

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

1 In the Matter of:

2 IE TMI INVESTIGATION INTERVIEW

3 of David F. Limroth, Superintendent, Administration
4 and Technical Support

5
6
7
8
9 Trailer #203
10 NRC Investigation Site
11 TMI Nuclear Power Plant
12 Middletown, Pennsylvania

13 May 16, 1979
14 (Date of Interview)

15 July 18, 1979
16 (Date Transcript Typed)

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18 (Tape Number(s))

19
20
21 NRC PERSONNEL:
22 Gregory P. Yuhas
23 Mark E. Resner

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25 7908280766

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1 RESNER: The following is an interview of Mr. David F. Limroth.
2 Mr. Limroth is employed with the Metropolitan Edison Company, at the
3 Three Mile Island Facility. His official job title is Superintendent,
4 Administration and Technical Support. The present time is 4:11 p.m.
5 eastern daylight time and today's date is May 16, 1979. This interview
6 is being conducted in trailer 203 which is located just outside the
7 south gate to the Three Mile Island Facility. Individuals present for
8 this interview is Mr. Gregory P. Yuhas. Mr. Yuhas is employed with
9 the Nuclear Regulatory Commission, Region I. He is a Radiation Specialist.
10 Moderating this interview is Mark E. Resner, and I am an investigator
11 with the Office of Inspector and Auditor, Headquarters U. S. Nuclear
12 Regulatory Commission. Prior to taping this interview, Mr. Limroth
13 was given a two page document which advised him of the purpose, scope
14 and authority with which the Nuclear Regulatory Commission has been
15 granted to conduct this investigation. In addition, it apprised him
16 that he is entitled to a representative of his choice should he desire
17 one and that he is in no way compelled to talk to us should he not
18 wish to. On the second page of this document Mr. Limroth has answered
19 three questions which I will state for the record. Number 1: Do you
20 understand the above? Mr. Limroth has checked yes. Is that correct
21 Mr. Limroth?

22
23 LIMROTH: That's right.
24
25

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1 RESNER: Question 2: Do we have your permission to tape the interview?
2 Mr. Limroth has checked yes. Is that correct Mr. Limroth?
3

4 LIMROTH: Yes that is.
5

6 RESNER: Question Number 3 do you want a copy of the tape? Mr. Limroth
7 has checked yes. Is that correct Mr. Limroth?
8

9 LIMROTH: Yes I would.
10

11 RESNER: Okay we will provide you with a copy of the tape. At this
12 time I will ask Mr. Limroth if he would please give us a brief synopsis
13 of his educational and job experience in the nuclear field.
14

15 LIMROTH: I have a degree in a Bachelor's of Mechanical Engineering
16 from Villanova University. I graduated in 1954, following which I
17 spent twenty-four years in the navy. From 1960, January of 1960,
18 through June or September of 1977, I was directly associated with the
19 operations maintenance and supervision of the, in the naval reactors
20 program, with the navy, in nuclear submarines.
21

22 YUHAS: Thank you Mr. Limroth. Did you complete the entire naval
23 reactors training program, by this I mean nuclear power school, qualifi-
24 cation of prototype, and then assignment as either Engineering Officer
25 or EOW of the chain of command?

1 LIMROTH: Yes and in addition to that I, in 1967, I spent three months
2 with the Director of Naval Reactors and the Director of Division Naval
3 Reactors, going through the perspective commanding officers course and
4 following that with five and a half years in command of nuclear sub-
5 marines.

6
7 YUHAS: Mr. Limroth, when did you join Metropolitan Edison?
8

9 LIMROTH: On the 18th of September 1978.
10

11 YUHAS: When you accepted work with Metropolitan Edison was it in this
12 position?
13

14 LIMROTH: Yes it was.
15

16 YUHAS: Okay. At what point did you assume direct responsibility or
17 management authority over the Radiation Protection and Chemistry
18 Department?
19

20 LIMROTH: It was a gradual movement into that area. Really the first
21 eight weeks with Metropolitan Edison was spent in training, plant
22 familiarization, and until about the end of February I was primarily
23 involved with the administration end of my job and was just then
24 starting to pick up the reigns on the radiation protection and the
25 technical support end of the job.

1 YUHAS: So then we can say that back to March 1, 1979 you assumed
2 direct responsibility?

3
4 LIMROTH: Yes.

