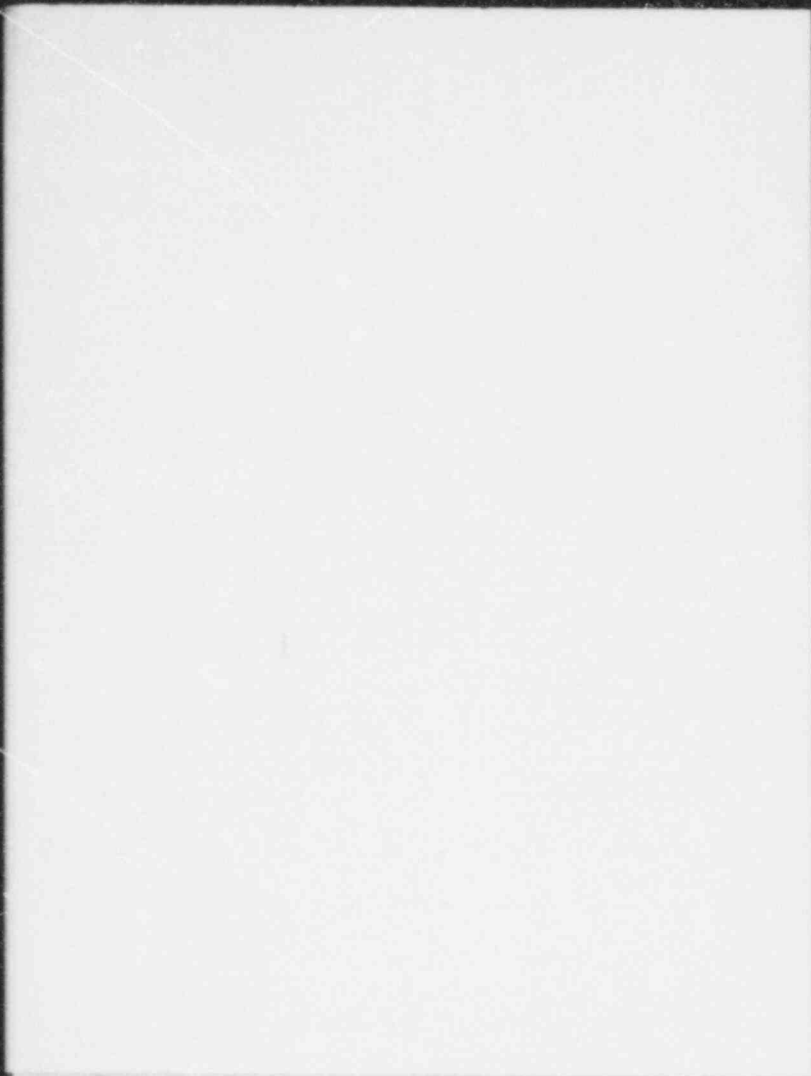
speak to you about the frustrations of trying to bring before the Nuclear Regulatory Commission proceedings serious issues related to the health and safety of the public before the plants were licensed, and some personal feelings about the consequences of the accident.

On the issue of the highly improbable event, which translated means a catastrophic accident, we were not permitted to discuss the consequences of such an accident because the probability was considered to be so low. We know now that this accident can happen and possibly will happen again, if either of these plants is ever allowed to operate again.

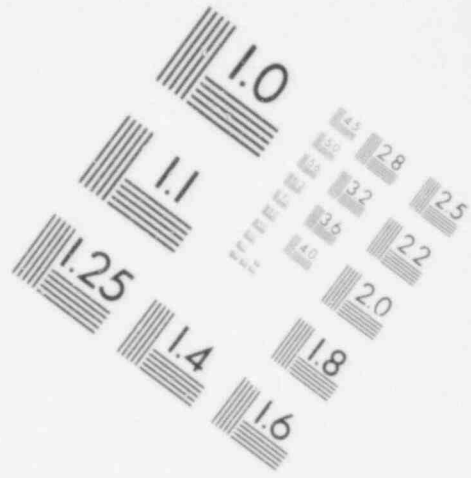
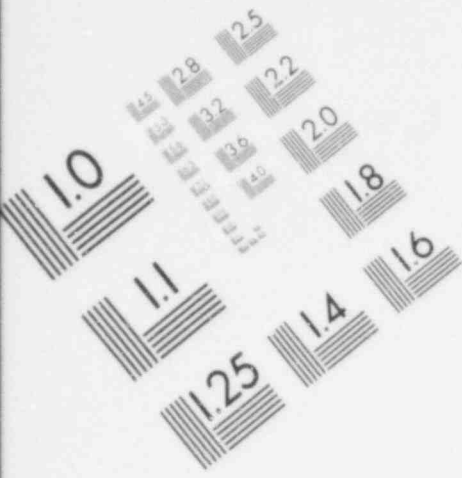
We were assured in sworn testimony that the emergency evacuation plan was fully adequate and that the population that was in the four point eight mile radius could be evacuated with no problems, regardless of the time of day or night and regardless of the weather conditions, even in the worst of winter ice and snow.

