

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

1 In the Matter of:

2 IE TMI INVESTIGATION INTERVIEW

3 of

4 Adam W. Miller  
5 Shift Foreman  
6 Metropolitan Edison Company

7  
8  
9 Trailer #203  
10 NRC Investigation Site  
11 TMI Nuclear Power Plant  
12 Middletown, Pennsylvania

13 April 22, 1979

14 (Date of Interview)

15 July 2, 1979

16 (Date Transcript Typed)

17 53

18 (Tape Number(s))

19  
20  
21 NRC PERSONNEL:  
22 Owen C. Shackleton  
23 Dorwin R. Hunter  
24  
25

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1 SHACKLETON: The time is 3:52 p.m., the date is April 22, 1979. This  
2 is an interview of Mr. Adam W. Miller. Mr. Miller is a shift foreman  
3 for Metropolitan Edison Company in Operations at Three Mile Island  
4 Nuclear Power Plant. Prior to going on tape Mr. Miller read a document  
5 provided by the U.S. Nuclear Regulatory Commission which outlined the  
6 purpose and the scope and the authority of the Nuclear Regulatory  
7 Commission. He was asked three questions at the end of this document  
8 in which he responded yes to all three. At this time I am going to  
9 repeat them and I would appreciate it Mr. Miller if you would respond  
10 so we have it as a matter of record. Present for this interview is  
11 Mr. Dorwin R. Hunter. Mr. Hunter, what is your job now, sir?

12  
13 HUNTER: I am a inspector specialist with the IE Group, of the U. S.  
14 Nuclear Regulatory Commission.

15  
16 SHACKLETON: And the moderator speaking is Owen C. Shackleton, Investi-  
17 gator for Region Five, U. S. Nuclear Regulatory Commission. Mr.  
18 Miller, did you fully understand the text of the NRC Document that I  
19 provided to you?

20  
21 MILLER: Yes, I did.

22  
23 SHACKLETON: Do we have your permission to tape this interview?  
24  
25

2001 316

1 MILLER: Yes.

2  
3 SHACKLETON: And would you like a copy of the tape?

4  
5 MILLER: Yes.

6  
7 SHACKLETON: I thank you very much. Mr. Miller, for the record would  
8 you please provide us with your date of birth?

9  
10 MILLER: 12/20/50.

11  
12 SHACKLETON: And your social security number.

13  
14 MILLER: 191-42-0954.

15  
16 SHACKLETON: Your place of residence.

17  
18 MILLER: Annville, Pennsylvania, 136 South King St.

19  
20 SHACKLETON: And your home telephone number please.

21  
22 MILLER: Area Code 717-867-5100.

23  
24 SHACKLETON: Thank you very much. I'll turn the questioning over to  
25 Mr. Hunter.

2001 317

1 HUNTER: Ok, Adam, would you give us some background and your history  
2 on how you got into this business and how long you have been working  
3 for Met Ed, and progressed up to being a shift foreman today.

4  
5 MILLER: I'll start back in 1968. I entered college at Linden Valley  
6 College. I graduated in 1972 with a B.S. in chemistry and in the I  
7 had several non-related jobs for the next few months, and in April,  
8 1973 I started working for Met in their their training program for  
9 auxiliary operators. I was an auxiliary operator for approximately a  
10 year, year and a half, about a year and a half on Unit 1. Then I bid  
11 into a CRO job and I got the CRO job in Unit 2. That was about the  
12 middle of 1975, somewhere in that time period, and then last year in  
13 August of 1978, I was promoted to shift foreman in Unit 2.

14  
15 HUNTER: OK, We want to talk about your involvement in the even' ; of  
16 March 28, 1979. I'd like to get from you what time you arrived on site  
17 that day.

18  
19 MILLER: Ok, I was ready to leave for work about quarter to six,  
20 twenty of six, around there and I got a phone call saying I should get  
21 in as soon as possible, they were having problems there. Ok I was  
22 ready to leave so, basically I got there as soon as I could. I got  
23 there approximately twenty after six, twenty five after six, around  
24 there.  
25

2001 318

1 HUNTER: OK, and when you came on site where did you report?

2  
3 MILLER: I went directly to the Unit 2 control room.

4  
5 HUNTER: And what assignment did you receive at that time?

6  
7 MILLER: Well, at that time the duty crew was still on, so they were  
8 pretty involved in what was going on and I didn't for awhile I didn't  
9 really get any direct, directly what happened. So I was just doing  
10 whatever I was requested to do for the next couple hours.

11  
12 HUNTER: Can you recall what you were assigned to do during that  
13 time?

14  
15 MILLER: Most of the time for the first, probably for the first three,  
16 four or five hours I was monitoring the radiation monitors in the  
17 control room.

