

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

1 In the Matter of:
2 IE TMI INVESTIGATION INTERVIEW
3 of Mr. Michael Buring
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9 Trailer #203
10 NRC Investigation Site
11 TMI Nuclear Power Plant
12 Middletown, Pennsylvania

13 _____
(Date of Interview)

14 June 27, 1979

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17 _____
(Tape Number(s))
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21 NRC PERSONNEL:

22 Mr. Robert Marsh
23 Mr. Thomas H. Essig
24
25

7908290024
[Signature]

894 021

1 MARSH: One thing, let me interject if I may. This is Marsh speaking. I
2 notice you look up when you mentioned the one abbreviation. For the ease
3 of transcription where we do talk about an acronym or an abbreviation, if
4 you would define it, I know both you and Tom are going to be deeply involved
5 in the abbreviations of your careers, but the people that have to type this
6 may not be knowledgeable so if you hear me interjecting, its just going to
7 be asking that, if you would define it, I would ask you to define any
8 acronyms or abbreviations that you use. Excuse me, go ahead, Tom.

9
10 ESSIG: Mike, would you state for the record the name of your, you indicated
11 that your function as a corporate health physicist presently, would you
12 state for the record the name of your present immediate supervisor and his
13 title?

14
15 BURING: Present supervisor is James Mudge, Dr. James Mudge, section head
16 of the Radiation Safety and Environmental Engineering Section.

17
18 MARSH: Could you spell Mudge?

19
20 BURING: MUDGE.

21
22 ESSIG: And his title again was section head of the . . .

23
24 BURING: Radiation Safety and Environmental Engineering.
25

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1 ESSIG: Ok. What I'd like to do now, Mike, is to. . .

2
3 MARSH: Feel free, if there's anything you want to say, don't worry about
4 it.

5
6 BURING: The thing is, that I had already resigned from Met Ed prior to
7 this incident, and I'm currently employed by the Pennsylvania Power and
8 Light and I'm here alone. So my immediate supervisor is not really James
9 Mudge, its Met Ed, I mean its, PP and L.

10
11 MARSH: Ok.

12
13 BURING: All of the time prior to and including up to the sixteenth, that's
14 true.

15
16 ESSIG: The sixteenth of April?

17
18 MARSH: As you see fit anytime you want to make an a side comment feel free
19 to speak freely and we can put any footnote you need or any explanation you
20 feel is necessary. Just go ahead and call it out. There's no problems
21 involved at all. Let me see your mike just a second.

22
23 MARSH: I have the mike facing the wrong way and I don't know if I was
24 picked up or not but I just wanted to indicate that if Mike felt he wanted
25 to put any notes of explanation or an aside on the record, to feel free to

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1 speak. Because of only two microphones I appear to be talking to the back
2 of one of them. Some of my comments may not be coming out clearly.

3
4 ESSIG: Mike, would you describe first of all I'll ask you a rather general
5 question and then I have some, a few specific follow-on questions to that.
6 But I'd like you to start off by stating what your involvement in the
7 assessment of the TMI event was during the first three days following the
8 event, that is, Wednesday, Thursday, and Friday, March 28th, 29th, and
9 30th, and would you please state whether you were here on site or were you
10 at the corporate office? What just in general, was the nature of the work
11 that you were doing at that particular time?

12
13 BURING: You said involvement in the assessment. I don't think that we've
14 done an assessment yet, have we? or do you guess

15
16 ESSIG: Well, the assessment to the extent that you were, assessments have
17 gone on during the first three days of the event, I'll give you an example
18 what I mean by an assessment. Let's say we have wind direction and speed
19 data or release data which caused the types of surveys that were making to
20 immediately emphasize something else. So that's the, I mean that type of
21 evaluation, just sort of in front of your nose type evaluation, not an
22 overall evaluation where you back away completely and determine the say,
23 the in detail the offsite dose consequences, that type thing. I'm not
24 interested in that kind of detail right now, and I recognize its probably
25 not been done and I think there probably been a couple attempts made to do

1 that, but I think, what I'd like to know is just sort of with all the all
2 the little details that were going on, what was your involvement there,
3 during the first three days?