Subsequent to the hearings at a public meeting in Middletown in February of 1978, the Director of the Bureau of Radiological Protection told us that it would be impossible to evacuate the area in weather conditions such as were prevailing that night. That night a blizzard was blowing; there was drifting snow, and blowing it over very icy roads. At the meeting--he was not the speaker at the meeting, but he was in the audience--we asked him what would happen if there would be

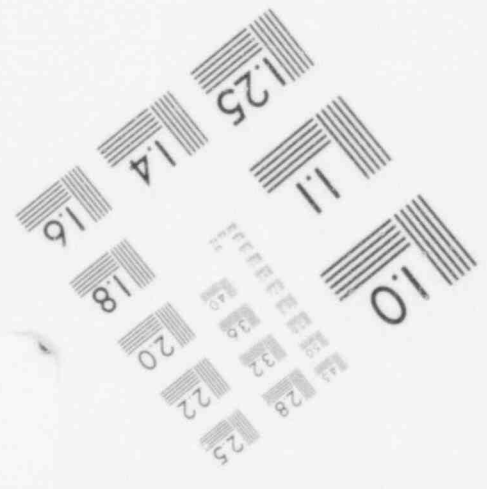
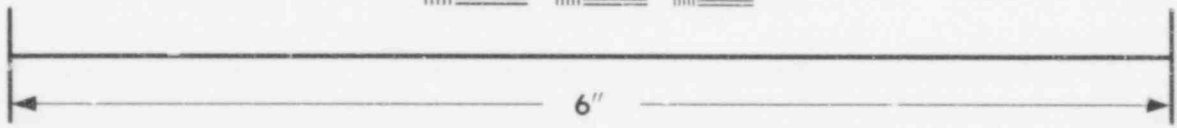
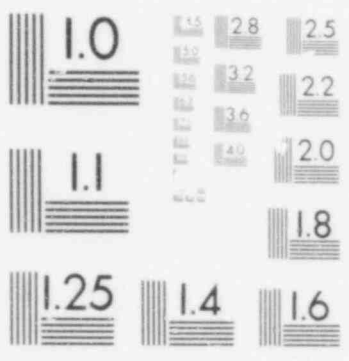