18  
19 HUNTER: What were the conditions of the Radiation Monitors at the  
20 time you started? That you came on?

21  
22 MILLER: When I came on several of the building exhaust monitors were  
23 in the alert and alarm status.  
24  
25

2001 319

1 HUNTER: Did you keep a log of those of your monitoring of the radiation  
2 alarms?

3  
4 MILLER: Well, around seven o'clock, I believe it was around that  
5 time, site emergency was declared, and all the people that were gathered  
6 when it was declared, they were keeping that information, you know  
7 figuring out what release rates were going where. Ok, and they needed  
8 the readings from the monitors that I was looking at.

9  
10 HUNTER: Ok, did you pick the monitors up somewhere you got there  
11 around six twenty five, how soon did you pick that assignment up?

12  
13 MILLER: I couldn't tell you exactly.

14  
15 HUNTER: Was it fairly soon?

16  
17 MILLER: It was probably within a half-hour after I got there.

18  
19 HUNTER: Did you have the assignment before the site emergency and  
20 local emergency was declared?

21  
22 MILLER: Yes, the way I recall it.

23  
24 HUNTER: How many alarms were on there, any alert or any alarm conditions  
25 when you picked it up?

2001 320

1 MILLER: I couldn't, there was a lot of alarms as far as specifically  
2 which ones, I couldn't tell you any more of those almost a month ago.

3  
4 HUNTER: Do you know what had occurred, is there an event that occurred  
5 at the time you picked up that position or that assignment that you  
6 could key to so we'll know when you walked over to the panel?

7  
8 MILLER: Nothing specific, just I did notice a lot of the alarms, were  
9 in their alarm condition so I went back to the panel starting getting  
10 specific readings. O.K.

11  
12 HUNTER: Were you calling those out to somebody or actually writing  
13 them down?

14  
15 MILLER: I remember well, I might have written them down for a short  
16 time and giving the information to the Emergency Coordinator in the  
17 Unit 2 Control Room.

18  
19 HUNTER: And who would that be?

20  
21 MILLER: That position shifted a few times. It was, I don't remember  
22 exactly, there were about three different people who were that, I know  
23 Gary Miller, he's the Station Superintendent. For awhile he was the  
24 Emergency Director, and I think Jim Seelinger, he's the Unit 1 Super-  
25 intendent, he was the Director for awhile.

2001 321

1 HUNTER: You were supplying the information to these fellows.

2  
3 MILLER: I wasn't supplying directly to them I was supplying to somebody  
4 who was getting it to them. I noticed people that was being shuffled  
5 around a lot.

6  
7 HUNTER: And you say you stayed on there how long on the panel actually  
8 monitoring those?

9  
10 MILLER: I was probably on the panel for several hours, four, five  
11 hours at least.

12  
13 HUNTER: Between like seven o'clock or so I know when the alarm,  
14 whenever you went on there, did you or were you aware of what was  
15 happening in the plant?

16  
17 MILLER: Well, not specifically, it was in real unusual condition and  
18 the people who were on at the time didn't really have a chance to turn  
19 it over to anybody so they were on it pretty much and I myself didn't  
20 really get involved with what was going on.

21  
22 HUNTER: Ok, the radiation monitor panel was located where, on the  
23 backboard.  
24  
25



1 MILLER: Yeah

2  
3 HUNTER: On the right side, of the,

4  
5 MILLER: Well it's on the back behind the main control console and  
6 that would be panel No. 4. It's directly behind Panel No. 4 a little  
7 bit off to the left.

8  
9 HUNTER: Who was the closest person to you in that area, did you talk  
10 to anybody while you were back there?

11  
12 MILLER: Yeah, Fred Schiemann, was within 10 feet of where I was  
13 standing, but he was in front of panel four.

14  
15 HUNTER: Who was with him or do you recall?

16  
17 MILLER: There was some Control Room operators with him, and the shift  
18 supervisor was with him, most of the time, or in the immediate area.

19  
20 HUNTER: Did you and Fred talk about the incident at all?

21  
22 MILLER: I just asked him what different system parameters were at  
23 certain times?  
24  
25

2001 323

1 HUNTER: Did you learn anything from that or did you try to find out  
2 what was going on?

3  
4 MILLER: I was trying to find out what was going on, it was hard for  
5 me to know exactly what was going on. I didn't really know exactly  
6 what was going on. I had a pretty good general idea but not exactly  
7 the condition of all the systems.

8  
9 HUNTER: During that time frame you really didn't get involved in the  
10 event itself except for monitoring and providing information on the  
11 radiation monitors. Did you have any other assignment at that time?

12  
13 MILLER: No, I didn't get involved with any operations as far as plant  
14 conditions went.

15  
16 HUNTER: Any other assignments during that time?