5
6 YUHAS: For the Radiation Protection Department?

7
8 LIMROTH: Yes.

9
10 YUHAS: Can you describe the organizational responsibility in both
11 directions, in other words who reports directly to you or who do you
12 report directly to and who reports directly to you?

13
14 LIMROTH: I report directly to the Station Manager, Gary Miller, and
15 reporting to me in the Radiation Protection area is Dick Dubiel who is
16 Supervisor of Radiation Protection and Chemistry.

17
18 YUHAS: Can you describe to us basically the scope of responsibility
19 of that job, in other words are you coordinating a resolution of
20 technical matters primarily or are you concerned with personnel matters
21 or both or can you enlighten me as to the job description?

22
23 LIMROTH: All of the above. And I would be glad to provide you with a
24 copy of the position description which would probably summarize it
25 better than cover all the aspects of the job rather than my trying to
elaborate on it.

1 YUHAS: We'd be happy to have that, a copy of that.

2
3 LIMROTH: I'll bring one down this afternoon.

4
5 YUHAS: Thank you. At this point I'd like you to go through your
6 involvement from the time of how you were informed of the incident on
7 March 28th. When you came in where did you go to, what responsibilities
8 did you accept, and we're interested in the first three days up until
9 midnight of the 30th, Friday the 30th.

10
11 LIMROTH: My first indication of a problem here was when I got to work
12 about 6:15, on the morning of the 28th and found the gates closed,
13 went up to the Observation Center and got a briefing from Pete Velez
14 who is a HP Foreman who was in communication by radio with the Emergency
15 Control Center in Unit 1 and he give me a quick briefing on what had
16 occurred. At that point no more people were being let on the island
17 and I was requested to remain at the Observation Center and take
18 charge so to speak of the efforts there and the coordination of the
19 off-site survey teams and the...we had a couple of hundred employees
20 up there...just to get them organized and really that took care of
21 just about all of that morning and into the afternoon was the supervision
22 of the efforts coming out of there and really for the...that was my
23 involvement really for about the next two days was getting the opera-
24 tions center set up up there the communications established with the
25 island so they could have the plots coordinating the movement of

1 people the sampling effort off-site, we had huge numbers of people
2 coming in at that point in time, trying to get them into the right
3 place to get to work on the problem. I was really assisting Jack Herbein
4 primarily during that period. And it wasn't with the exception of a
5 couple of trips down there more than four per day for specific jobs.
6 I can't remember what they were right now. I didn't really get down
7 to the island on a sort of a permanent basis until about it was either
8 Saturday or Sunday following the accident.

9
10 YUHAS: Okay. Let's go back and I'll try to prod you a little bit to
11 get some more specific information. How firm are you on 0615 time?
12

13 LIMROTH: That's firm. That's what time I got in here.
14

15 YUHAS: Okay and that would have been at the north gate?
16

17 LIMROTH: Yes.
18

19 YUHAS: Okay. Did you stop your vehicle at the gate and ask the
20 guards why the gate was closed?
21

22 LIMROTH: Yes I did and they said they didn't know...they couldn't
23 tell me why they were closed and they were just instructed to direct
24 everybody to the Observation Center.
25

1 YUHAS: The guard did not specifically tell you that a site emergency
2 had been declared at that point?
3

4 LIMROTH: No he did not.
5

6 YUHAS: In your eight weeks of training can you describe the training
7 that you were given in the Three Mile Island Emergency Plan?
8

9 LIMROTH: Yes. It was a...well it was just...that was one of the
10 required reading assignments for the...there was the emergency plan
11 along with many other procedures and documents.
12

13 YUHAS: Essentially you were just told that's one of the required
14 readings?
15

16 LIMROTH: Yes.
17

18 YUHAS: Okay. How did you perceive your responsibility in the emergency
19 plan?
20

21 LIMROTH: Well I don't think it really crossed my mind. I knew the...what
22 had to be done in the emergency plan and the...my communications with
23 the control room... Unit 1's control room indicated that was that it
24 had been established down there as far as the tracking of off-site
25 releases, the calculation of dose rates and so on, and that the biggest

1 problem was getting the people moving in the right direction outside
2 making sure that the teams were properly equipped with the sampling
3 equipment, the survey instruments, and that they were getting to where
4 they should be and that we did have significant communications diffi-
5 culties in there...radio communications difficulties, in there, between
6 several of the vehicles and the site itself. So we were setting up to
7 assure that the data got relayed...we were functioning largely as a
8 relay station insuring that the correct data was relayed back and
9 forth. That we were getting it logged there so that, you know, we
10 knew that we had to reconstruct this item so we were keeping some
11 incredible records there.