**IMAGE EVALUATION  
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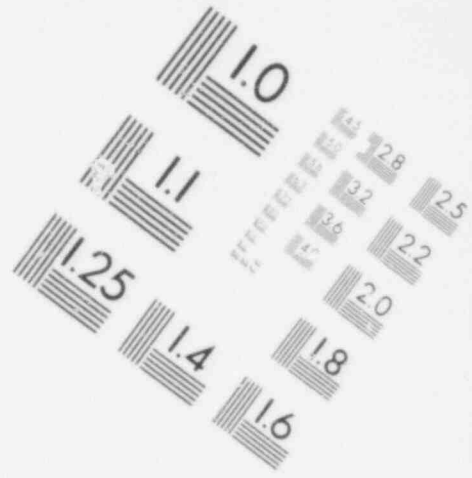
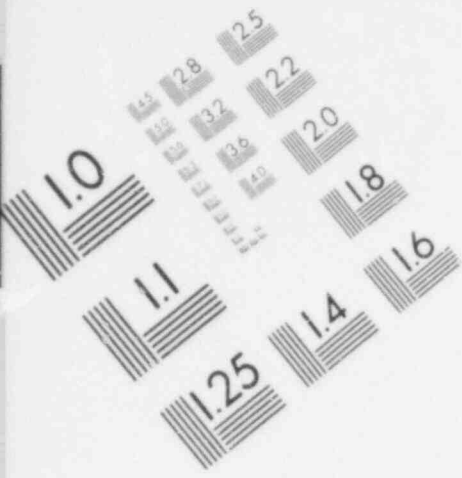
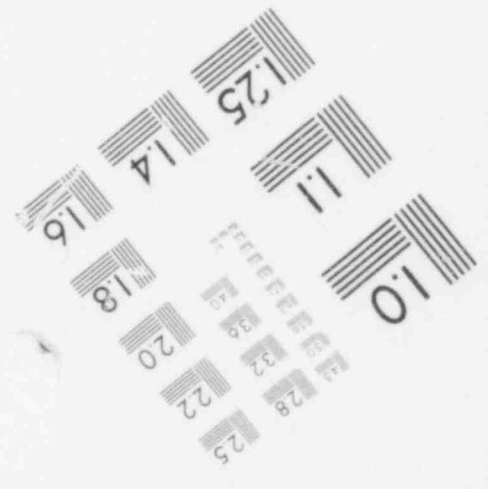
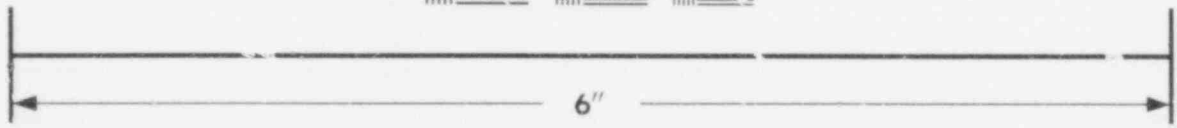
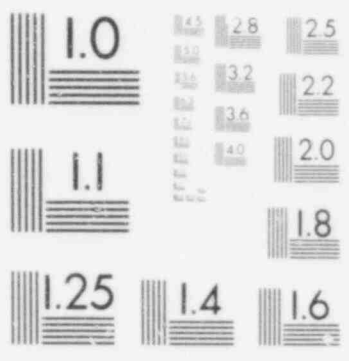


IMAGE EVALUATION  
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an accident that night at Three Mile Island. And he told us that it would be impossible to evacuate under those conditions.

We were not permitted to raise the issue of evacuating people beyond the four point eight mile radius. We know now that if the containment had breached during the very near catastrophic accident, lethal doses of radiation could have gone beyond the twenty-mile zone designed for evacuation. Governor Thornburgh was advised by the director of the state Civil Defense to evacuate people, but instead it was decided to risk public exposure to continued radioactive releases and accident circumstances on the verge of catastrophe.

Aside from the judgment of public officials and their motives, what is also questionable is whether the decision to evacuate had to be based at least partially on the absence of a workable plan to move citizens outside a five-, 10-, 20-, or 50-mile radius of the plant.

I believe that subjecting the population to continuing doses of radiation from this plant, which the Bureau of Radiological Protection has advised us will continue for months, is a cruel and inhumane act that should not be permitted in a free society. All official bodies who set radiation standards tell us that there is no safe dose of radiation. But the Regulatory Commission has persisted in misleading the public by saying the releases will do no damage. They always follow up the statement where they're announcing releases with the statement

that the releases will do no damage. And I think it's very misleading, and I think it should be stopped.

Several highly respected independent scientists have stated that the health effects will be far more damaging than Secretary of Health Califano has announced. As President Kennedy said about radioactivity in rain from the bomb testing, "This is not a natural health hazard."

Finally I would like to say that the terror thousands of people experienced during that period when many of us left our homes should never happen in America.

We ask you to let President Carter and our other elected officials know that we do not want to live with this kind of sword hanging over our heads. And the only way it can be stopped is to shut down nuclear power reactors.

The people of the Middletown-Harrisburg area should not have to pay the psychological, environmental, and health costs to produce electricity we do not even use here.

Thank you very much, and I would like if I can now to make just a few personal remarks.

Because of a personal health problem, I left my home and my job the day of the accident. I cannot live around radiation. So for that reason I have had to give up a job that I held for 14 years, that I enjoyed, and I am relocating. I don't even have a job yet. But I'm closing up my apartment and I have to leave here, because these releases will be going

on indefinitely. I just wonder how many other people who have had health problems have been affected this way. I know of one woman who lives in Harrisburg who had just finished having a series of radiation treatments for cancer, who left her home the day of the accident because she could not be around any more radiation. So it's a very terrible position to put people in. Health problems aren't as clearcut as maybe fifty cancers, or one to two cancers, as Secretary Califano says. Radiation affects people differently, depending on their age and their health and their genetic background, and I think it's a health hazard that people should not have to live with.