4
5 BURING: I arrived at Met Ed that morning approximately quarter til eight
6 and had been scheduled to come to TMI for a meeting of, and that's my first
7 knowledge of the incident and so from that time on the my daylight hours
8 were spent in assessing the needs of the station in several areas and
9 attempting to obtain those needs. The majority of it was in radiological
10 waste or rad waste, such as tankage, trucks, shipping shields, stuff of
11 that nature. Secondly, I was turning on consultants, which we had existing,
12 contract's list such as Pickard and Lowe for radiological data Porter and
13 Gertz for radiological environmental data, Radiation Management Corporation
14 for whole body counting, and environmental sample analysis. The mobile
15 analysis laboratory-Teledyne Isotopes for sample analysis, radiological and
16 environmental sample analysis. Eberline Instrument Company for survey
17 instrumentation..

18
19 ESSIG: Now when you say Eberline Instrument Company for survey instru-
20 mentation, you mean, advice with respect to the use and limitations of the
21 present Eberline survey instrumentation that you had. .

22
23 BURING: That as well as ordering additional. .

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1 ESSIG: Ordering additional, ok.

2
3 BURING: Then supervision of my offsite environmental sample collector in
4 the types and frequency, of radiological and environmental samples to be
5 collected and shipped and methods for getting them to the respective labora-
6 tories for analysis. Evenings were spent on the phone with the media
7 answering their questions, interviews, etc.

8
9 Nights after that were spent brainstorming in the corporate offices there
10 as to possible needs of the station and what could be procured from where,
11 how to go about getting estimates of the overall needs. That was for
12 Wednesday, Thursday, and Friday. Would you care for any more particulars?

13
14 ESSIG: One question, you indicated early that you are now and were at the
15 time as of after April the 16th employed by Pennsylvania Power and Light.
16 Would you state what relationship, if any, PP&L has to Met Ed?

17
18 BURING: They are completely separate entities. There is no relationship.

19
20 ESSIG: Are they related through GPU at all?

21
22 BURING: General Public Utilities has three subsidiaries, Metropolitan
23 Edison Company, Penn Electric and Jersey Central. Pennsylvania Power and
24 Light is a completely separate utility.

25
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1 ESSIG: Ok, so then you were. .

2
3 BURING: As far as geography is concerned its the next utility north in
4 Pennsylvania.

5
6 ESSIG: Then you're involvement then was completely as a consultant without,
7 not even you were not even involved through the GPU holding company, in
8 this case?

9
10 BURING: No I was still employed by Met Ed at this time. I had resigned
11 prior to the incident. I had not left.

12
13 ESSIG: Ok. Ok, I understand. .

14
15 BURING: The resignation was not effective until April 16th.

16
17 ESSIG: Ok. I failed to pick that up earlier. So you were still employed
18 by Met Ed but you had given them a 30. .

19
20 BURING: 3 week notice. Ok.

21
22
23 BURING: It was supposed to have been effective the 13th of April but it
24 was subsequently changed to the 16th because the 13th was Good Friday and
25 the 15th was Easter Sunday so we made it effective on the 16th to cover me
for the weekend.

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1 ESSIG: Ok. You made it effective on the 16th . . .

2
3 BURING: April.

4
5 ESSIG: Ok, let me come back a point, just a bit then. I felt that you had
6 said you you had given notice on that date.

7
8 BURING: No, I had resigned, submitted my resignation about March 20th, to
9 be effective April the 13th.

10
11 ESSIG: Ok.Ok. My problem is I just lost track of one month. That's all.
12 Alright.

13
14 BURING: It's now May.

15
16 ESSIG: Ok. As long as we're on the subject of your resignation, was it
17 related to the company's handling of environmental affairs, at that point,
18 the health physics program, did you have some disagreements with company
19 management or did the grass look greener over on the PPL side of the fence?

20
21 BURING: I've never had a problem with Metropolitan Edison company and I'm
22 leaving them to go to a better position, for a supervisory position, more
23 money a good job, doing the radiological and directing the radiological and
24 non-radiological environmental monitoring for their Susquehanna Steam
25 Electric station at Berwick.

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1 ESSIG: Ok.

2
3 BURING: I have no bad things to say about Met Ed.

4
5 ESSIG: Ok. During your involvement in the first three days following the
6 event, were you taking directions at that time from Dr. James Mudge that
7 you mentioned earlier?

8
9 BURING: It was more of a case of my supplying advice to him and him carrying
10 it out, I believe. He was my immediate supervisor, though.