12
13 YUHAS: Had you participated in a site emergency drill either here at
14 Three Mile Island or any other commercial nuclear facility?

15
16 LIMROTH: None no I have not.

17
18 YUHAS: Had you been provided any formal classroom training in terms
19 of the emergency plan?

20
21 LIMROTH: Nothing other than...than the standard RWP training which...
22 no that did not cover the...well, it just covered the broad emergency
23 plan that's all nothing in more depth than the standard RWP training.
24
25

1 YUHAS: At the conclusion of your eight weeks of training was there
2 either an oral or a written assessment of the training program, in
3 other words, a test or oral exam, something like that?
4

5 LIMROTH: There were two written exams given during the course of the
6 instruction but they were really oriented toward the hardware of the
7 plant rather than the operating procedures and so on.
8

9 YUHAS: So neither test covered questions from the emergency plan?
10

11 LIMROTH: That's correct.
12

13 YUHAS: Okay. When you arrived at the emergency center, or excuse me,
14 the Observation Center, Mr. Velez was already there apparently.
15

16 LIMROTH: Yes.
17

18 YUHAS: Did you recognize any of the other people that were there at
19 that time?
20

21 LIMROTH: Oh yah, there were all our team...they...all of the people
22 who were there were our TMI employees.
23

24 YUHAS: Okay. Can you relate to us the briefing that Pete Velez gave
25 you?

1 LIMROTH: He basically told me that there had been a reactor trip,
2 there had been a turbine trip and a reactor trip, that the reliefs...a
3 relief had opened and we had quite a bit of water in the building, in
4 the containment building we had had a release to the atmosphere, that
5 some liquid had gotten as far as the auxiliary building and that he
6 didn't have much more...he didn't give me much more detail than that
7 other than the fact that the plant was shutdown and we had had a
8 release and there wasn't too much information beyond that.
9

10 YUHAS: When you began to organize the Observation Center can you
11 describe the information that was available to you in the Observation
12 Center, specifically I am concerned about current copies of operating
13 procedures, system descriptions, current copies of the emergency plan,
14 that sort of information, communications with and with our hardware
15 lines to the control room, that kind of thing.
16

17 LIMROTH: We were...we didn't have much in the way of documentation
18 out there as far as procedures were concerned. I specifically recall
19 having to get a copy of the emergency plan from the plant out to the
20 Observation Center for reference. I don't remember any other procedures
21 being called for specifically although they did migrate out there and
22 by the time it was over we had...within probably the first twenty-four
23 hours...we had copies of the tech specs and the FSAR and the flow
24 prints as well as that as the emergency plan and some limited number
25 of procedures but I couldn't really tell you which procedures we had
out there.

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1 YUHAS: Early in the day did you become aware of the plant conditions,
2 specifically, the plant parameters that would have given you information
3 to base conclusions of your own by previous operating experience as to
4 what was happening in the primary systems?
5

6 LIMROTH: I really can't recall. It's been, you know, six weeks and
7 there has been a hell of a lot of information that has transpired in
8 between that area and during ...it was pretty sparse and we got a
9 second radio set up there within the first twenty-four hours it was
10 almost a day later. Telephone communications were extremely difficult.
11 We started out with one telephone and any kind of communications was
12 very difficult. The radio communications was the one net on which
13 we were talking to the control room and to all the off-site vehicles
14 and the helicopter or helicopters that were in use for surveying at
15 that time and plant specific parameters were not...if they were coming
16 up there I wasn't made aware of them until probably sometime on Friday.
17 I guess we got a status board established and we were getting some of
18 the plant parameters at that time.
19

20 YUHAS: Was there an operations oriented representative of management
21 in the Observation Center that morning?
22

23 LIMROTH: I think the first real operations oriented person that we
24 had up there was probably Mr. Herbein who arrived 10:00-10:30ish
25 sometime later that morning at the Observation Center. There may have

1 been a shift supervisor but I really can't recall at this time if
2 there was or not.

3
4 YUHAS: In the period from your arrival to Mr. Herbein's arrival were
5 you the Senior Met Ed Licensee or Met Ed Representative out there at
6 the Observation Center?