Thank you very much.

(Applause)

CHAIRMAN KEMENY: Thank you very much for your statement. Do we have further witnesses here?

MS. JORGENSON: Is Larry Hochendoner in the audience? Then we'll take our last witness, Jane Grey.

MS. GREY: Can you hear me?

CHAIRMAN KEMENY: Yes.

MS. GREY: I knew that I would be very nervous, so I prepared a statement.

My name is Jane Grey, and I am a concerned citizen of central Pennsylvania. I live within 20 miles of the Three Mile Island plant in Cornwall. I work within 10 miles of the plant,

at the Hershey Medical Center. And I have to buy my electricity from Metropolitan Edison.

I am here because in the course of the accident, I have been thoroughly and genuinely frightened, possibly irradiated, and now there's a suggestion that I will pay as well.

It is the issue of responsibility that I would like to address primarily, since the Commission has no doubt heard much testimony on nuclear safety or the lack thereof.

There has been the suggestion that the customers of Met Ed and the General Public Utilities Corporation, or the taxpayers of Pennsylvania and the rest of the United States, bear the cost of this accident, as if it were an act of God. I could agree with this if God built nuclear power plants and then failed to operate them safely.

It is not fair that we who have already suffered our way through this incident through no fault of our own should have to bear the further burden. When circumstances are favorable and the local electric company is making money, there is no plan to distribute the profits to the customers or to the citizenry. The money goes to the Metropolitan Edison stockholders as their due, since they own the company.

But these days circumstances are not so favorable. The company is looking at a pretty large liability. I say it is the stockholders who should be responsible for the actions of their company. Hindsight is of course 20/20, but perhaps

if the stockholders, now being portrayed to us as poor senior citizens, had been more concerned with the way the utility was managed than with the size of the dividends, we wouldn't have this meeting.

I can think of no way that the management of the utility and the owners of the utility can be excused. Historically utilities have simply passed their costs right through to the consumer. Even this might be considered fair if this were a free market situation. I could then choose as a consumer not to buy my electricity from Metropolitan Edison. But these companies have been granted permission to operate as monopolies. I think that there was some provision in this permission, however, that mentioned the public good.

I would here like to remind the utility and the State Public Utility Commission and the Federal government's Nuclear Regulatory Commission about the public's good.

My proposal, then, is to hold the management and the owners of Three Mile Island responsible and liable for the incident. On the state level, I would hope that costs not be allowed to be passed on to those who are in no way responsible. On the Federal level, I would not want to see any of the taxpayers' money extended to this corporation. Originally I had in my statement, "except as an interest-bearing loan," but this company has no right to operate a power plant like this.

I believe the Federal government should be more

involved in protecting the public by being much more involved with the safety assurances of these facilities. And I would call for the repeal of legislation which limits liability in the event of a nuclear accident.

Without constraints the operators of the nuclear power plants in this country have shown us that the health and the well being of the surrounding populace has a very low priority in their view. And we need someone to protect us.

Thank you.

CHAIRMAN KEMENY: Professor Marrett.

COMMISSIONER MARRETT: I didn't quite hear your place of employment. Where is that?

MS. GREY: At the Hershey Medical Center.

COMMISSIONER MARRETT: That's what I thought I heard. Did you leave the area?

MS. GREY: No.

COMMISSIONER MARRETT: You didn't. What about the staffing at the Hershey Medical Center during the period? Were there quite a few other staff people who did leave?

MS. GREY: It's very difficult for me to tell because I work in the Blood Bank, which is essential, an isolated area. We had adequate staffing.

CHAIRMAN KEMENY: Any questions?

I'm just curious. May I ask what your occupation is?

MS. GREY: I am a medical technologist.



CHAIRMAN KEMENY: Other questions?

Thank you very much.

I'm informed that one more witness has just shown up, and since he was due about this time, we should certainly let him testify. But we'll have to make it the last witness, then.

MS. JORGENSON: Larry Hochendoner.

(Applause)

MS. JORGENSON: Larry Hochendoner.

MR. HOCHENDONER: Good evening, Chairman and members of the Commission. I'll get right to testimony. I'm sure you're very tired.