11
12 ESSIG: Ok, but did he, did he, did he ask you to be in charge of the
13 specific areas that you mentioned earlier, assessing the need of the station
14 in the way of radwaste, bringing the consultants onboard, had he asked you
15 to do that or is that something you . .

16
17 BURING: That's something I did on my own.

18
19 ESSIG: I see.

20
21 BURING: I assumed I knew the immediate needs and went looking for those
22 and then contacted the station personnel and to determine if I had forgotten
23 anything or there was something that they needed more of or things like
24 that.

25
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1 ESSIG: Ok.

2
3 BURING: And then went ahead and procured those.

4
5 ESSIG: Ok. I guess the next area I'd like to look into, is to, could you
6 describe the or speak to the extent to which you were involved in the
7 decision making process relative to when to collect the routine enviromental
8 samples and what samples to collect following the event?

9
10 BURING: I was deeply involved in that I had been the director of the
11 radiological and environmental montoring program almost since my arrival at
12 Met Ed in 73. So I was very familiar with all of the existing samples
13 location, and frequencies, and so it became a job of increasing the frequency
14 of analysis rather than, I mean frequency sampling rather than setting up
15 more sampling locations or that, and the logistics involved in much more
16 frequent sample.

17
18 ESSIG: Ok.

19
20 BURING: Yes, I made those decisions as to which samples should be collected,
21 how frequently, and,

22
23 ESSIG: What were some of the factors that were considered that as you made
24 the decisions as to what samples ought to be collected when, and what
25 frequency, what were some of the factors that you considered in arriving at
that decision?

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1 BURING: Discussions that the station personnel as to whether we were, in
2 fact, releasing noble gases or iodine, and whether there was a large potential
3 for finding anything in the environmental samples. Was there a liquid
4 release, for instance, should I be collecting more surface water samples,
5 was there gas or iodine release, should I be collecting the air particulate
6 or the air iodine samples more often.

7
8 ESSIG: And were these discussions held then basically on the 28th, for the
9 most part?

10
11 BURING: Yes, sir. And partly I was discussing it with the station personnel
12 as to what was happening in the station.

13
14 ESSIG: What were they telling you was happening as far as releases were
15 concerned? Things that you were then subsequently factoring into your
16 thinking with regard to what types of samples you needed to collect?

17
18 BURING: Wednesday and Thursday, the best of my recollection, releases were
19 minimal and we then collected, offsite TLDs Friday, the 29th. .

20
21 ESSIG: That was Thursday. The 29th was a Thursday.

22
23 BURING: We collected the environmental TLDs on Thursday, the air particulates,
24 the air iodines, surface waters and milks. I believe were all collected
25 that same day, Thursday, and then with reaching frequency after that it

1 became, it was daily for milk samples, every three days for TLDs. But I
2 also enlisted the services of our normal consultant in radiological environ-
3 mental monitoring which is Porter-Gertz Associates.

4
5 ESSIG: And what advice did they give you specifically in this regard, for
6 example with respect to the sample frequency, the collecting the TLDs every
7 three days and daily milk samples and I believe you said, air iodines were
8 every three days, did they have any input to that?

9
10 BURING Yes, that's what I decided based on my discussions with them,
11 essentially.

12
13 ESSIG: Ok.

14
15 BURING: The station and the consultant. We've been following that ever
16 since.

17
18 ESSIG: Ok, is it your position that the decision that was made with respect
19 to when the samples were, when the samples were pulled and what particular
20 samples were collected and the subsequent frequency following the event,
21 that was your decision then based on based on the recommendation of your
22 consultants as well as your own knowledge?

23
24 BURING: Plus what information I had from the station.
25

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1 ESSIG: And were you relatively free to, once you had the advice of the
2 station people, the consultants, etc., and come to a decision. Were you
3 relatively free to go ahead and implement that decision. Did you have to
4 first check with your immediate supervisor, Dr. Mudge, and bounce this off
5 him and see if he agreed with this particular collection frequency?

6
7 BURING: No, I essentially told him that I felt this is what needed to be
8 done and that's why it needed to be done and this is the way I intend to
9 handle it unless he had some concern.

10
11 ESSIG: Ok. Did collection frequency, for example, for TLDs every three
12 days, what was the primary basis for that determining every three
13 days?