7
8 LIMROTH: Yes I was.

9
10 YUHAS: Okay. In that period of time did you issue any requests for
11 activation of contractual agreements for manpower, what I am thinking
12 of specifically is did you request help for instance from Pennsylvania
13 Power and Light or from Philadelphia Electric Company or from RMC,
14 anything like that, would you coordinate any requests for additional
15 manpower or equipment?

16
17 LIMROTH: I contacted NSS and asked for somewhere in the order of
18 thirty technicians and supervisors to come up here. I knew they were
19 going to need a whole body counter. I was involved in getting RMC up
20 here with a whole body counter and by that afternoon it wasn't a
21 question of our contacting anybody it was people were calling us
22 volunteering and I think Philadelphia Electric sent several techs up
23 here they had just arrived there...to the best of my knowledge they
24 arrived. There was a group that had come up from Salem that was up
25 through the weekend of techs.

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1 YUHAS: How about people like Bill Allen from,...he must be Pennsylvania
2 Power and Light right? Did he show up with some people technical
3 types?
4

5 LIMROTH: That name doesn't sound familiar.
6

7 YUHAS: How about troops from Oyster Creek?
8

9 LIMROTH: There were...as I recall there were two people from Oyster
10 Creek and I can't remember their names I have them written down...some-
11 where there, and they were either foreman or supervisors and they were
12 up here for less than a week as I recall and they got recalled back to
13 Oyster Creek.
14

15 YUHAS: It appears that the majority of personnel that arrived in the
16 first couple of days were health physics oriented. Is that correct?
17

18 LIMROTH: Oh no, I wouldn't say that. I'd say that they were power plant
19 oriented. They were not necessarily health physics oriented. Whoever...gees
20 you know the Stone and Websters...there was a group of something like
21 seven from Combustion Engineering that came in including a Vice President
22 that was...there was a pretty broad spectrum of engineering and health
23 physics. I can't speak too much for the operator types but that was
24 my impression at that point.
25

1 YUHAS: Did you allocate this manpower as it arrived?
2

3 LIMROTH: Yes.
4

5 YUHAS: Okay. Can you describe basically the groups of people who
6 were generic types of people and where you sent them and what you had
7 to do?
8

9 LIMROTH: The health physics oriented people we used immediately off-
10 site to augment the surveying teams and the technical people that came
11 in were guided over to a group under Bob Arnold who was then in the
12 process of putting his recovery team into being.
13

14 RESNER: Let me interrupt here at this point to break the tape the
15 time now is 4:36 p.m. eastern daylight time.
16

17 RESNER: This is the continuation of the interview of Mr. David F.
18 Limroth. The time now is 1638 p.m. Eastern Daylight Time. And I
19 guess we'll pick up where we left off.
20

21 YUHAS: We were talking about allocations of manpower, and you just
22 finished by saying that the health physics people were assigned to the
23 offsite and onsite but not in plant, I guess.
24
25

1 LIMROTH: That's right.
2

3 YUHAS: The survey team was in the first few...first few days as they
4 came in. Can you describe the organization that you developed beneath
5 you at the Observation Center to coordinate all these activities in
6 communication and other demands that were being placed upon you at the
7 time?
8

9 LIMROTH: The...the organization was varily the one of communications...
10 of the radio communications, in trying to coordinate the telephone
11 calls that were coming in. That was one group there about 7 or 8
12 people and we were being...we were rotating, in other words it was on
13 a...there wasn't anything as formal as a watchbill, let's put it that
14 way. As the various company officers came in, I guess the...really
15 the first organization we had off there was anything that was, you
16 know, Rippon appeared about...probably 48 hours after the accident
17 occurred. But the technical people, I just tried to get them in touch
18 with the proper technical people on the...of the company and just
19 getting them to work there. The health physics people we had, I think
20 it was 5, 4 or 5 survey teams going. It was one on the west side of
21 the river; we had one airborne; we had one at least one on the island
22 itself that was doing surveying, and there was one or two on the east
23 side of the river, one on the observation side, the center side there
24 on the east side, so it was a matter of keeping that manned and moving.
25 Oh, and one other: one of the huge effort was the photodosimetry effort.