I live in the city of Harrisburg. I'm a resident there.

I thank the Commission for the opportunity to address you. Until your action on Thursday concerning subpoena power, I did not feel any governmental investigations had any credibility. Because I'm sick and tired of equivocating politicians standing in front of cooling towers, I found your no-nonsense approach damn refreshing. You have restored my trust in the integrity of your efforts. I have no doubt your findings will hold great weight in a debate over nuclear power.

There are so many issues, technical, economic, and human, in the tragedy of TMI, that it is difficult to assess the full implications of what happened here. I do not speak

to you as an expert but merely as one person, a husband and a father who experienced this disaster; a person who faced, like many others, agonizing decisions like voluntary evacuation.

The overwhelming issue in this matter is the fundamental right we all share, the right to control one's own life; the right to live without fear for our physical or mental well being. In my opinion this right was unquestionably compromised and threatened by apparent human negligence, technical incompetence, and a concerted effort to keep the lid on things.

We have a right to know the facts, the truth about what happened at TMI, and we had a right to know what was occurring at the time of the accident.

For myself and I'm sure for many others in this community, an overwhelming sensation of helplessness and victimization existed on every level during our crisis. Confusion reigned. Facts were reported as rumors, rumors as facts. Little if any credibility existed, and clearcut authority for what was happening did not exist for some time.

What occurred here in our community should never happen again anywhere. Certainly establishing a strong accountability throughout the entire nuclear regulatory process is essential. I would therefore like to suggest the following items for your consideration.

(1) Tightened monitoring operations. Mandating a continuous check of a plant's status. In Pennsylvania, in

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the Department of Environmental Resources, the Bureau of Radiological Studies does not have the money or the manpower to do this. Someone must.

(2) Define what an emergency situation is, and require the public must be notified of such an emergency within the shortest possible time. As I understand existing procedures, a requirement like this does not exist.

(3) Create an efficient emergency communications system in order for people to be alerted as soon as possible with the most accurate information possible.

(4) Determine who is liable for damages in the event of another TMI. I doubt the utility company will ever provide the most competent management and safety technology unless that utility knows that it is responsible. Without question I suggest that a utility company should ultimately be accountable for plant safety.

Some suggest that taxpayers subsidize Met Ed for its losses at TMI. I can't think of anything more outrageous than using tax dollars to underwrite the losses of Met Ed. Their incompetence and misjudgment has already cost us enough. Furnishing them tax dollars badly needed for other programs simply doesn't make sense.

(5) and finally, require as part of the licensing procedure in advance of plant financing, local referendum. People directly affected by radiation contamination should be

the ones to decide if the plant is built in their community. We should make this decision making process as accessible to as many people as possible. The most accessible and least intimidating is the voting booth.

In conclusion and in addition to these five suggestions, I would like to leave you with just one thought. As one person who together with my family and friends experienced the catastrophe of TMI, I would like to respectfully caution the members of this Commission to not forget exactly what happened here. I do not mean to suggest you would do so intentionally. But distance and the passage of time may revise what did in fact occur. I'm certain some will downplay and others exaggerate what has happened here in Pennsylvania. But please do not adopt a revisionist view, either pro or con nuclear power. All of us must remember that TMI did happen. That it occurred here in Middletown is not the issue. That it occurred at all is.

We must come to grips with the fact that nuclear scientists obviously do not know all they have led us to believe, that nuclear power is not failsafe, and that every community that has nuclear power plants or plans for one has as immediate a personal stake in this issue as we here in central Pennsylvania.

Thank you.

(Applause)

CHAIRMAN KEMENY: Questions from Commissioners.

It's not a matter of the quality of your statement. I think we're just worn out.

MR. HOCHENDONER: I'm sure. Thank you very much for your time.

CHAIRMAN KEMENY: I very much appreciate your testimony. May I ask, do any Commissioners wish to make any final remarks before I adjourn the meeting?

If not, I have two very brief remarks, one that the next meeting of the Commission will be in Washington on May thirty, thirty-one, and June one, three full days of meetings. We have every expectation that this Commission will begin to take testimony under oath on our way to discovering the truth.

I would like to end on a personal remark. I would like to say to the citizens of this region that as long as I live, I'm not going to forget this particular day.

The second meeting of this Commission is hereby adjourned.

(Whereupon at 9:00 P.M. the hearing was adjourned as described above.)