17  
18 MILLER: Up until when? Right up until say when, noon?

19  
20 HUNTER: During the time you were involved in the radiation monitoring  
21 panels did you stay with those all the time.

22  
23 MILLER: I probably had other real minor jobs you know, giving messages  
24 to different people or different things like that. That was the main  
25 I mean function.

2001 324

1 HUNTER: Was there anyone with you? Or was it just you only?

2  
3 MILLER: There were some people who were working with the ECS Coordinator  
4 who also came back to the Radiation Monitor and looked at readings,  
5 and looking at trends on Radiation recorders.

6  
7 HUNTER: After you had completed that assignment what was your next  
8 assignment?

9  
10 MILLER: Well, let me see, it's hard for me to exactly reconstruct  
11 that day, because I was there from about twenty five after six in the  
12 morning until about twelve o'clock midnight that night. And its been  
13 almost a month now, as far as my next specific assignment.

14  
15 HUNTER: If you can't remember,

16  
17 MILLER: I can't

18  
19 HUNTER: Just a assignment you had that day.

20  
21 MILLER: O.K., well, later on that day in the early part of the afternoon  
22 I got enough of a turnover, that I took the duty shift foreman duty,  
23 but by this time things weren't really any more at all like they  
24 normally are. And as far as performing any of my normal duties, there  
25 weren't any.

2001 325

1 HUNTER: Who did you relieve?

2  
3 MILLER: I relieved Fred Schiman.

4  
5 HUNTER: Then what did you start, what was your function, knowing that  
6 it's not normal, what was your function then? What did you do?

7  
8 MILLER: Basically, I was served as mostly intermediate of messages,  
9 somebody would tell me they wanted to get certain information to  
10 somebody else or I'd receive phone calls. As far as actual plant  
11 operation I really wasn't involved too much. The shift supervisor was  
12 more directly involved with plant operation by this time.

13  
14 HUNTER: Who is your shift supervisor?

15  
16 MILLER: My normal shift supervisor is Greg Hitz.

17  
18 HUNTER: Who was the shift supervisor at that time?

19  
20 MILLER: Bill Zewe was still shift supervisor. He was there and Greg  
21 Hitz were there at the same time.

22  
23 HUNTER: OK, then as the normal functions of the shift foreman did you  
24 maintain, did they maintain you in the Control Room? Were you basically  
25 in the control room?

2001 326

1 MILLER: Yes, I was in the control room, all the time I was there.

2  
3 HUNTER: No secondary plant tours or anything? You stayed in the  
4 Control Room?

5  
6 MILLER: No, I didn't have time, it was awfully confusing that day.  
7 And there were probably fifty to sixty or even more people in the  
8 control room and to just maintain communications between the people  
9 who wanted to communicate was probably the biggest part of my job that  
10 day.

11  
12 HUNTER: Can you give us some idea of the when you came in that morning,  
13 how many people were there? Can you recall just a number?

14  
15 MILLER: When I came in there weren't really that many in the control  
16 room yet, maybe fifteen to twenty people and by seven o'clock, when  
17 site emergency was declared, it probably doubled or tripled that  
18 number.

19  
20 HUNTER: And where were these people located?

21  
22 MILLER: They were in the control room in the back part of the control  
23 room, and off to the sides.  
24  
25

2001 327

1 HUNTER: How was the noise level?

2  
3 MILLER: The noise level was high.

4  
5 HUNTER: It was high, ok. What about the, what about up near, near  
6 the control panels? How many people were there?

7  
8 MILLER: In the area normally, there is an area marked non essential  
9 personnel stay behind this line. Now the people who were on the other  
10 side of that line which normally there is only about three or four.  
11 There might have been at certain times six, seven, or eight.

12  
13 HUNTER: Ok, How does your, did you have any problem communicating at  
14 all because of the noise level?

15  
16 MILLER: Yes, that was a problem. There were that many people in  
17 there, just the general background noise was high.

18  
19 HUNTER: Ok,

20  
21 MILLER: And another thing I just remembered, for a time in the morning  
22 I don't remember specifically which time it was but we were required  
23 to wear face respirators in the control room, and that didn't help  
24 things as far as communications went.  
25

1 HUNTER: Ok, how long did you have the respirators on, do you have any  
2 idea?

3  
4 MILLER: I don't remember exactly, it must have been at least three  
5 hours two to three hours at least.

6  
7 HUNTER: And at that time you were, what were you still communications?

8  
9 MILLER: At that time I think I was still back in the radiation monitoring  
10 panel.

11  
12 HUNTER: And then you worked from noon till midnight?

13  
14 MILLER: I only left at about midnight.

15  
16 HUNTER: And during that time you were, any other assignments that  
17 would put you in, pump ... of the reactor coolant pumps, makeup system,  
18 anything you were directly involved in that we need to discuss with  
19 you.

