

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

DEPOSITION of U. S. NUCLEAR REGULATORY  
COMMISSION, REGION No. 1, by BOYCE H. GRIER, held  
at the offices of U. S. Nuclear Regulatory Commission,  
Region 1, 631 Park Avenue, King of Prussia,  
Pennsylvania, on the 17th day of August, 1979,  
commencing at 9:15 a.m., before Robert Zerkin,  
Notary Public of the State of New York.

BENJAMIN REPORTING SERVICE  
CERTIFIED SHORTHAND REPORTERS  
FIVE BEEKMAN STREET  
NEW YORK, NEW YORK 10038

(212) 374-1133

7909060506

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

A P P E A R A N C E S :

NUCLEAR REGULATORY COMMISSION:

MARIAN E. MOE, ESQ.

Attorney, Office of General Counsel  
United States Nuclear Regulatory Commission  
1717 H Street, N. W.  
Washington, D. C. 20055

PRESIDENT'S COMMISSION ON THREE MILE ISLAND:

ERIC PEARSON, ESQ.

Deputy Chief Counsel

ooo

BOYCE H. GRIER, having  
been first duly sworn by Eric Pearson, Esq.,  
took the stand and testified as follows:

DIRECT EXAMINATION

BY MR. PEARSON:

Q Would you state your name, please?

A Boyce H. Grier.

Q What is your position with the Nuclear  
Regulatory Commission?

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

A Director, Region I.

Q Could you explain very quickly what your responsibilities are in that position.

A To direct the program of the Office of Inspection and Enforcement in Region I. Region I is the geographical area of 11 northeastern States and the District of Columbia.

Q Initially, I would like to ask you a number of questions with respect to Region I, and how this office functions. To begin the discussion, I would ask you to explain what your role is routinely as it relates to the Nuclear Regulatory Commission headquarters in Washington.

A I report to the director of the Office of Inspection and Enforcement, and it is my responsibility to see that the inspection program, as defined, is implemented within Region I.

Q Do you receive your policy directives from the Office of Inspection and Enforcement in Washington?

A Yes.

Q How large is Region I?

A In numbers of people?

A Numbers of States.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

A 11 northeastern States plus the District of Columbia.

Q How many nuclear facilities are under your charge in Region I?

A There are currently about 20 operating reactors; there are others under construction, the numbers of which I do not have at hand immediately.

Q An estimate will be all right.

A About 10, I guess, or so under construction. There are about eight fuel facilities and some 3,000 byproduct materials licensees.

Q How many professional employees work out of this office?

A About 110 here at present.

Q Can you give me very quickly the number of persons of that 110 who are involved in direct inspection and enforcement activities in the field.

A Well, all of them are if you include the supervisors; 90 of these are inspectors who actually go into the field for inspection.

Q Is the Nuclear Regulatory Commission, Region 1, divided into different divisions under your general supervision?

A Branches. Four program branches plus a fifth



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

administrative branch. The four program branches are reactor Operations and Nuclear Support, Reactor construction and Engineering Support, Fuel Facilities and Materials Safety, and Safeguards.

Q Would one person from each of those four program branches that you mentioned have within his or her responsibility a certain number of nuclear facilities?

A If we limit it to nuclear facilities, reactors either in operation or under construction, there is a project inspector assigned who is the principal inspector for that facility for operating reactors; the project inspectors in the Reactor Operations Branch for facilities under construction are the project inspectors in the Reactor Construction Branch.

Now, there are specialists in all branches who are involved in the inspection program at reactor facilities, but the lead responsibility is either with reactor operations or reactor construction.

Q With respect to reactors in existence and operating, do you have a policy which indicates a minimal number of inspections per year that must be conducted?

A The inspection program is defined in the I&E

1  
2 manual. Rather than prescribing frequency of inspec-  
3 tions overall, it prescribes frequency of certain  
4 inspection procedures. The minimum frequency is  
5 quarterly, so it would require -- I am limiting my  
6 discussion to operating facilities -- it would require  
7 inspections at least quarterly in order to meet the  
8 requirements of the program.

9           Actually, experience shows that in order to  
10 complete the program, inspections have to be done much  
11 more frequently than quarterly, and probably on a  
12 monthly basis.

13           Now, in the past we talked about inspection  
14 frequency overall. In recent years we have defined a  
15 program and frequency of particular inspection pro-  
16 cedures without saying how many inspections must be  
17 performed per year so it is flexibility of inspections  
18 in order to complete the program.

19           Q       When you speak of inspection procedures,  
20 do you mean the steps that an inspector must take while  
21 on-site at a facility?

22           A       No, really areas that must be inspected. The  
23 program is defined on a functional basis, and the  
24 particular program applicable to operating facilities  
25 is defined in manual Chapter 28.15, that prescribes

1  
2 the program on an annual basis and identifies those  
3 inspection procedures in the manual which must be  
4 performed with prescribed frequency.

5 Now, there are areas in the operations area such  
6 as looking at surveillance programs, calibration  
7 programs; there are also procedures in the radiation  
8 protection area which would define certain procedures  
9 to be performed by radiation support personnel from  
10 here, or environmental support personnel; other  
11 procedures in physical security area that are  
12 performed by safeguards inspectors, so the program is  
13 defined on a functional basis for the various areas.

14 Q This must be a difficult question to  
15 answer:

16 If one of your reactor inspectors would  
17 go on-site just for a routine inspection, how would he  
18 go about conducting that inspection; generally, what  
19 would he look for; where would he go, and things of  
20 that sort?

21 A The routine would be something like this:

22 There would be what you might call an entrance  
23 conference; that is, the inspector would meet with  
24 licensee management on-site to indicate his plans for  
25 inspection and the areas which he would be inspecting.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

If it is an operations inspector, the project inspector, I would think, that he would spend his initial period in looking at some of the operating records, visit the control room, observe activities going on. If his particular area of inspection might be a surveillance program to determine the status of the compliance of the licensee with the technical specification requirements for surveillance, he would go to whatever location on-site where surveillance records are kept, meet with the licensee's individuals responsible for the surveillance program; he would review the records; he would look at surveillance procedures; he would determine whether or not any surveillance tests were in progress at that time; and he would witness whatever tests might be performed. Generally, our approach is to look at procedures for performing an activity, to observe licensee activities in carrying out that procedure, and then to look at results that are achieved by the procedure.

Q Do inspectors normally schedule their arrival with the utility, or do they simply arrive at the site and indicate simply, I am here?

A Inspections are unannounced to the extent that they can be. Now, there are sometimes inspections

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

that require certain individuals to be available for discussion or to be scheduled so that we can observe activities that are going on which are conducted by the licensees, so we have to know when that is being performed, but typically the inspections are unannounced.

Q Would your inspectors when they come on-site routinely do physical inspections of the actual equipment or machinery?

A Well, to some extent except, understand, that the only inspection we can do in that regard really is visual inspection, so there might be inspection visually to see that the equipment is in place, if it should be operating, to see that it is operating to the extent that you can tell by looking at whatever indications of operations are there, but if you mean by your question, do you physically inspect in terms of measurements of equipment or whatever physical measurements you might take, we do not do that.

There are some areas that we can make physical measurements or independent measurements, particularly in the radiological environmental area where the inspectors who perform inspections in that area do have instruments to measure levels of radiation. We do independently take samples for analysis where we

2 have an analytical capability with the mobile labora-  
3 tory or some laboratory facilities here in the  
4 office, or we have laboratory support under contract  
5 with Idaho, so in those areas we can independently  
6 make physical measurements, but as far as equipment  
7 our ability to physically inspect is limited.

8 Q Do your inspectors or some group of  
9 inspectors routinely check for emergency response  
10 capability at sites?

11 A Yes, we do; that is a responsibility of our  
12 Environmental Support Section which is in the Fuel  
13 Facilities and Material Safety Branch, emergency  
14 planning inspection is their responsibility.

15 Q How would one of your inspectors seeking  
16 to determine whether a utility was maintaining his  
17 emergency response capability go about doing that?

18 A First, the inspector would prepare by becoming  
19 familiar with the licensee's emergency plan, and then  
20 he would look at procedures, see that the licensee had  
21 procedures available to implement the plan; he would  
22 determine what emergency equipment is required to be  
23 available and see if that equipment is as required;  
24 he would also at times observe any emergency drills  
25 that might be scheduled by the licensee. Typically,



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

we would do that on an annual basis although I don't believe we presently require that to be done annually.