1 At the time of the accident, virtually all of our TLDs and photodosimetry
2 equipment was on the island. We got a crew down to the island to
3 bring out the TLD reader and we set that up in the Observation Center
4 and we brought out all the TLDs that we could find. Now, the practice
5 has been to leave all our TLDs in the process center as you left the
6 plant in the afternoon and you pick it up in the morning when you came
7 in again. People had been issued, by this time, some people had been
8 issued some temporary TLDs to gain access onto the plant immediately,
9 and in the mean time we had brought out our permanent ones or all of
10 the TLDs that we could find in the plant, brought them out, read them
11 to rezero them, and set up a program with the...with the guards at the
12 gate to issue TLDs and gave them a very simple format on which they
13 recorded the individuals name, his social security number and the TLD
14 that was issued. And the people...there was a, I won't say a large
15 number of people coming and going but we had a limited number of TLDs
16 and a lot of people that were...that needed them read so that they
17 would bring them right back to the process...to the Observation Center
18 and we would read them and then turn them around and get them down to
19 the North Gate so that we could keep them moving, and it took us a few
20 days to get that thing sorted out afterwards but...

21
22 YUHAS: What body of people were used to set up the TLD reader and
23 then to operate it?
24
25

1 LIMROTH: As I recall, we got somebody from Harshaw out here that
2 morning. And I don't know who called them out here, but at any rate,
3 a representative from...a Technician from Harshaw was out here and
4 Mike Euring, who was ...with the Radiological Safety and Environmental
5 Engineering group at the Reading staff came out. He was qualified to
6 operate the TLD reader, and he was reading it. We had one of our
7 technicians, one of the Rad Chem Techs, was also reading these things
8 and we had numerous clerical people, anybody really that we could get
9 our hands on. They were opening these up and preparing them for
10 reading and then reassembling them as they came out the reader and
11 that was...that was a pretty massive effort for the first several...couple
12 of days until we got a trailer and got ourselves established for
13 clearing Observation Center so that was really the third before we had
14 it going.

15
16 YUHAS: In this interim period, how were the dose updates accumulated?
17

18 LIMROTH: As the people brought their TLDs out to the Observation
19 Center they were read almost immediately and the individual was informed
20 of what the reading was on that...on the TLD. There were 3...3 over-
21 exposures which occurred within the first 24 hours of this. One was
22 involved in taking a letdown...one or two was involved in taking that
23 initial letdown sample and the third one was Ed Fuhrer who went into
24 the Auxiliary Building, I believe it was, to make an inspection for a
25 leak. They were the only overexposures which occurred, and we knew
them as soon as we got them read out.

1 YUHAS: Are you aware of what was going on at the 500 KV station?
2

3 LIMROTH: Yeah. We were...we had set up a survey area at the 500KV
4 substation and the reason for that was that our background in the...even
5 as far away as the Observation Center was such that you couldn't do
6 any meaningful frisking of either personnel or vehicles, and we had
7 a...we did set up a system whereby the people or vehicles leaving the
8 North Gate, and that was the only traffic that we had coming in through
9 onto the island for at least the first three days. Those vehicles
10 would come up and go down to the 500KV substation and the people would
11 be frisked, the vehicles would be frisked, and then released. We had
12 a rig, again by this one...one radio network we were calling the
13 guards would call the substation and tell the substation that the
14 vehicle under so and so and give them the license number had just come
15 out and he should be down there keeping the record there just to make
16 sure that nobody had...or everybody who had left the North Gate was
17 going down there to be frisked and then released.
18

19 YUHAS: Were you aware of any individuals that went through this that
20 were contaminated?
21

22 LIMROTH: There were a few cases of contamination that were reported
23 back from the substation. By this point we had some techs and I
24 believe they were NSS techs down there. We had very limited decontam-
25 ination facilities down there, it was really not much more than a sink

1 and there were a couple...I can't give you the exact number, but it
2 was less than 10, cases of minor skin contamination, and they were
3 decontaminated down there and released.
4

5 YUHAS: Were any of the individuals that were overexposed or...I
6 wouldn't use the word overexposed...but exposed in excess of the
7 regulatory limits, were they contaminated?
8

9 LIMROTH: Yes, Ed Houser who is a Chemistry Supervisor, and he was
10 involved in drawing the letdown sample, as I recall. He did have some
11 skin contamination on his arm and, as I recall, some on his leg or his
12 knees that was fixed because he had that in a...we had that wrapped up
13 in poly just to sweat it out of him for the first couple of days.
14 Then they, you know, he sweat it out and got rid of it, but that's...that's
15 the only case that I can recall of someone exceeding 3 rem per quarter,
16 who had any contamination on him.
17