20  
21 MILLER: Like I said I really wasn't involved with the operations end  
22 of it at that time because it was better to let the people who were on  
23 it to stay there because there wasn't enough time to stop and give a  
24 good complete turnover.  
25

1 HUNTER: You went off at midnight and come back the next day, to start  
2 again I presume.

3  
4 MILLER: Yes, I came in the next day, about seven-thirty in the morning.

5  
6 HUNTER: My part of the program, we're looking at the first like  
7 twenty hours, right now. We'll go the rest of the way later. There  
8 is so many things that happened, that we breaking it up. I want to go  
9 back now to can I assume that you were on the three to eleven shift,  
10 on the day shift the previous day?

11  
12 MILLER: No, see I was, that was on Wednesday, and the previous four  
13 days I had off, that was my long weekend, Saturday, Sunday, Monday,  
14 and Tuesday I was off, and the week before that I was down in Lynchburg,  
15 so I was away for ten or eleven days. That was my first day back at  
16 the plant after being away for about eleven days.

17  
18 HUNTER: Ok was the plant operating normally when you left?

19  
20 MILLER: Yes, when I left it was operating normally.

21  
22 HUNTER: Can you remember or recall any unusual conditions or what you  
23 would consider, I don't mean unusual or abnormal, just maintenance  
24 conditions that would exist when you left?  
25

2001 330



1 MILLER: When I left there were several minor problems, I don't remember  
2 any particular by outstanding problems when I left.

3  
4 HUNTER: Do you normally work in the demineralizer system quite a bit  
5 or does that foreman usually handle the secondary demineralizer system?

6  
7 MILLER: Normally he doesn't get real involved with it.

8  
9 HUNTER: They had some trouble with it, that night,

10  
11 MILLER: Yea

12  
13 HUNTER: And previous, have you had any trouble on your shifts?

14  
15 MILLER: Well, we were lucky, as far as the type of trouble they had  
16 that night, we never had that happen on our shift, where there was  
17 problems with the water getting into the air, and the valves not  
18 operating properly?

19  
20 HUNTER: Have you been involved in any unit trips before?

21  
22 MILLER: Yes.

23  
24 HUNTER: Number.  
25

2001 331

1 MILLER: At least two or three.

2  
3 HUNTER: Can you describe the trips you were involved in?

4  
5 MILLER: Well, the one trip we had resulted in an ES actuation, the RC  
6 pressure went below 1600 pounds, and we had the ES actuation, and that  
7 was the most involved trip I was ever involved in.

8  
9 HUNTER: What caused the trip and ES actuation?

10  
11 MILLER: I don't remember exactly.

12  
13 SHACKLETON: Mr. Miller, for those people who aren't familiar with the  
14 terminology in the nuclear industry, can you define the type of trip,  
15 what that means, those initials?

16  
17 MILLER: Ok, well, the trip I was talking about was a reactor trip,  
18 and following the reactor trip, reactor coolant pressure dropped to  
19 below approximately 1600 pounds and when that happens you get engineered  
20 safeguards system actuates, to get system pressure back up.

21  
22 SHACKLETON: Dorwin, what I'm after is, thank you very much, that  
23 explanation I know it will help, but what those letters mean? Reactor  
24 Coolant.  
25

2001 332

1 HUNTER: Ok, what about, you said three trips, can you recall any of  
2 the other two?

3  
4 MILLER: Ah ...

5  
6 HUNTER: That's ok.

7  
8 MILLER: I just can't recall exactly what caused the trips.

9  
10 HUNTER: When a trip usually occurs where would you be located? Is  
11 your normal station the control room, or would you be elsewhere?

12  
13 MILLER: When the trip that occurred that I just mentioned where, we  
14 had the engineered Safeguards actuation, I happened to be out in the  
15 secondary side of the plant at the time. And, it's hard to say. A lot  
16 of times the shift foreman is out in the plant taking tours, and  
17 something can happen when he's out.

18  
19 HUNTER: Certainly, as I understand you did not leave until midnight,  
20 the night of the incident, you left at midnight, and did you come back  
21 then for your normal seven to three shift that day?

22  
23 MILLER: I came in a little late, I got in about seven-thirty.

24  
25 2001 333

1 HUNTER: And, that's all the questions I have unless there is something  
2 you need to add or if you can think of an assignment you had that day  
3 that would be important to go through. We'll review the tape and I'll  
4 pick up the points for specific details but we will we may in fact ask  
5 to talk with you again, and if we do, then we'll make further arrangements.

6  
7 MILLER: Ok.

8  
9 SHACKLETON: There are no further comments, we will close this tape  
10 off, the time is now 4:16 p.m. April 22, 1979.  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
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2001 334