Q Is it your policy that, as possible, inspectors would attend those drills?

A That is correct.

Q Would your inspectors concerned with the licensee's emergency response capability on-site check to see whether equipment was operational such as, for example, respirators?

A I can't answer that. We would look at the availability of respirators and should determine whether or not the respirators meet whatever requirements exist; that is, that they are approved respirators.

As far as actually determining the operational ability of respirators, that is not routinely determined, I don't believe.

Q Would the inspectors routinely check to assure, for example, that telephone numbers of off-site persons to be notified remain current?

A That is part of the inspector's inspection procedure, yes.

Q Would the inspector also check to assure that arrangements made with hospitals to treat persons who might be exposed to excessive amounts of radiation

1  
2 remained in effect, and that the hospitals in fact  
3 had the capacity to do what they agreed to do?

4 A Yes, that is generally part of it. Let me point  
5 out that is part of what we call the operational  
6 preparedness part of our inspection program, before a  
7 facility receives an operating license, one of the  
8 things we do is specifically to review the whole  
9 emergency arrangements at that time and make a deter-  
10 mination that they have been made. At that time, the  
11 things you inquire about as far as hospital avail-  
12 ability and agreements with hospitals is a part of  
13 the program. Then periodically thereafter with respect  
14 to the annual inspection, the inspector or someone in  
15 this area would look at certain parts of the emergency  
16 plan. It may not be that we would look totally at the  
17 plan annually, but some part of it would be inspected;  
18 whether we look at hospitals every year I am not sure,  
19 but it is a general or part of the program at some  
20 frequency.

21 Q Is it also part of the program that your  
22 inspectors would check to assure that utility  
23 employees were receiving proper training with respect  
24 to emergency preparedness?

25 A Yes, that is part of the program.



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

Q Would they check access doors, and things of that sort to assure that if they were to be opened, they were in fact open?

A I would expect that to be part of the program, yes.

Q You have indicated, I think, that emergency preparedness may be checked annually, or so?

A Yes.

Q Is that of a lesser frequency than other inspection frequencies for other interests?

A Well, I indicated that some of the requirements are on a quarterly basis. You know, the operations aspects in terms of plant operations is a quarterly frequency so, yes, there are other things that are more frequent than annual.

Q When a construction permit application arrives, what role does this office play with respect to reviewing that application compared to the role that NRC Washington would supply in reviewing that same application?

A Our only involvement when an application is received is to examine the licensee's quality assurance program. We do participate in what is called the acceptance review which NRR Licensing conducts when

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

an application is received. We will conduct inspections of the licensee's quality assurance program; implementation, particularly in the area of design and procurement, form a basis as to whether or not the program, as described in the application, is in place, so as far as review of the application for construction permit, that is really the extent of our involvement.

Q I am not clear on precisely what is involved with the quality assurance program. Can you give me some more information on that.

A As a part of an application submitted for license, the applicant must describe a quality assurance program which meets criteria established by NRR. These criteria are contained in an appendix of 10CFR Part 50. With the application submitted, there is a Safety Analysis Report, SAR; in connection with the construction permit it is called a Preliminary Safety Analysis Report or PSAR. Chapter 17 of the PSAR describes the licensee's quality assurance program.

Similarly for operating license in the Final Safety Analysis Report or FSAR there is also a Chapter 17 which describes the quality assurance program. For the PSAR it is the quality assurance

1  
2 program for construction, and for the FSAR it is the  
3 quality assurance program for operation.

4 The program description then is evaluated by  
5 Licensing to determine whether or not the program  
6 described meets the criteria established by NRC. It  
7 is then our responsibility in Inspection and Enforcement  
8 to conduct the inspections necessary to assure that  
9 the program, as described and approved by Licensing,  
10 is actually being implemented. Now, this means that  
11 the licensee has in place organization and procedures  
12 to carry out the quality assurance program, as  
13 described.

14 Q What role, if any, does this Region I play  
15 when the question of the proposed siting of a nuclear  
16 reactor comes up?

17 A We play no role in that regard. We may receive  
18 questions from NRR if we have some familiarity with  
19 the site, but unless requested we have no responsi-  
20 bility in that regard.

21 Q With respect to a site's emergency response  
22 plan, which I understand would be submitted in some  
23 sketchy form at the FSAR stage --

24 A Yes.

25 Q -- and in some more detailed form later on

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

at the operating license stage, what role would this region play in reviewing and in determining the adequacy of that emergency response plan for a facility within your region?

A At the construction permit stage, we would play no role. With the more detailed emergency plan submitted with the application for an operating license we would generally review that and provide any comments that we might have to Licensing, but again it would largely be on a request basis.

Q Would the final word or decision as to the adequacy of a utility's emergency plan reside in NRC, Washington?

A That is correct, it is Licensing's responsibility. However, I think we share a responsibility if we observe during the course of our inspections that there are inadequacies in the plan, we are obligated to bring these to the attention of Licensing and request resolution.

(Continued on following page.)

2.1

RZ:lc

1  
2 Q Do you play any role with respect to the  
3 review or comments on the adequacy of plans other than  
4 the plans of the utility; for example, plans of com-  
5 munities proximate to facilities, or state plans and  
6 things of that sort?

7 A Not directly. Now, in the past, we have provided  
8 some people who have participated in the review of  
9 state plans, but that has been done as a support to the  
10 Office of State Programs in the NRC, and not really  
11 as an I&E function, so from the standpoint of this  
12 office, yes, but from the standpoint of Inspection and  
13 Enforcement, no.

14 Q Are there any persons in the region who  
15 are assigned out of the Office of State Programs?

16 A There are now. We have a state liaison officer  
17 who is assigned here, who is on my staff, but takes  
18 his direction from the Office of State Programs, now  
19 that has been in place for something over a year as  
20 a trial program. Prior to his assignment here, we  
21 provided one of our inspectors or one of our section  
22 chiefs, actually, who served as a member of the Federal  
23 Regional Advisory Committees, who were involved in  
24 reviewing of state emergency plans, so there has been  
25 involved, but he is really part of I&E.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

Q Who is that person?

A Phil Stohr. He is a section chief in the Fuel Facilities and Material Safety Branch. The state liaison officer who is assigned to the office is Tom Elsasser.

Q I understand that Region I itself has an emergency response plan; is that accurate?

A Yes.

Q Could you, in general terms, tell me what that plan provides for.

A It provides for notification of appropriate personnel whenever we receive information of an incident, activation of our Incident Response Center here in the office if the significance of the incident requires, and the dispatch of inspectors, as part of an emergency response team to the site of the incident. It provides for establishing communications with headquarters and their incident response team; that is, telephone communications and establishing communications with the incident response team when that team arrives on-site.

Q Could you characterize for us your views as to the priority which emergency response planning has received in the region historically.



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

2.3

A I think this region has given considerable priority to the area. Understand that I have only been here as regional director for about two years now, but prior to my coming, considerable attention was given to emergency planning within the region. The emergency response plan that you referred to for Region I was largely developed when I got here.

Q At your direction?

A No. It was done before I arrived, and I came in July of 1977.

Since I have been here, the plan has been revised considerably to conform to some of the direction from headquarters. Also, we had made some effort to provide an emergency response center or incident response center by having telephones installed, dedicated lines that were in our conference room, to act as our response center.

Q Prior to coming to this region, did you have experience with other regions in NRC?

A Not immediately. I was on the headquarters staff for four years; prior to that, I had been in Region II.

Q Do all regions have an emergency response center or communications point that would activate if an emergency arose?

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

2.4

A I don't believe all of them do, or did not. They may have now. My impression is that this region was more advanced in that regard than other regions. I should point out that the director who was here went to Atlanta, and I know he now has a fully-equipped Incident Response Center in Region II.

Q Who is that?

A Mr. O'Reilly, Jim O'Reilly.

Q Do the other regions also have emergency response plans that are set out ahead of time in writing?

A I believe they do. I am not familiar with them specifically, but I think all regions have some -- I am sure all regions have some emergency response plan.

Q Is there a mandatory directive from headquarters requiring the preparation and maintenance of a plan of this sort?

A Yes, I think there is. I am not -- yes, there is a manual chapter which I am trying to recall in the I&E Manual which lays down criteria for incident response.