18 YUHAS: Are you aware that Mr. Velez was also contaminated?
19

20 LIMROTH: I can't recall whether he was or not.
21

22 YUHAS: Did anyone inform you of the relative levels that Mr. Houser
23 was contaminated to?
24
25

1 LIMROTH: It was in the...on the arm, it was in the order of a couple
2 of millirem and I don't recall if it was 5 or 10, but there was...it
3 was enough...it was above the hundred counts per minute range, it was
4 in the millirem range, yes.
5

6 YUHAS: Are you aware of any facilities or agreement facilities for
7 decon of personnel available during an emergency?
8

9 LIMROTH: The Hershey Medical Center is the closest one. That is
10 where we would normally send, you know, a casualty...a contaminated
11 casualty.
12

13 YUHAS: So as far as you know the only provisions for sending someone
14 to Hershey for decontamination would be if they were also injured?
15

16 LIMROTH: Yes.
17

18 YUHAS: Okay, so in other words no consideration was given to sending
19 Houser, for instance, to Hershey to be decontaminated?
20

21 LIMROTH: No, uh uh.
22

23 YUHAS: Did you physically observe any decontamination efforts being
24 performed in the Observation Center in the mens room?
25

1 LIMROTH: No I did not.
2

3 YUHAS: Were you aware if or if not logs were being maintained as to
4 who was contaminated and the extent of their contamination and after
5 their deposition, either at the 500KV or there at the Observation
6 Center during the first 3 days?
7

8 LIMROTH: There were records being kept on the log, and it would be
9 stretching the imagination, there were records being kept, they were
10 extremely informal records, I had given them verbal instructions
11 that...to write down, or keep some semblance of a record on anybody
12 that had come up there, and then had any decontamination _____.
13

14 YUHAS: Who did you give that direction to?
15

16 LIMROTH: They were...it was some of the NSS techs who were there that
17 we initially...that we first got down and I can't recall whose names
18 at this point.
19

20 YUHAS: Did you ask any of your rad chem foremen to verify that records
21 were being maintained in some semblance?
22

23 LIMROTH: No because my foreman were...as soon as they came in they
24 were immediately down there in the plant and with the exception of
25 Velez who runs...as I recall got called back into the plant that

1 morning. I didn't have any foreman other HP or chemistry foreman or
2 my two supervisors...any of my supervisory people up here...up at the
3 Observation Center.

4
5 YUHAS: Do you know a Robert McCann?

6
7 LIMROTH: Yes I do.

8
9 YUHAS: Is he a...HP foreman?

10
11 LIMROTH: He's an HP foreman, yes.

12
13 YUHAS: Did you see Mr. McCann out there in the first 3 days?

14
15 LIMROTH: I really...I can not recall his being out there, no.

16
17 YUHAS: Okay. Were there any chronologys or rough records of any sort
18 maintained there in the Observation Center as to communications or
19 disposition of manpower resources during the first couple of days?

20
21 LIMROTH: There were records kept of communications and that was it.
22 The record of communications did not keep any records of where people
23 were or what they had been assigned to.

1 YUHAS: Do you know the deposition of these records?
2

3 LIMROTH: Not at this point I don't, no. They were all being transcribed
4 from pretty rough notes to type records and somewhere along that line
5 I remember that they had minutes of it would be up in the 130, 140
6 pages of typed notes, and that was before that week and had come they
7 were the typed records.
8

9 YUHAS: Could you give us any idea of who would be the best person to
10 contact regarding these records?
11

12 LIMROTH: I don't exactly know where those records are now. The last
13 time I saw them was in the Observation Center, and I don't know exactly
14 where they got transferred to.
15

16 RESNER: Who in the Observation Center had responsibility for those
17 records?
18

19 LIMROTH: I don't think, well, I don't think the responsibility was
20 really never assigned for those; they were being generated, they were
21 being preserved and were being typed, and the Observation Center per
22 se, was still I guess in operation of some form when I came down
23 over...when I left there over the weekend...about the weekend and came
24 down into the...got down on the plant up in the Unit 2.
25

1 YUHAS: Can you describe briefly Mr. Herbein's actions on arrival.
2 Did he establish a secondary control center or an immediate reponse
3 center, or something of that order in the Observation Building?
4