14
15 BURING: I was thinking that the TLD normally reads somewhere in the range
16 of 7 to 10 millirems per month. Divide 10 by 30, 10 millirems per month by
17 30 days, and you're down in the .3 millirem range and so you're down in the
18 minimum sensitivity of the TLDs essentially. I also thought that we would be
19 very interested in the total exposure on the fence line, out in the environ-
20 ment, as well as the change in exposure rates. So those are some of the
21 things I was considering. I wanted to be able to say when I changed a TLD
22 this is an increase, a statistical increase above normal levels, and secondly,
23 what is the total integrated exposure.

24
25 894 033

1 ESSIG: Ok.

2
3 BURING: So one of the things I did was on the 31st I guess, Saturday. .

4
5 ESSIG: Yes.

6
7 BURING: We put out duplicates of TLDs, no, it was Sunday afternoon that we
8 put out a second set which would remain there for the remainder of the
9 quarter. Our normal frequency of change for TLDs is quarterly. So I had a
10 set that I could change at any frequency plus a set that remained in each
11 location till the remainder of the quarter.

12
13 ESSIG: Ok. Had you considered during the during the your sitting down and
14 analyzing the input from your consultants and your plant people that it
15 might be worthwhile to put place TLDs out at locations where you presently
16 didn't have them, I guess what I'm getting at is, specifically is, you have
17 an emergency plan implementing procedure and I'm not sure to what extent
18 your normally involved in, in the actual implementation of those procedures,
19 but there's one procedure No. 1670.6 having to do with offsite surveys?

20
21 MARSH: Before you answer that question we're running out of time on this
22 tape. I'd like to take a break and turn it over. Time is now 5:50 p.m. I'm
23 going to turn the tape over.

24 894 034

25

1 MARSH: Ok. Meter reading is 462. Time is 5:51 and I'll turn the microphone
2 back over to you, Tom.

3
4 ESSIG: Ok. Mike, what I was specifically interested in is, the procedure
5 that I mentioned 1670.6, one of the items in there that it speaks to, and
6 this is basically a procedure for offsite surveys and it speaks to survey,
7 types of surveys that might be considered during an emergency of this type,
8 and one of the surveys or measurements that it speaks to is the, or that
9 ought to be considered is the establishment of TLDs at maybe some, either
10 routine locations, or maybe even some non-routine locations, and then
11 changing these out every on a very frequent basis like maybe every four
12 hours. And I guess my question is..

13
14 BURING: I don't recall that in the procedure. .

15
16 ESSIG: Ok. Well, it is there and it doesn't say the procedure doesn't say
17 that you have to do it, but it just sort of there, one of those things that
18 ought to be considered and I just wondered if you were involved with any of
19 the plant people in coming up with a decision whether to put additional
20 TLDs out or don't put them out or did that not even enter into the thinking
21 at that point.

22
23 BURING: I don't believe that was discussed.

24
25
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1 ESSIG: Ok.

2
3 BURING: Either among myself in corporate offices or the station personnel.
4 I believe the agreement that I had with the station personnel was that I
5 would take care of the offsite environmental monitoring. .

6
7 ESSIG: The routine program?

8
9 BURING: Exclusive of the offsite monitoring teams which are conducted from
10 the station.

11
12 ESSIG: Ok. Ok. So then to summarize then what that routine program, what
13 happened as far as the routine program as I understand it is that on the
14 29th the samples, a routine sample collection was made or a special sample
15 collection was made of the routine samples that you routinely collect, a
16 special collection was made on the 29th.

17
18 BURING: Which had been scheduled for the 31st, Saturday.

19
20 ESSIG: Ok. So in essence you were doing it two days early.

21
22 BURING: Correct.

23
24 ESSIG: And then you went into an augmented sample collection frequency
25 which consisted of daily milk sample collection, every three day TLD and

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1 air samples and what was the augmented water sample frequency or was there,
2 did that remain the same?

3
4 BURING: Surface water samples became daily samples after that.

5
6 ESSIG: They became daily. Ok, and these would ordinarily be a weekly
7 composite or something on that order, or monthly composite?

8
9 BURING: Compositors installed downstream which are continuous compositors
10 twenty minute frequency.

11
12 ESSIG: Ok, but then these are, these are collected then every. .

13
14 BURING: Collected weekly and analyzed monthly.