Q Yesterday we learned that this region has a duty officer.

A Yes.

Q What is the function of a duty officer?



2.5

1  
2 A Principally, it is a point of contact during  
3 off-hours to ensure that there is available on a 24-  
4 hour basis some individual from the regional office  
5 that can receive notifications. He has instruction  
6 procedures with respect to contacting other individuals  
7 in the office who might be needed in the event of a  
8 response to an incident.

9 Q Is it the responsibility of a designated  
10 duty officer to remain at a certain location where he  
11 can be contacted during his specified time?

12 A Prior to the Three Mile Island incident, we had  
13 a telephone answering service who took care of calls  
14 that came in during off-duty hours, and they had  
15 procedures for notifying the duty officer. He was  
16 either to remain at his home telephone, keep the  
17 answering service informed of where he might be  
18 reached, or he carries a pager by which he can be  
19 beeped if he was unavailable at a telephone. His  
20 instructions were to call the answering service to  
21 receive the message.

22 As a result of the Three Mile Island incident,  
23 we have changed those procedures to now provide  
24 assurance that the duty officer is available 24 hours.  
25 For a while, we maintained a 24-hour duty officer

2.6

1  
2 in the office. Recently within the last couple of  
3 weeks, we have changed that procedure so that only  
4 headquarters, our operations center, I&E, maintains  
5 the 24-hour duty officer, and he has instructions on  
6 how to reach the regional duty officer, so in other  
7 words, we have done away with our telephone answering  
8 service, and we now have either someone in the office  
9 during the day, and the duty officer does not leave  
10 home until he is sure that someone is in the office,  
11 or the person in the office does not leave the office  
12 until we are sure that the duty officer is at home.

13 Q Do you recall who the duty officer was on  
14 the morning that the accident began at Three Mile  
15 Island on March 28, 1979?

16 A Jim Devlin.

17 Q How was he contacted, to your recollection?

18 A It went something like this, as I recall: The  
19 initial notification from Three Mile Island came to  
20 the answering service shortly after seven o'clock in  
21 the morning. The answering service followed their  
22 procedure and called the duty officer's home, and did  
23 not receive any answer, and then tried to page him,  
24 again did not receive any call-in. The answering  
25 service had a priority list to go down if they could

1

Grier

23

2.7

2 not reach the duty officer. The next priority was  
3 the deputy director of the office. I am not sure of  
4 the sequence, but he called there and determined that  
5 he had already left and was en route to the office,  
6 tried the duty officer again and, I think, got the  
7 duty officer's wife, who said he was en route to the  
8 office, and attempted to page both of them. The duty  
9 officer, I understand, did receive the page, but he  
10 by that time was within a mile or so of the office,  
11 and it was quickest for him to just come on into the  
12 office, so we were vulnerable during the period when  
13 people were in transit to the office, that is true,  
14 so we have attempted to correct that by assuring that  
15 someone is in the office until the duty officer is at  
16 home.

17 Q Do you also have an emergency planning  
18 officer or response designee?

19 A Yes, we do; that responsibility is with the  
20 same section that has responsibility for inspecting  
21 licensees' emergency plans, and the section chief there  
22 has been Phil Stohr, the same individual I mentioned  
23 earlier; someone within his section would currently  
24 have not only responsibility for inspecting licensees'  
25 emergency plans, but for doing planning for the

2.8

1  
2 regional office on development of our incident response  
3 plan.

4 Q This person within Mr. Stohr's section,  
5 what would his proper title be?

6 A Emergency planning officer.

7 Q What would his exact responsibilities be  
8 in that position?

9 A He develops the incident response plan for  
10 Region I, and assures the availability of communications  
11 equipment, and whatever other equipment that we need.

12 Q Who was the emergency planning officer?

13 A That is Dale Donaldson at present.

14 Q Was he also emergency planning officer at  
15 the time of the accident at Three Mile Island?

16 A Yes, he was.

17 Q At the beginning of an emergency, what role  
18 will this region play, as compared to the role that  
19 NRC headquarters will play? How will the response of  
20 the two units, as it were, relate to each other during  
21 the early response?

22 A The response plan developed by headquarters,  
23 which was only issued shortly before Three Mile  
24 Island, I believe sometime in February, provides that  
25 I&E, and particularly the regional officers, are

2.9

1  
2 responsible for the initial response to an incident.  
3 Once the executive management team is in place within  
4 the headquarters Incident Response Center, they assume  
5 responsibility for directing NRC's response to the  
6 incident.

7 I should point out that we had not had any  
8 exercises of this arrangement prior to Three Mile  
9 Island, at least from this region. I believe there  
10 had been one exercise and maybe more between Region II  
11 and headquarters, but this region had not been, so it  
12 was really a new experience for us, but I view the  
13 initial response to be one of dispatching a team  
14 establishing communications, and at least at that  
15 time -- and initially we were the relay point between  
16 inspectors in the initial response team who were on-  
17 site and the headquarters Incident Response Center.

18 Now, subsequent to the first couple of hours  
19 when communications were established directly between  
20 the site and headquarters, a three-way communication,  
21 and more recently since the event, we have established  
22 special communications lines, dedicated lines, between  
23 all of the operating facilities and the headquarters  
24 Incident Response Center and the regional office.

25 Q What do you mean by "dedicated lines"?

Grier

1

2.10

2 A It is a direct line; it rings automatically. If  
3 someone in the control room at an operating facility  
4 picks up the phone, it will ring in the operations  
5 center and headquarters automatically. It does not  
6 ring here. The operations center at headquarters has  
7 to put the region on the circuit, but it can be a  
8 three-way conversation on that line.

9 Q You indicated some exercises between  
10 Region II and headquarters.

11 A Yes.

12 Q What would one of those exercises involve?

13 A Doing a drill, a communications drill, to man  
14 the operations center at headquarters or the incident  
15 response center at headquarters and the incident  
16 response center in the regions, and establish  
17 communications, and in its full extent, it would involve  
18 dispatch of a team to the site and establish com-  
19 munications that way. I am not sure of the extent  
20 of the drill. You could simulate someone on-site  
21 without actually putting him there, but it would be  
22 principally a communications exercise.

23 Q If an exercise were undertaken, would it  
24 be unannounced?

25 A Well, it could be. I am not aware that any



2 exercises have been undertaken unannounced to that  
3 extent.

4 Q Is it your understanding that in the  
5 response to an emergency that Region I would take  
6 the initial response, and then after headquarters was  
7 notified and got up to speed, then headquarters would  
8 begin to take the predominant role?

9 A Yes, that is my understanding, and I believe that  
10 is what the plan specifically says, that once the  
11 executive management team is in place, headquarters  
12 will direct NRC's response.

13 Q Do you review that as an appropriate  
14 response procedure?

15 A I think, in view of the Three Mile Island  
16 experience, there has to be direction of the response  
17 from the site, and I think we have learned that at  
18 least for an incident of this magnitude, you cannot  
19 direct the response completely from Bethesda. You  
20 can't direct it from King of Prussia. It has to be  
21 done on-site.

22 Q Have you made recommendations to that  
23 effect?

24 A Not, I guess, specifically, no; not formal  
25 recommendations. I think in some discussions I have

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

suggested that.

Q Let us focus on the role you actually played personally with respect to the accident.

When did you first hear of it?

A I was informed at about 7:45, the morning of March 28th. I talked about the difficulty that was experienced in notifying Region I, and to go further with that, the practice here is that when the receptionist who handles our telephone calls arrives in the office, she informs the answering service and obtains any messages that the answering service might have for the office, so when that was done, the calls that had come in earlier from Three Mile Island, the messages were received, and they were passed on by the telephone operator here to the appropriate branch chiefs, Mr. Eldon Brunner in Reactor Operations, and Mr. George Smith in Fuel Facilities and Materials Safety, so Mr. Eldon Brunner came into my office at about 7:45, having received the notification from the operator, the messages from Three Mile Island, that they had declared their emergencies, initially the site emergency and then later the general emergency, so I had that information, then, at about 7:45.

Eldon Brunner and George Smith were involved in



1  
2 establishing communications with the site at that  
3 time, and I attempted to notify headquarters. After  
4 some difficulty in reaching the duty officer there,  
5 I finally received a call from John Davis, who was  
6 acting director, I&E, and informed him of the  
7 information we had of an emergency at Three Mile  
8 Island, told him we were manning our Incident Response  
9 Center.