5 LIMROTH: He had, as you want to call it, a command center established.
6 We had already gotten started by the time he arrived. It was primarily
7 communications oriented and we had a plot you know, the chart of the
8 area, the...not the grid but the polar plot of the area on which we
9 were maintaining an up to date status on the release and the dose data
10 as fast as it was being reported in. I think that's about it.
11

12 YUHAS: Was...on this isopleth that you had, was someone calculating
13 atmospheric dispersions of the release?
14

15 LIMROTH: They were being calculated in the Unit 1 control room and a
16 little bit...sometime during that day, Mr. Sid Porter of Porter Gertz...
17 they're our consultant...arrived and he...I think he was sent to the
18 control room immediately and that's where they...where the dispersions
19 were being calculated.
20

21 YUHAS: Did you assign someone to keep this plot up to date, this map?
22

23 LIMROTH: Yes I did, that was being kept in the front end of the
24 Observation Center, if you will, and it was being kept up to date as
25 we came...as we got the information in from the survey teams. What

1 the specific activities were that they were recording either in
2 radiation exposure or specific activity that was being recorded _____.
3 I can't say.
4

5 YUHAS: Who is the...the first 3 days now, who was coordinating relations
6 of information to the press from the Observation Center?
7

8 LIMROTH: The releases of information or coordination of releases of
9 information were being controlled by Mr. Bill Gross who is a Public
10 Information Coordinator, and although the information that we were
11 giving them at that time was pretty sparse, there was _____ and
12 sometime, I think it was Wednesday afternoon, Jack Herbein did address
13 a group of probably, by that time there was somewhere about 30 or 40
14 reporters out there that day. It was about 2:00 in the afternoon as I
15 remember, that he addressed them and all further releases of information
16 were...we just weren't releasing much information at that point.
17 About that time, as I recall, the NRC got here. Some of our information
18 services people started to appear on the scene and press inquiries
19 were being directed really to our...to either Bill Gross who worked at
20 the...our information services people.
21

22 YUHAS: Were you in the Observation Center Friday morning, the 30th?
23 This would be the morning that great consternation developed over the
24 evacuation.
25

1 LIMROTH: Yeah. Yes I was.
2

3 YUHAS: I wonder if you could give us a run down on what was going on
4 in the Observation Center in terms of the various conjecture as to
5 evacuate, not to evacuate, and how far out to evacuate. Who was recommend-
6 ing, who was not recommending, etc.?
7

8 LIMROTH: Well to put it...to say that it was confused would have been
9 an understatement. We were getting as much information off the
10 television set there as...as far as the evacuation was concerned as
11 anyone else. The general attitude within the Observation Center was
12 that it had gotten out of control and based on the information that we
13 had seen there was no need for evacuation and the information that we'd
14 gotten from the plant, things were in sort of a semi-stable condition
15 and knowing radiation levels that we were having reported back, the
16 release information and the specific activities, the airborne activities
17 that we were picking up there. It was the general impression of
18 everyone there in the Observation Center that this was...there was an
19 awful lot of over reaction on the part of the state, and it was very
20 difficult to find out who was...who outside of here...outside of the
21 island was making...of recommendations ordering evacuations,
22 recommending evacuations, and so on. I know that to the best of my
23 knowledge there was no recommend... from the Observation
24 Center area that the area be evacuated.
25

1 TAPE RUNS OUT.
2

3 RESNER: This is a continuation of the interview of Mr. David F. Limroth.
4 The tape cut it short the time now is 1706, excuse me, 5:06 p.m.
5 eastern daylight time and Mr. Yuhas had just asked a question.
6

7 YUHAS: The question I was just asking Mr. Limroth was specifically
8 how did you coordinate the sampling effort?
9

10 LIMROTH: The coordination of the sampling effort was to ensure that...
11 that the sampling teams had instrumentation and the counting equipment
12 and the sampling equipment which is necessary for that...these are
13 portable air samplers, radiation survey meters and the SAM 2s, portable
14 SAM 2s, for counting airborne samples that were drawn. The actual
15 direction of where to go and how many teams was being directed by the
16 ECS and we were implementing making sure that we had people there,
17 that they had the equipment there, and they got underway and that it
18 was getting done.
19

20 YUHAS: It is my understanding that there were only two operable
21 emergency kits and those kits contain a SAM 2, PIC-6, and some other
22 equipment. When you were outfitting these additional teams where did
23 the instrumentation come from?
24
25

1 LIMROTH: We some...we got...we did get some instrumentation...was
2 brought in by Philadelphia Electric and some other instrumentation
3 came up from Salem I think. We got some instrumentation very early
4 that morning from Salem that came up with a group of technicians that
5 were being brought up which was quickly put into service with the
6 survey teams.