LIST OF EXHIBITS  
PRESENTED TO  
THE PRESIDENT'S COMMISSION ON THE ACCIDENT AT THREE MILE ISLAND  
SATURDAY, MAY 19, 1979

1. Statement of Dr. Theodore Gross, Provost, The Pennsylvania State University/Capitol Campus, entitled "The University and Three Mile Island" (read verbatim into the record).
2. Statement of Kenneth E. Myers, Mayor of Goldsboro Borough, dated May 19, 1979 to the Commission
3. Remarks to the Commission by Albert Wohlsen, Jr., Mayor of Lancaster
4. Statement of Judith H. Johnsrud, Co-Director, Environmental Coalition on Nuclear Power, with attachments:
  - A - News from ECNP (Environmental Coalition on Nuclear Power) entitled "TMI Intervenors Seek NRC Hearings on Water Dumping and Radiation Monitoring"
  - B - Copy of AEC document WASH-740 dated March 1957 entitled "Theoretical Possibilities and Consequences of Major Accidents in Large Nuclear Power Plants"
  - C - Special TMI Edition mailed 4/30/79 of "News from Environmental Coalition on Nuclear Power"
  - D - Copy of Docket No. 50-320, Supplemental Petition to the Director of Nuclear Reactor Regulation for Emergency Action, April 27, 1979
  - E - Excerpts from the 1964-65 Revision of WASH-740, The Brookhaven Report, "Theoretical Possibilities and Consequences of Major Accidents in Large Nuclear Power Plants"
  - F - Reproduction of Atomic Energy Legislation Through 94th Congress, 2d Session, Joint Committee on Atomic Energy, Congress of the United States, March 1977 (Containing portions of Atomic Energy Act of 1954)
5. Three documents of the Pennsylvania Capital Area "Forward" consisting of (a) A position statement to President's Commission dated May 19, 1979, (b) Statement to the

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• LIST OF EXHIBITS, May 19, 1979 (Continued)

- Governor and Lieutenant Governor (of Pennsylvania) dated May 2, 1979, and (c) Statement to President Carter dated May 19, 1979.
6. Letter dated May 16, 1979 to Commission from Kenneth L. Miller, Director, Division of Health Physics and Assistant Professor of Radiology, Hershey Medical Center and attached copy of Letter to Hershey Friends and Neighbors dated April 5, 1979 which was printed in the Hummeltown News, a local newspaper.
  7. Statement of William F. Goodling, United States Congressman, 19th Congressional District of Pennsylvania to the President's Commission
  8. Statement by Robert S. Walker, United States Congressman, 16th Congressional District of Pennsylvania to the President's Commission
  9. Statement of Kay Pickering, representing Three Mile Island Alert, dated May 19, 1979, to the President's Commission
  10. Letter dated May 19, 1979 from Charles A. Cole, Ph.D., PE, to the President's Commission
  11. Statement of Dr. John F. Barnoski (3 pages), May 19, 1979
  12. Statement to the Commission by William H. Shoff, M.D., dated May 19, 1979, with copy of article by Karl E. Morgan entitled "Cancer and low level ionizing radiation" from The Bulletin, September 1978
  13. Statement of Steven C. Sholly, May 19, 1979, to President's Commission
  14. Statement by Milton Lowenthal, May 19, 1979, representing Harrisburg Area Chapter of United Nations Association of the United States of America and the Harrisburg Branch, Women's International League for Peace and Freedom
  15. Statement of Bruce Smith, Chairman, Newberry Township Board of Supervisors (3 pages)
  16. Statement of Georgia Lookingbill, Hummelstown, Pa., (2 pages)

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LIST OF EXHIBITS, May 19, 1979 (Continued)

- 17. Statement of Marjorie L. Tennyson, Middletown, PA resident, dated May 19, 1979 (2 pages)
- 18. Middletown Environmental Advisory Council one-page statement of concerns, dated May 19, 1979, presented by John Hulsberg



EXHIBITS

Environmental Coalition on Nuclear Power newsletter. April 1979 issue. Submitted by John Simon.

Questions concerning the dumping of radioactive water into the Susquehanna River. Submitted by Beverly Hess, Susquehanna Valley Alliance.

Statement to the President's Commission on the Accident at Three Mile Island, Saturday, May 19, 1979. Submitted by Jane Grey.