10 Q Why did you have difficulty contacting the  
11 duty officer at headquarters?

12 A My initial call -- I have some difficulty in  
13 remembering exactly, but I got the NRC operator at  
14 the time, and whether I called her or whether I called  
15 the duty officer and got her, I do not recall, but  
16 in any event, she indicated she would attempt to find  
17 the I&E duty officer.

18 Now, their situation was similar to ours at  
19 the time, in which the duty officer went home at night  
20 and was available to be called. The initial callback  
21 that I got was not from the duty officer but from some-  
22 body else that had been there, Nancy Ervin, on the  
23 headquarters staff. The duty officer -- let me explain.  
24 As I understand it, the duty officer at the time was  
25 Lauren Bush, who was in the Safeguards Division at

2 headquarters. The NRC operator, being unable to reach  
3 him, or at least trying to reach him in the office,  
4 had gotten Nancy Ervin. She called me because she  
5 thought that we had a Safeguards incident. I informed  
6 her that we were trying to reach the duty officer  
7 because of an incident at Three Mile Island. Subse-  
8 quently, the message got to John Davis, who called me  
9 back; that transpired between 7:45 and 8:00, when I  
10 talked to Mr. Davis, so he was informed of the event  
11 and the fact that we were manning our Incident Response  
12 Center here.

13 Q What kind of information did you have  
14 available at that point with respect to Three Mile  
15 Island?

16 A At that particular point, I think it was very  
17 limited. We were aware that they had an initial  
18 information that they had a feedwater transient that  
19 resulted in reactor scram, and at that point, there  
20 were no reported releases. I think that is about the  
21 extent of our information.

22 Well, subsequently, then, we manned the Incident  
23 Response Center, established communications with the  
24 site, with Unit 2 control room. The first calls to  
25 the site had been made from George Smith's office, and

1

Grier

31

2 after we had manned the Incident Response Center, we  
3 then established communications from that point,  
4 so from that point on, essentially we had the  
5 Incident Response Center manned, and we had communi-  
6 cations with the site.

7 We were then involved in getting a team to-  
8 gether to despatch to the site. The first car with  
9 five individuals left here about 8:45, I believe, or  
10 about an hour later, and a second car left a little  
11 bit later with two individuals.

12 Q Did you hold any meetings that morning to  
13 coordinate the Region I response?

14 A Not as such; only I went to our Incident  
15 Response Center and remained there essentially all  
16 that time and assured that the center was manned.

17 One of the first things I recall was the question  
18 of availability of our mobile laboratory, which at  
19 that time was on a routine inspection in Connecticut  
20 at Millstone, and a decision was made to contact the  
21 mobile laboratory and direct them to return to the  
22 office here to be dispatched to the Three Mile Island  
23 site.

24 Q Did you make that decision?

25 A Yes.

END 2

#3.1

ew

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

Q What is the function and capacity of the mobile laboratory?

A Well, it is used regularly. It contains analytical equipment and is used regularly in our inspection program in two functions: One, to verify the licensee's analytical capability, that is, by obtaining samples, maybe, in-plant samples of effluents from the plant and splitting that sample with the licensee and conducting our own independent analysis to see if we reach agreement; it is also used in independently collecting environmental samples and analyzing that, so it has capability for doing those types of analyses.

As far as details on the equipment, I think that is better answered by Mr. Smith, you will talk to him this afternoon.

Q What time did you issue the order for the mobile laboratory to return to this office?

A Sometime after 8:00 o'clock; I don't recall now exactly what time contact was made with the laboratory. As I indicated they were in Connecticut. They returned to the office and got here, perhaps, at 4:00 o'clock or so in the afternoon. By that time we had some better idea of the situation at Three Mile Island,

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

3.2

so they picked up the equipment and supplies from the office here and then proceeded to the Three Mile Island site, arrived there about 7:00 p.m. in the evening.

Q Why did you decide to have them come here rather than go directly to Three Mile Island that morning?

A This is not really out of the way from Connecticut, plus the fact that they needed to pick up the additional equipment, instrumentation, and supplies from the laboratory.

Q Was it also because you did not have a full understanding of the severity of the accident?

A That is true at 8:00 o'clock, but we really decided that since this is not really out of the way, and since, if they were going to be needed at the site, they needed additional supplies which they had to pick up here.

Q After you were assured that the communications center was activated and the teams were off from here that morning to Three Mile Island, what did you do?

A Well, I continued to remain in the Incident Response Center here, being aware of the information



3.3

1  
2 that we were receiving from the site, and assuring  
3 that that was being passed onto headquarters. There  
4 was consideration of the need for additional people  
5 to be sent to the site. We had, as I indicated  
6 initially, five and then two, so there were seven.  
7 The first thing I did, and I guess this was about the  
8 middle of the day, direct that another reactor  
9 inspector be sent. We had sent two reactor inspectors  
10 with the first group of seven, so we dispatched a  
11 third reactor inspector early in the afternoon.  
12 Later, I decided that we needed additional supervision  
13 at the site, and I directed Mr. Keimig to proceed to  
14 the site, so it was principally one of assuring that  
15 we were keeping contact with the site and with head-  
16 quarters, and that we were providing the people  
17 necessary at the site to maintain those communications.

18 Q Is that a fair characterization of the  
19 role you played throughout Wednesday?

20 A Yes, I think so.

21 Q Which persons, to the best of your recol-  
22 lection, were you in contact with on Wednesday  
23 concerning the accident?

24 A Here in the office, you mean?

25 Q Correct.

3.4

1  
2 A Well, of course, Eldon Brunner, who is the  
3 Reactor Operations Branch chief, and George Smith,  
4 Fuel Facilities and Material Safety Branch chief, my  
5 deputy, Jim Allen, the inspectors who were manning  
6 the phones in the center, the Public Affairs officer,  
7 Mr. Abraham from time to time, and another thing that  
8 was done, sometime during the day, when we became  
9 overwhelmed with telephone calls from the public, was  
10 to assign some individual to provide assistance to  
11 Mr. Abraham, in responding to telephone calls; at  
12 least three of the section chiefs who were not directly  
13 involved in the incident were assigned to provide that  
14 assistance.

15 There was also dealing with Tom Elsasser and  
16 the State liaison officer in terms of his contact  
17 with State representatives, and he was receiving calls  
18 from congressmen in that regard.

19 Q With which persons outside of Region I  
20 were you in contact that morning?

21 A Well, from time to time with John Davis at  
22 headquarters or Norman Moseley. There were other  
23 contacts with individuals involved at headquarters;  
24 Bernie Weiss, I remember particularly, who was involved  
25 in emergency planning at headquarters. I guess I can't

3.5

1  
2 remember the others specifically.

3 Q Who is Mr. Moseley?

4 A Director, Division of Reactor Operations  
5 Inspection.

6 Q Is he at headquarters?

7 A Yes, I&E staff at headquarters.

8 Q Were these gentlemen giving you any infor-  
9 mation that you did not previously have which respect  
10 to the site?

11 A No, I don't think they were. I don't recall any  
12 particular information of that nature.

13 I guess I have to say that I thought that  
14 communications was somewhat limited in that I -- let  
15 me back up a minute, to say that as I indicated  
16 initially we were to serve as relay point between  
17 communications at the site and headquarters because we  
18 had the telephone lines to headquarters. About the  
19 middle of the day, late morning, 11:00-12:00, or so,  
20 there was the request from headquarters, or really  
21 the direction from headquarters that the telephones  
22 be changed, that the circuits be established so that  
23 communications were directly between headquarters and  
24 the people at the site, so when that was done we  
25 really were, to a great extent, out of the relay of



1  
2 information, at least insofar as the information from  
3 Unit 2 control room went.

4 Now, we had two channels of communication with  
5 the site, with Unit 2 control room and with Unit 1  
6 control room where the licensee had established his  
7 emergency operations center, so we used the informa-  
8 tion, the communication channel from Unit 2 control  
9 room to pass operational information, and the commu-  
10 nications with Unit 1 control room to pass radiation  
11 and environmental information. We were continuing to  
12 relay radiological and environmental information, but  
13 direct headquarters communication was established  
14 about the middle of the day with Unit 2 control room,  
15 so in effect we were out of the relay at that time.