15
16 ESSIG: Ok. Collected weekly, analyzed monthly. Ok. I guess I'd like to
17 come back to a question that we had just, that we're touching on a few
18 minutes ago, and that was that you indicated that you were, one of your
19 duties in the corporate office, was to sort of get a number of the consultants
20 in motion that you ordinarily have, ordinarily retain as consultants. Did
21 you, you mentioned ESSIG: Porter-Gertz by name, so I assume you interfaced
22 with both Sid Porter and Steve Gertz and you indicated I believe that they
23 had, you consulted with them as far as any recommendations that they might
24 have, for the conduct of the, any special monitoring that might be required
25 following the event?

1 BURING That's true.

2
3 ESSIG: Ok, did you also, you mentioned Pickard-Lowe and Associates. What
4 type of dealing did you have with them, I understand, they are Met Ed
5 meteorological contractors is that correct?

6
7 BURING: That is true. We have a meteorological facility tower and a data
8 transmitting center here, the north weather station. The data is
9 transmitted to Digital Graphics and analyzed by Pickett and Lowe.

10
11 ESSIG: Ok, now when you say .after computer reduction. .when you say
12 transmitted to Digital Graphics, is that the name of a company?

13
14 BURING: Yes, I'm not sure what their connection with Pickard and Lowe is,
15 they are the computer center data reduction center.

16
17 ESSIG: Ok, where are they located?

18
19 BURING: I'm not sure.

20
21 ESSIG: Ok, but there is, its transmitted by telephone line from the Met
22 Tower to the Digital Graphics.

23
24 BURING: Digital Graphics. And, after the output after reduction its analyzed
25 and transmitted to us by mail or telecopy from Pickard and Lowe. The first

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thing I did in the meteorological area was, Metropolitan Edison Company has a meteorologist, Dave Carl. .

ESSIG: Could you spell his name?

BURING: CARL, who was in charge of the contract, the administration of the contract with Pickard and Lowe, and the meteorological data handling.

ESSIG: Is he in your, Mr. Carl, is he in your corporate office?

BURING: He's part of the Radiation Safety and Environmental Engineering Group. He also works in the non-radiological air monitoring area. I instructed him to make sure that Pickard and Lowe was aware of the incident and that they were monitoring the meteorological conditions and providing us with X/Qs, the weather forecast, if possible.

MARSH: Can we define X/Q or least spell it out for the typist? Its a Greek letter.

BURING: Capital X, slash, capital Q, which is dispersion coefficient over distance.

ESSIG: Ok, so the meteorological data then, as I understand it is continuously transmitted to. .

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1 BURING: Its an hourly frequency that is . .

2
3 ESSIG: Hourly frequency . .

4
5 BURING: Its stored on Mag tape at the meteorological tower and then transmitted
6 hourly.

7
8 ESSIG: To Digital Graphics. .

9
10 BURING: to Digital Graphics. .

11
12 ESSIG: who processed the data and then in turn it goes to Pickard and Lowe.

13
14 BURING: Right.

15
16 ESSIG: Ok, and as the, this Dave Carl, does he routinely oversee the cali-
17 bration and maintenance of the Met Tower or does, is that pretty much left
18 up to Pickard and Lowe or. .

19
20 BURING: That is a function of Pickard and Lowe in conjunction with the
21 station personnel.

22
23 ESSIG: Ok.

24
25
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1 BURING: I'm not positive of this, but believe that the station personnel do
2 the routine checks and then Pickard and Lowe are brought in on a semiannual
3 frequency for complete calibrations.

4
5 ESSIG: Ok. The person that you contacted at Pickard and Lowe or persons,
6 was one of them Tom Potter?

7
8 BURING: Yes, sir. Tom Potter and Keith Woodward of Pickard and Lowe.

9
10 ESSIG: Ok, and had you asked them to start making, you indicated just a few
11 minutes ago about estimates of X/Q and so forth, had you also asked them to
12 start making estimates of offsite doses, did you ask them to get a hold of
13 the release data or?

14 BURING: Not at that time.

15
16 ESSIG: Not at that time.

17
18 BURING: Strictly turned them on as for creating ...

19
20 ESSIG: Just making sure you had X/Q values?

21
22 BURING: Right. And the initial weather conditions at that time were pretty
23 stable with minimal wind, very little wind speed and variable direction and
24 its kind of difficult.