7
8 YUHAS: Would you know if for instance in the 140 pages of written
9 notes they would include information as to when the support groups
10 arrived at TMI?

11
12 LIMROTH: I don't believe that that is in there. I couldn't say yes
13 or no but I do not believe that that is in there.

14
15 YUHAS: Basically do you know who maintains these records that were
16 finally collated and put into some form?

17
18 LIMROTH: There was...the manning of that group was primarily our QC
19 Department personnel here with Terry Macky and...I can't remember who
20 else is in charge...I think John Brummer headed up another shift worth
21 of personnel in there and we had someone that was heading up the
22 clerical people ...I can't remember who it was... that...I can't
23 remember the constitution of that effort there.

1 YUHAS: Are you familiar with Technical Specification 6.2, Facility
2 Organization, both at TMI-1 or 2?
3

4 LIMROTH: Yes, probably not by that number but I'm...
5

6 YUHAS: Okay. Where do you fit in in the facility description area as
7 far as personnel that they have on?
8

9 LIMROTH: Unit...we were just in the...in the process of revising that
10 tech spec. I had reviewed it, in about February, because the current
11 one doesn't even reflect my position in that in the tech spec and I
12 was being...there was a revision that had come through me for review,
13 which put my position...my position is a new one in the station.
14

15 YUHAS: Do you...if that proposed revision to the organization chart has
16 been submitted or not?
17

18 LIMROTH: I don't know whether that had been submitted or not. It had
19 been commented upon out here...out here at the island and sent back to
20 the licensing section and ready for submission.
21

22 YUHAS: I am a little confused over what position suborted to Mr. Dubiel
23 that's referred to in the emergency plan and that's the Chemistry
24 Supervisor. Has that position been done away with and now you simply
25 have some chemistry foremen?

1 LIMROTH: We do not have a Chemistry Supervisor per se. We have only
2 three chemistry foremen who report directly to Mr. Dubiel and we have
3 a position staff chemist which is...has now been changed to chemist that
4 is a support position I guess is the best way to describe it,
5 to whom nobody really reports he...that's a technical position rather
6 than a line or line supervision position. That the incumbent in that
7 was had just been changed about February I think it was.
8

9 YUHAS: Does Mr. Fredericks...I think his name is...
10

11 LIMROTH: Ken Fredericks, yes, had been our staff chemist and in about
12 February as I recall he was transferred to the service company or to
13 the lab in Reading and his position was filled by Mr. Gary Chevalier.
14

15 YUHAS: Do you know if Mr. Fredericks was on site during the incident?
16 Did he come down and help out or perform in any way the first couple
17 of days?
18

19 LIMROTH: I know he got up here but I couldn't tell you exactly when
20 he arrived.
21

22 YUHAS: Do you know if Mr. Chevalier was involved in the incident at
23 all?
24
25

1 LIMROTH: Yes he was...well he was in the...he was called into the
2 plant very early on and he came to help with the chemistry sampling. I
3 presume it was supervision in the lab.
4

5 YUHAS: Do you know who filled the position in the emergency room
6 organization as the supervisor of chemistry...the chemistry supervisor?
7

8 LIMROTH: No I do not.
9

10 YUHAS: Alright. I don't have any other specific questions right at
11 this time. I do have one generic question. I ask it even though you're
12 probably not in a position to...since you haven't been with TMI that
13 long to answer it but...do you suspect or have any reason to believe
14 that any individual may have precipitated or may have aggravated the
15 incident that occurred on March 28th?
16

17 LIMROTH: No sir.
18

19 YUHAS: Okay. I'd like to thank you for your time and we will be
20 expecting to get a copy of your job description.
21

22 LIMROTH: Yep.
23

24 YUHAS: ...Or of the tape.
25

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1 RESNER: Resner speaking. This concludes the interview with Mr. Limroth.
2 The time now is 5:15 p.m. eastern daylight time.
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