16 Q Did you have direct communications with  
17 the observation center at the site?

18 A No, we did not.

19 Q Was that established at any point?

20 A That was not established at any time.

21 Q During Wednesday then, is it fair to  
22 characterize your role as relaying information to  
23 and from headquarters, and as generally coordinating  
24 the Region I response to the accident?

25 A Yes, that is correct.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

Q Are there any specifics as to the events of that day that come to your mind that would be worthy of mention?

A Not anything particularly, I guess, that comes to mind.

Q Did you learn Wednesday of the possibility that there was an explosion within the reactor?

A No, I did not; that did not come to my attention on Wednesday.

Q When did you leave Region I on Wednesday?

A Sometime Wednesday evening; I don't remember exactly. When it became apparent by afternoon that we were going to have to continue to man the response center through the evening, I directed my deputy, Jim Allen, to go home so that he could come back and relieve me, and so I was here until he returned which I am sure was sometime after 8:00 o'clock. I don't remember exactly what time I went home, but it was late Wednesday evening, and I left Mr. Allen in charge.

Q During Wednesday, did you maintain or establish contact with persons from the Commonwealth of Pennsylvania?

A Well, I did not directly have any communications with Pennsylvania. Now, we had an individual in the

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

office who was in contact with them. It was Bob Bores who was fulfilling that function.

Again, going back to our usual procedure, this Environmental Special Project Section under Mr. Stohr has responsibility for State liaison. Dr. Bores is a member of that section, and so he carried out those responsibilities.

Q Was he the contact point for Pennsylvania personnel during the entire course of the accident?

A Not personally. He was here during the day at least initially. There was someone fulfilling that function continuously, I believe, but it was not Dr. Bores all the time. I can't answer right now who else was involved, but there was someone generally responsible for that area.

Q To the best of your recollection, did Dr. Bores remain here in the region during the entire course of the accident?

A No, he was -- he went to the site sometime later; I am not sure now exactly when he went to the site. Of course, it was on Friday when we moved a number of people to the site, additional people, when I went to the site -- George Smith and I went to the site on Friday afternoon, and sometime later I think Dr. Bores

2 came to the site, but I don't remember what time, so  
3 he was deployed to the site also. I can't say  
4 exact', when.

5 Q When you left here at the end of Wednesday,  
6 did that finish your entire involvement with the  
7 accident on Wednesday?

8 A Yes, it did.

9 Q When did you next become involved with the  
10 accident?

11 A When I returned to the office Thursday morning.

12 Q Did you return at 8:00 that morning?

13 A Well, earlier than 8:00, probably 7:00.

14 Q What was the situation here when you  
15 arrived?

16 A The center was still manned, of course. Mr. Allen  
17 was here in charge, and things were pretty much as I  
18 had left them on Wednesday morning.

19 Q Was there any new understanding with  
20 respect to the state of the reactor at that point?

21 A I don't remember particularly.

22 If I can back up a minute to Wednesday evening,  
23 one of the points that had some significance attached  
24 to it is the restart of the primary coolant pump  
25 which I believe occurred about 9:00 o'clock on

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

Wednesday evening, and I was still here when that happened, so once that had been accomplished there was very little change between the status of the reactor from the time I left on Wednesday afternoon -- Wednesday evening until I returned on Thursday morning.

Q Could you characterize for us what you did on Thursday morning, what the role you played was at that time?

A Well, I resumed the same role that I had before, directing the operations here in the Incident Response Center. I did have a meeting of my branch chiefs the first thing Thursday morning to review where we were. As I recall, the things we discussed were that the objectives of response to the events should be along these lines: One, bringing the reactor to cold shut-down; two, identify the sources of release of radioactive materials and get them stopped; a third, I guess, was to determine what was being released or what had been released; and fourth, establish the sequence of events in the accident. Those were the order of priority that I placed on things that I had thought had to be done.

Q When did you first become aware of the

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

possible intentions of the utility to dump some industrial waste water into the Susquehanna River?

A The first thing that I recall in that regard was sometime Thursday evening when there were some questions from headquarters on that matter, and subsequently, I believe about 6:00 p.m., or so, I recall that I received a call from the Incident Response Center at headquarters with instructions that I should call the plant superintendent at the site and direct him to stop dumping industrial waste water into the river.

Q Someone gave you directions to this effect?

A Yes.

Q Who was that?

A I came from the executive management team; who specifically made the telephone call, I am not sure I recall, but I was informed that the order came from Mr. Gossick, who was in the center at the time.

Q Do you remember what time Thursday evening this was?

A My recollection is about 6:00 p.m., but I don't remember it precisely. It was sometime late Thursday afternoon or early evening.

Q This call was from someone at NRC



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

headquarters?

A Yes.

Q The call came in and instructed that you should notify the site, and indicate that they should not dump this waste water?

A That is correct.

Q At this point, was there a dump ongoing, and the effect of your order would have been to stop the activity?

A That is my understanding of the situation.

Q Did you follow through on those instructions?

A Yes. I contacted the inspector, one of the inspectors at the site, I believe, Dr. Gallina, who in Unit 1 control room, and asked him to locate the plant superintendent so that I could talk to him, and that was done. I relayed to him, in effect, the order that he should stop releasing from the industrial waste tank to the river.

Q Who was the plant superintendent with whom you spoke?

A Gary Miller.

Q Mr. Miller?

A Yes.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

Q Was it your understanding that the waste water that they were at that time releasing was radioactive?

A There was some radioactivity in the water. It had been analyzed, but the level of radioactivity was such that it met NRC requirements for release to the river.

Q How did you know that?

A From the results of the analysis that were made.

Q Where was the analysis made?

A I believe, our mobile laboratory had analyzed the samples for the licensee.

Q Did you also hear of the results of that analysis by your mobile laboratory at the time or by the time the call from headquarters came in?

A I was aware of the analytical results. I don't believe I knew at the time that the analysis had been done by our laboratory, but I subsequently learned that. I believe, Mr. Smith here was aware at the time that we had done the analysis, and that there was no problem in terms of meeting NRC requirements.

Q Just to backtrack for a moment, you are indicating that the first you learned of the entire waste water dumping issue was the call from

1  
2 headquarters at NRC, is that correct?

3 A Yes, that is my recollection.

4 Q When you called the site to relay the  
5 order, at that point you were aware that the analysis  
6 of this waste water indicated that it was within NRC  
7 limits?

8 A That is correct.

9 Q Do you recall precisely where or how you  
10 became aware of the analysis?

11 A No. I know there was discussion with Mr. Miller  
12 when I talked to him on the phone about the analytical  
13 results, and the fact that he had made the determina-  
14 tion that they met any NRC limits for dumping; whether  
15 that was the first awareness that I had of the  
16 analytical results or not, I don't recall.

17 Q Have you prepared any memoranda or other  
18 notes with respect to the relay of this order or other  
19 events involving the waste water dump?

20 A This is recorded in our Incident Response Center  
21 log. I can provide you with copies of the sheets, I  
22 think, on which that information is logged.

23 Q It is quite possible that Mr. Sherman has  
24 already come across those documents.

25 Are there any other notes or documents

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

that make an account of these events?

A Not that I am aware of, no.

Q How was your order received by Mr. Miller at the plant?

A He agreed to stop dumping or releasing somewhat reluctantly because of the situation that would develop if he did not continue to release it because the tanks were full, and if the water were permitted to overflow into the building it would eventually reach the river anyway through a storm drain, I believe, to a point of low flow in the river, and it was his view that it was preferable to release through the designed release point of high river flow, and since it met any NRC limits as far as radioactivity goes, he felt to continue the release was the preferable course of action; nevertheless, because of the order, he agreed to stop release.

Q What was your reaction to his thoughts in that regard?

A I was inclined to agree with him. I passed that information onto headquarters.

Q To whom did you pass that information on?

A I specifically don't recall who was on the telephone at the time, but the information was relayed

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

to headquarters.

Q Did you personally relay that information?

A Yes.

Q Did you relay that information immediately upon the completion of your conversation with Mr. Miller?

A Yes. I may have talked to Mr. Moseley, but I am not sure. In any event, I personally relayed the information to headquarters, yes.

Q When you originally received the call from headquarters directing you to pass the order along, did you question the order at that time, or enter into a discussion as to the wisdom of the order at that time?