25
894 041

1 ESSIG: Right. Did you have any dealings with a Mr. Graber from Electric
2 Boat?

3
4 BURING: Not until I arrived on the site on Saturday noon, or two o'clock I
5 guess.

6
7 ESSIG: Ok, and what. .

8
9 BURING: and I'm not positive of the time I actually met him.

10
11 ESSIG: Ok, and what were your relationships with him?

12
13 BURING: I was told after I arrived on site, I'm not positive, that he would
14 be my supervisor.

15
16 ESSIG: Ok, and you were told by whom?

17
18 BURING: By him.

19
20 ESSIG: Oh, by him. I see. Ok. Do you know what his first name is?

21
22 BURING: Bill.

23
24 ESSIG: Bill. Ok. So then any recommendations that you might have, that you
25 did make then with regard to the the direction of the environmental monitoring
program were made then, through, by checking with Graber first?

1 BURING: No sir. I did not consult with him at all on environmental monitors.

2
3 ESSIG: Ok. Even though he told you that as of the time you reported on
4 site you were in effect working for him?

5
6 BURING: My function on site was supposed to have been strictly personnel
7 dosimetry after I arrived Saturday afternoon.

8
9 ESSIG: I see.

10
11 BURING: However, I kept involved to a large extent in the radiological
12 environmental monitoring.

13
14 ESSIG: Ok.

15
16 BURING: But as far as Mr. Graber is concerned it was strictly personnel
17 dosimetry.

18
19 ESSIG: Ok. I think that we probably have covered most of the, in fact all
20 of the areas that I had some notes made for myself here, and I think we've
21 pretty covered everything that I wanted to cover with you. How much, do
22 you know how much longer you're going to continue to be onsite, now that,
23 you're here as a consultant now, so?

24 894 043

25

1 BURING: Not as a consultant, as a loan.

2
3 ESSIG: As a loan? Ok.

4
5 BURING: From Pennsylvania Power and Light.

6
7 ESSIG: Ok.

8
9 BURING: At the request of Metropolitan Edison Company.

10
11 ESSIG: Will you be around?

12
13 BURING: I will be here...currently planned till the 15th of May, and
14 perhaps on a part-time basis after that.

15
16 ESSIG: Ok, one of the reasons for asking that was since you indicated that
17 you had been involved to some extent in the solid radwaste aspects, there
18 may be one of the, one of the other individuals on the, our investigation
19 team, that might wish to ask you a few questions along that line. And so, I
20 don't really know, I didn't realize that you had been involved in the
21 radwaste, otherwise I might have, had I known that, I might have just asked
22 him if he had any questions for you and I was just going ahead and ask them
23 on his behalf, but I guess we'll just have to leave that one open for the
24 moment and I'll just mention this to him, and see if there is something
25 we'll maybe just contact you again or if in my further review of what went

1 on during the first three days if there's some other questions that come up
2 as a result of either what you've told me here or some question I might
3 have on the existing or the program that was in effect at the time. I
4 haven't had the foresight to ask you here may have to get back together
5 again. I think that's about all I have for Mr. Buring.

6
7 MARSH: Ok. Thank you. Mike, before we wrap up, this is Marsh speaking
8 again. As well as us asking you questions, before we finish up with the
9 tape, if you got anything that you wanted to talk about or anything that
10 you want to discuss feel free to bring it out, make a matter of record, got
11 any feelings that we haven't given you an opportunity to express, feel free
12 to have your say.

13
14 BURING: I would like to state I felt that the radiological and environmental
15 monitoring program that we had set up in operating, in my opinion turned
16 out to be a very effective accident monitoring program, also. The locations
17 of the air samples, milk samples, water samples, TLDs, thermoluminescent
18 dosimeters for integrated exposures, I think the locations were well chosen.
19 I think the results we have gotten from our consultants were both timely
20 and accurate in 99% of the cases. I think I'm impressed with the monitoring
21 that we accomplished and the results that we got and the speed of the
22 analysis. I think that we have a very good picture of what was discharged
23 from the station and arrived in the environment and what the offsite effect
24 was, I guess is what I'm trying to say.
25

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1 MARSH: Monday morning quarterbacking is always fine, but looking back from
2 this point now if you were able to make changes before this thing had
3 occurred what improvements would you put in? What benefits have we derived
4 from this as far as being able to improve our position for the future?