A I don't believe I did. There was some discussion here about what it would mean if the releasing were stopped, but I don't think it was any discussion with headquarters, but it really came after my discussion with Gary Miller.

Q Did you establish contact with any representatives of either the counties surrounding Three Mile Island or of the State with respect to this matter?

A No, I did not.

2 Q Did you contact Mr. Abraham or any other  
3 persons in the media with respect to your decision or  
4 with respect to your activities?

5 A Not on this issue, no.

6 Q Are there any other events of Thursday  
7 afternoon which occurred which are worthy of mention?

8 A The other thing that I recall on Thursday, and  
9 I am not sure of the precise time, but sometime then  
10 we became aware of the radioactivity levels in the  
11 primary coolant sample which had been taken, and the  
12 indication that that provided of the high levels of  
13 radioactivity, and hence apparent significant fuel  
14 damage; that is the one event of Thursday that I  
15 recall.

16 The other activity of Thursday concerning our  
17 involvement here, to some extent there were a number  
18 of congressmen, representatives, who were sent to the  
19 site on Thursday, and we were involved in responding  
20 to requests from headquarters to try to make some  
21 arrangements to accommodate their visits which caused  
22 me some difficulty in terms of providing people. We  
23 were asked to initially provide someone to meet them  
24 at the airport and drive them to the site, and that  
25 was an activity that I was not prepared to take care of.



1  
2 We don't have those sorts of resources here, so that  
3 was an involvement on Thursday, as I recall.

4 Q Was that an interruption, or was it more  
5 of a hassle?

6 A Well, it was an interruption, I think.

7 Q Do you think that occurrence limited the  
8 effectiveness of the response of Region I?

9 A I think it detracted to some extent. Well,  
10 Mr. Keimig, for instance, who had been dispatched to  
11 the site on Wednesday was involved on Thursday in the  
12 briefings of congressmen, and that really detracted  
13 from his principal responsibilities at the site. I  
14 did send a State liaison officer over on Thursday, and  
15 he was present for some of the briefing of congressmen,  
16 so it was a detraction, I think, yer.

17 (Continued on following page.)  
18  
19  
20  
21  
22  
23  
24  
25

RZ/mf-12

Q Getting back to the waste water question  
3 again, when you called headquarters back and in-  
4 dicated that you had some sympathy with the posi-  
5 tion of the utility on this matter, what kind of  
6 response did you get?

7 A I don't recall any specific response except  
8 that they accepted the information.

9 Q Was there any indication that they  
10 might reconsider the order at that point?

11 A Not that I recall. The order was still in  
12 effect when I left Thursday evening. Some time  
13 later, perhaps midnight, I believe, or so, the  
14 order was lifted, but it was in effect for several  
15 hours..

16 Q Did these events that you have just  
17 recounted terminate your involvement with the waste  
18 water dump issue? Did you have any other personal  
19 involvement with it other than what you stated?

20 A That is the extent of it.

21 Q When did you leave here on Thursday?

22 A Again, it was some time late in the evening;  
23 I don't recall precisely, but I would guess, 8:00  
24 or 9:00 o'clock.

25 Q When did you come back?

2 A Again, 7:00 to 8:00 Friday morning.

3 Q Did you have any involvement over the  
4 course of the evening while you were away from  
5 here with the accident?

6 A No, I did not.

7 Q What was the state of affairs when you  
8 arrived on Friday morning?

9 A I think initially it was pretty much as it  
10 had been on Thursday. Activity picked up during  
11 the course of the morning when the question of  
12 evacuation was raised.

13 Q How did that issue first come into this  
14 office?

15 A My recollection is that we first received it  
16 from the site from people who were asking the  
17 question, "Has NRC recommended evacuation?"  
18 Some of the inspectors at the site had heard reports  
19 on the radio there, and they contacted us to find  
20 out what was going on, and we had received no in-  
21 formation at that time here that evacuation was  
22 recommended or even being considered.

23 Q What time was that?

24 A I am not sure of the time now. I would guess  
25 some time between 8:00 and 10:00 in the morning.

2

Q Do you recall who called from the site?

3

A Dr. Gallina may have called. It also may have come from Phil Stohr. We had established telephone communications with the mobile laboratory; a telephone had been put into the mobile laboratory at the site, which was located adjacent to the observation center, by the way, and I have some recollection that they had a radio in the mobile laboratory, and it may be that they had gotten the initial radio reports over there and called here, but I am not real clear on that point.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Q What information was given to you other than the question, "Did NRC order an evacuation?" Was there anything else?

A No, that is the way it was put. As I recall, I contacted headquarters and I think it was Norm Moseley again, to ask him if NRC had recommended evacuation.

Q What response did you get?

A Well, he didn't know, as I recall, at that time.

Now, the next thing that I recall in that regard was that Dr. Bores, who again was in communication with the State, came up to the Operations

2 Center and said that Tom Gerusky, being with the  
3 State of Pennsylvania Bureau of Radiological Health,  
4 so I went to the office outside the center and  
5 took his call, and he had the same question, "Is  
6 NRC recommending evacuation?"

7 I told him, I had no knowledge at that  
8 time about that, that we had, but I would attempt  
9 to find out from Headquarters if that had been done.

10 Q Did your conversation with Mr. Gerusky  
11 cover any other subject?

12 A No, that was the only subject, so I again called  
13 Mr. Moseley in an effort to find out, and as I recall  
14 the only thing I learned was that there was discus-  
15 sion of evacuation, but that it was not clear to him  
16 at that point; he couldn't find out whether or not  
17 such a recommendation had been made.

18 Q Where was Mr. Moseley located when you  
19 called him?

20 A In the Headquarters' Incident Response Center.

21 Q Did you make any other efforts to  
22 determine whether an evacuation order had been  
23 issued?

24 A No, I think that was my only effort.

25 Q After these conversations, what happened

Grier

5

1

2 next?

3 A I don't remember exactly how long it was, but  
4 eventually I learned that the chairman of the NRC  
5 had made such a recommendation initially, and then  
6 I believe, or at least my understanding is, that it  
7 was revised, and the recommendation was that school  
8 children and pregnant women be evacuated. At that  
9 point, I recontacted Tom Gerusky to tell him what  
10 I had learned, and in the meantime he had gotten the  
11 information directly.

12 Q Do you remember what the initial evacuation  
13 order or recommendation was from the NRC?

14 A Not precisely, no. It is my impression now,  
15 and I don't remember whether I knew it at the time,  
16 but my impression now is the recommendation to evacu-  
17 ate from within five miles of the plant.

18 Q How much time elapsed, roughly, as you  
19 can recall, between your first notification that  
20 the NRC might have ordered evacuation and your first  
21 hearing finally that Mr. Hendrie had recommended  
22 an evacuation of pregnant women and school children?

23 A My impression is that it was something like  
24 30 minutes to an hour, but I am not exactly sure;  
25 some of our logs at that time may give some indication



Grier

1  
2 of the times involved.

3 Q What was your personal reaction to the  
4 information that the NRC might be ordering an  
5 evacuation?

6 A I was somewhat surprised because it did not  
7 seem to us from the information we had that the  
8 situation had deteriorated, so that I did not really  
9 understand the basis for the recommendation.

10 Q Did you consult your State liason  
11 officer or your Emergency Planning officer on this  
12 matter at that time?

13 A No, I did not.

14 Q Did you have any other involvement with  
15 the question of recommendations for evacuation after  
16 those discussions?

17 A No, I did not.

18 Q What did you do on Friday afternoon, in  
19 general terms?

20 A Well, about the middle of the day on Friday,  
21 I received the information that Harold Denton and  
22 others from the NRR were proceeding to the site,  
23 and I was directed, as I recall, that either I should  
24 go to the site or Jim Allen, the deputy director,  
25 should be sent to the site, so it was my decision

Grier

7 1 that I should go.

2  
3 Q From whom did you receive this information  
4 concerning Mr. Denton's traveling to the site?

5 A That was Mr. Dudley Thompson from the I&E  
6 Headquarters Staff.

7 Q Is he also the person who directed that  
8 either you or Mr. Allen go to the site?

9 A Yes.

10 Q Why did you decide to go yourself?

11 A I felt it was my responsibility to go at that  
12 time and direct the I&E effort from the site, and  
13 leave Mr. Allen in charge here, so it was a personal  
14 decision on my part to go.

15 Q When did you leave for the site?

16 A We requested a helicopter which initially  
17 would be here at 3:00 o'clock, as I recall. I think  
18 we asked for it somewhat earlier, maybe as early  
19 as 2:00 or 2:30; the initial information was that  
20 the helicopter would be here at 3:00; it was  
21 actually about 3:30 when it landed in the parking  
22 lot here.

23 I had also directed George Smith to  
24 go with me, so we were picked up here at 3:30, and  
25 proceeded directly to the site by helicopter.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

Q When did you arrive?

A It was about 4:30. The helicopter stopped enroute to refuel, so it was about an hour.

Q Where did you go when you arrived at the site?

A The helicopter landed at the point adjacent to the Observation Center, and I proceeded to the mobile laboratory, which at that time was our principal point of contact for I&E on the site. I later met with Harold Denton, and he had already arrived. He was utilizing a house -- a residence, which is adjacent to the Observation Center, and he had a meeting of all NRC people in the living room of that house. I am not sure at the time, but I would guess it would have been 6:00 o'clock, or something like that.

Q You were present at the meeting?

A Yes.

Q What was the purpose of that meeting?

A Well, it was sort of a general direction on the part of Mr. Denton as to what we needed to do to get the NRC personnel all involved and the direction as to what we should do.

Mr. Vollmer and Mr. Stello were there,

9

1

Grier

2 and some direction that we should decide how we  
3 were going to be organized, and how we were going  
4 to handle the response.

5 Q What actions did you take while you  
6 were at the site?

7 A Well, I continued to principally direct and  
8 coordinate the response or the activities of the  
9 I&E people who were on-site. We were involved in  
10 three areas. We had reactor operations inspectors  
11 who were involved in surveillance of licensee acti-  
12 vities in the control room; we had health physicists  
13 who were involved in surveillance of activities in  
14 the Health Physics area in the plant; and we had  
15 the environmental personnel who were involved in  
16 coordinatng all of the environmental activities,  
17 so there were three principal activities that we  
18 were involved in.

19 Now, we had, in addition to personnel  
20 from Region I, by that time we had a number of  
21 people from other regions who had been dispatched  
22 to the site to support our efforts. As I recall,  
23 by the end of the day on Thursday, from Region I  
24 we had about 25 people at the site. By the end of  
25 the day Friday or into Saturday, as the personnel

10

1

Grier

2 from other regions were arriving, that number had  
3 doubled, so we had something on the order of 50-60  
4 people on-site, I think, and I was involved in  
5 setting up the organization, providing, of course,  
6 24 hour coverage in all areas, so we had to have  
7 shift organizations and establishing the procedures  
8 for carrying out our responsibilities.

9 Q Did any other events occur on Friday  
10 night that you considered to be significant?

11 A The principal thing, I guess, I was involved  
12 in, was in going with Mr. Denton to the Governor's  
13 office for his initial meeting and briefing with  
14 the Governor, which occurred some time Friday  
15 evening.

16 Q Did you participate in the briefing of  
17 the Governor?

18 A I was present. The principal part of the  
19 briefing was handled by Mr. Denton.

20 Q And you also attended the press con-  
21 ference?

22 A Yes.

23 Q When did you leave the site on Friday?

24 A My recollection is that it was after midnight.  
25 I checked into the motel some time, it seems to me,

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

after midnight.

Q Did you have any involvement at all with the accident after leaving the site that night?

A No.

Q Did you get back the the site the following morning?

A Yes, Saturday morning.

Q Approximately what time?

A 7:00 to 8:00 o'clock, as I recall.

Q Where did you report when you arrived at the site?

A We had established a trailer for our operations. Trailers had been set up on Friday evening, and there were a number of trailers there, and the trailer which was used for I&E personnel was adjacent to the one which Mr. Denton and the NRR people were operating out of, so I had set up operations in the I&E trailer, and I reported there.

Q During the course of Saturday, did you maintain the same role that you had played on Friday after arriving on the site, i.e., the role of coordinating?

A Yes. That essentially was my role as long as I was at the site.



1  
2 Q From Saturday on, did you even temporarily  
3 step out of that role and assume a different function?

4 A No.

5 Q Were you aware on Saturday of attempts  
6 that were ongoing to extend the emergency planning  
7 out ten or 20 miles around the area?

8 A I'm not sure now when I became aware of that,  
9 whether it was Saturday or Sunday. I attended a  
10 meeting in Harrisburg, which I believe was not until  
11 Sunday, at which time is the first recollection that  
12 I have of any discussion about extending it out to  
13 20 miles.

14 Q That is your first recollection of the  
15 whole issue being raised?

16 A 20 miles, yes.

17 Q Where was this meeting held?

18 A It was held in the office of the Pennsylvania  
19 Emergency Management Agency, PEMA.

20 Q At what time was it held?

21 A I would guess 5:00 o'clock in the afternoon.

22 Q Do you remember who was at the meeting?

23 A From NRC, I went, and there was a representa-  
24 tive from State Programs who was assigned to the  
25 site, Joe Lubenau. There were representatives from

1  
2 DOE, and the principal one that I remember is Joe  
3 Deal, who headed up DOE's activities. There were,  
4 perhaps, another three or four DOE representatives,  
5 including Patterson, and the other names I don't  
6 recall. There were State representatives. Gerusky  
7 was there from the Bureau of Radiological Health.  
8 There were representatives from PEMA. Colonel  
9 Henderson was in and out, as I recall. He was not  
10 present during the entire meeting, but he was there  
11 for part of the meeting. There were probably ten  
12 or twelve people there in total.

13 Q Were there any representatives from the  
14 Governor's Office or the Lieutenant Governor's  
15 Office?

16 A Not that I recall.

17 Q Do you recall if there were any repre-  
18 sentatives there from Dauphin County or other oute-  
19 lying areas?

20 A I couldn't say.

21 Q Does the name Kevin Molloy refresh your  
22 recollection?

23 A No, it doesn't.

24 Q Do you remember who called the meeting?

25 A My understanding was DOE had requested it.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

How that came about, I am not sure, but my understanding was that DOE had responsibility for any relocation of NRC personnel if we had had to relocate from our site at the observation center, so that was part of the matter that was discussed; what part of the evaluation would be handled by DOE.

Q Was there discussion at the meeting with respect to extensive planning?

A No, not; only to the extent that consideration out to 20 miles should be given. There were no details of planning discussed, but only the suggestion that that needed to be considered.

Q Do you remember who chaired the meeting, if anyone?

A Well, as I indicated, I think Joe Deal was principal -- or, at least one of the principal spokesmen for DOE. There was another DOE person, whose name I have not been able to recall, who was involved particularly in terms of evacuation planning. Joe Deal was there on a continuing basis in terms of DOE's emergency response or radiological response, and he had been there since I don't know when, Wednesday or Thursday, but the other representative whose name escapes me, was there principally

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

in terms of any planning for evacuation, not only NRC, but the other Federal activities.

Q I am not totally clear myself on the purpose for the meeting.

Is it accurate to say that the purpose of the meeting was to inform the other Federal Agencies that were on-site at Three Mile Island as to what steps they should take if the situation deteriorated; is that an accurate statement?

A I think, well, this was the first time that I personally became aware that we needed to plan for such an eventuality. Now, of course, all Federal Agencies were not represented at that meeting. It was principally DOE, NRC, and the State. It was to make the State aware, I think, of what planning was going on as far as DOE was concerned in terms of the possibility of having to relocate NRC-DOE activities, if that became necessary, and what would be done if that became necessary.

Q Was the purpose also to notify NRC of DOE's intentions?

A Yes, right, or at least that was the first I became aware of it.

Q Was this the first of a series of

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

meetings or a number of meetings among these parties  
on these questions?

A There were not any other meetings quite of  
this nature that I recall.

Subsequently, and I think that was  
probably on Monday, there were meetings of all  
Federal Agencies involved, representatives from  
DCPA, I guess, and Mr. Adamcik is the individual  
that I have in mind. I guess he was the senior  
individual involved as far as DCPA goes, and he had  
regular meetings, I believe, starting on Monday in  
terms of coordinating all Federal activity.

(Continued on the following page.)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

RZ 5 1c

Q Did the NRC personnel ever have any meetings just of their own people with respect to emergency planning?

A In terms of this particular -- you mean, of what we would do?

Q That is correct.