5
6 BURING: That's what I was trying to address in my initial statement, but I
7 think we did a pretty good job in planning and preparation.

8
9 MARSH: Is there any, still even withoutstanding is there any additional
10 lessons that you did pick up as we went along? Are there additional improve-
11 ments that could be made that you found as a result of it? If any come to
12 mind.

13
14 BURING: I'm still considering that question and have been for the past
15 month. I don't have any that I could make right now.

16
17 MARSH: Ok. Fine.

18
19 ESSIG: Mike, there is one area which I would like to explore just a little
20 bit. Thought occurred to me is as we're going along here with your last
21 question with regard to the offsite surveys that were made by others following
22 the event, were you, when you were asked to get a hold of consultants, you
23 were not asked you just took it upon yourself to get ahold of consultants
24 on the 28th, were those contacts limited to consultants that you routinely
25 employ or had, were you involved with a a contact at DOE for radiological
assistance that type of thing?

1 BURING: No, I did not contact any other federal agencies or state agencies.

2
3 ESSIG: Ok, so these were just consultants that you. . .

4
5 BURING: These were consultants that I normally did business with or that I
6 knew were available or had available things that we might need, for instance,
7 I contacted Science Applications, Incorporated for their mobile laboratory.
8 Let's see, somebody else.

9
10 ESSIG: You indicated you contacted RMC for their laboratory. When you
11 contacted Eberline you indicated earlier that you had asked them currently
12 if they had as I recall, you had said you were inquiring if they had additional
13 instruments that. .

14 BURING: Strictly in-plant survey instruments.

15
16 ESSIG: Ok. In-plant survey instruments.

17
18 ESSIG: Did you make a request at that time for to have them send some out
19 or. .

20
21 BURING: ..of the Teletector type

22
23 BURING: I asked Eberline to send me all the instruments they had.
24
25

894 047

1 ESSIG: All of the instruments they had?

2
3 BURING: Yes.

4
5 ESSIG: Did you have any idea how much you were ordering?

6
7 BURING: Yes.

8
9 ESSIG: How many?

10
11 BURING: Well, they were in the 10 to 20 range of each type of instrument.

12
13 ESSIG: I see.

14
15 BURING: available.

16
17 ESSIG: I see.

18
19 BURING: I knew approximately how much money and much instruments.

20
21 ESSIG: Ok.

22
23 MARSH: May I ask when this was done? This is Marsh speaking.

24
25 894 048

1 BURING: I'm sorry I can't answer that.

2
3 MARSH: I mean first day, second day, do you have any feel for it at all?

4
5 BURING: I believe it was into the late part of the first day or early second
6 day.

7
8 ESSIG: What kind of, when you were talking with Eberline, and I think you
9 indicated earlier, that one of the reasons for contacting was not only to
10 get the,... to order some instruments from them, but also to have them give
11 you any advice with regard to limitations of the,..on the use of instruments
12 used during the offsite surveys.

13
14 BURING: Not true. You said that, I didn't it.

15
16 ESSIG: Ok. I was reading something into what you said then. Your contact
17 with Eberline was strictly to order more instruments and not to ask them
18 about what special precautions or limitations ought to be put into effect
19 for measuring those 81 Kev gamma.

20
21 BURING: The only specifications I made was that when the instruments were
22 shipped to us that they had certifications with them of calibration.

23
24 ESSIG: Ok.

25
894 049

1 BURING: Because I assumed that our onsite personnel would not have time to
2 perform complete the calibration and that Eberline Instrument people had
3 the people and the time to do it.

4
5 ESSIG: Ok. Well, I think once again thats, I think includes all the questions
6 I had for you, Mike, and I appreciate time you've taken to come over and
7 help us out with the investigation and certainly consider your input as
8 valuable.

9
10 BURING: Thank you, sir.

11
12 MARSH: Time is now 6:14 p.m. and we are going to terminate the tape at this
13 time and Mike I'll indicate if you have a minute or two I'll take this
14 cassette out, duplicate it, give you a copy right at this time.

15
16 BURING: Thank you.

17
18 MARSH: Alright. Time is 6:14. Reading is 820 on the meter tape recorder,
19 and I am terminating at this time.

20
21 894 050
22
23
24
25