A No, I don't recall that there was any meeting on that subject, not that I attended.

Q Did you have any further involvement beyond what you just stated with respect to contingency planning?

A There are two things I might mention: One, there was an effort to develop the contingency plan for NRC, which was carried out by Dale Donaldson and someone who was at the site at that time; and secondly, there was a representative under my direction who attended these regular meetings that the DCPA had. This was Mr. Genroy, who is deputy director in Region III, who was assigned to the site as part of the I&E effort, and I assigned him the responsibility of being NRC representative to those meetings.

Q Did you have any other involvement with the whole area of contingency planning in case matters would deteriorate?



5.2

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

A I believe that is the extent of it.

Q Were you aware at any time on Saturday or any other time of any possible sabotage threat?

A I have some recollection that we received information some way that there was going to be an effort at savotage. I don't recall now precisely how the information came, but at some time, and my impression was that it was in this time frame; I did contact the F.B.I. and informed them of this information we had.

Q Would this have been Saturday evening?

A I think so, but I guess I have a little difficulty in placing times on all of these things right now.

Q Do you recall whom you contacted at the F.B.I. on this?

A I called the Philadelphia office because I had the telephone number for that office and talked to the agent on duty.

Q Did you have an impression at that point as to how any sabotage attempt might be carried out or any details?

A No.

Q What response did you get from the telephone call to the F.B.I.?

5.3

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

A My recollection is that they would notify, I believe, people in the Harrisburg area of the information that they had; that is the only thing I recall.

Q Did you have any involvement with this question of possible sabotage beyond hearing of it and calling the F.B.I.?

A The other thing that was done was to assure that people at the site were aware; Pennsylvania state police were on-site, and they were made aware of the information we had, and the licensee's security people, as I recall.

Q Did you or someone at your direction make the Pennsylvania state police and the licensee's security personnel aware of this?

A Yes. There were two individuals in the I&E group from our Physical Security Section that I had been using in a number of different areas. They had been on-site when I arrived on Friday, and actually, they had gone to deliver some equipment to the site, and I directed them to remain on-site, so they had been really involved in administrative functions in terms of setting up the trailer, telephone communications, and that sort of thing, but they were also used to some extent in security matters whenever there

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

5.4

was something that needed to be attended to, so they were informed, and they, in turn, were directed to inform the state police and the licensee's security personnel.

Q Who were these persons?

A Mike Rogers and Bill Madden.

Q And they are Region I personnel?

A Yes.

Q Did you ever hear any word as to the response or the reaction of the Pennsylvania state police or the licensee's security to this new information?

A No, I don't remember anything.

Q Do you remember any concern at that time with respect to the President's visit that had been scheduled for Sunday in relationship to this sabotage?

A No, not in relationship to that; I didn't connect that at all.

Q Did you have any reason to form an opinion one way or the other as to whether this sabotage threat was a real one or a hoax?

A My impression at the time was that it was a hoax.

Q Why did you have that impression?

A I am not sure now, but I don't -- I just don't

1

2 recall.

3 Q Can you recall the names of any other persons  
4 who might have had information with respect to the  
5 possible sabotage threat?

6 A I believe we informed headquarters of the  
7 information, the group in the I&E headquarters staff,  
8 the Safeguards Division, under Mr. Howard . I don't  
9 recall now whether Mr. Howard was informed directly  
10 or the members of his group, but it is my recollection  
11 that they were made aware of the threat.

12 Q Was PEMA also made aware of the threat,  
13 to your recollection?

14 A Not directly, that I am aware of, although my  
15 impression is that the state police would have  
16 informed PEMA, but I can't confirm that.

17 Q Did any other events occur on Saturday  
18 which we have not yet mentioned that you would like  
19 to bring up?

20 A I don't think of any, no.

21 Q Let us move on to Sunday. What happened  
22 on Sunday that was of significance, to your thinking?

23 A Well, I guess the principal thing was the visit  
24 by the President.

25 Q Did you have any involvement with that

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

visit or the preparation for it?

Yes, I was involved in terms of briefing Mr. Denton, preparing him for his briefing in terms of environmental radiological information that we had, the current status, and I attended his briefing of the President at the Harrisburg Airport, accompanying Mr. Denton at that briefing.

Q Did you participate in the briefing at any time?

A No, I was simply present.

Q Did any other events occur on Sunday in which you stepped out of your role as coordinating authority for Region I at the site?

A The only other event that comes to mind, and I am not sure whether Saturday or Sunday, but again, I accompanied Mr. Denton at a press conference which was held in Middletown, and that may have been Saturday afternoon. It was the press conference at which the question of the hydrogen bubble particularly was the issue, so that is the other event in this time frame where I was really not involved in coordinating the I&E activities; whether that was Saturday or Sunday, I am not sure at this point.

Q When did you finally leave Three Mile

5.7

1 Island Unit 2 to to return to Region I?

2 A Well, I was there until the end of that first  
3 week in April, went back again for the next week; I  
4 came home for the weekend and went back for the next  
5 week. I then was back for a few days, and then I  
6 think I went back for another week, so I am not sure  
7 now exactly of the time, but I was there on the order  
8 of some three weeks with some breaks in between.

9 Q During that three-week period, were there  
10 any events that occurred that you considered of note  
11 or significance that you would like to bring up?

12 A Well, I don't think anything particular; things  
13 continued.

14 Q What steps has Region I taken to change its  
15 operations because of the accident at Three Mile Island,  
16 or as a result of it?

17 A Well, I have already indicated some of the things  
18 we have done in the area of duty officer, improved com-  
19 munications in the Incident Response Center with the  
20 dedicated telephone lines. We have not yet been able  
21 to really evaluate our plan and see what changes we  
22 need to make; that has to be done.

23 I think those are the only areas, really, that  
24 we have made changes at this point. We have continued  
25



1

5.8

2 to be involved with Three Mile Island to a great extent  
3 because we have people on-site that are still involved  
4 with inspection and surveillance of the activities  
5 going on. We have also had considerable involvement  
6 with the I&E investigation which has been going on  
7 since that time. Mr. Allen had been in direct charge  
8 of that, and we have had some people involved and  
9 have been involved to a great extent in terms of  
10 administrative support to that activity.

11 We have been involved in other areas which I  
12 would describe as being a fallout from the Three Mile  
13 Island incident in terms of inspections at other reactor  
14 facilities. The I&E bulletins which were dispatched  
15 to all facilities after the Three Mile Island event  
16 had required extensive inspections and followup at  
17 other sites, so this has really taken our resources to  
18 a great extent. We have not had full opportunity to  
19 evaluate and make the changes that we need to make.

20 Q When do you expect that you will be able  
21 to accomplish that goal?

22 A Well, I am hoping that soon after the first of  
23 September, that we will be in a better position to do  
24 some of that. I don't see much hope before that.

25 Q How long do you think it will take once



5.10

1  
2 responsibilities for support to particular reactor  
3 types. I envision one group will be pressurized water  
4 reactor support, and the other section will be boiling  
5 water reactor support, and assigning them responsibility  
6 for in-depth reviews of licensee event reports, for  
7 full understanding of the particular reactor systems,  
8 and then in-depth understanding in those areas. I  
9 think we have not been organized to provide the real  
10 technical support in those areas that we need.

11 We need to do more in terms of better coordina-  
12 tion between reactor operations and the health physics  
13 or radiation protection areas; particularly, I think  
14 we need to, and this has to do with our emergency  
15 planning in terms of integrated response of operations  
16 and health physics; we can't leave emergency planning  
17 just to the emergency planners.

18 As I indicated, we need to look at our emergency  
19 response plan here, in terms of revising that. I think  
20 we need -- this is bigger than the region, but we need  
21 to look at having better communications capability,  
22 mobile communications capability, in terms of being  
23 able to deploy from the regional office to the sites,  
24 and better radiation monitoring capability for the  
25 response team to take with them.

5.11

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

Those are some of the things that I have in mind.

Q Do you have any final thoughts or comments or impressions that you would like to put on the record?

A No, I don't think so.

MR. PEARSON: Then we shall conclude the deposition.

(Whereupon, at 11:25 a.m., the within deposition was concluded.)

-----  
Boyce H. Grier

Subscribed and sworn to  
before me this \_\_\_\_ day  
of \_\_\_\_\_ 1979.

-----  
Notary Public

