

BY MR. YANNACONE:

Q. You described a large room split by a partition. Can you give us some idea, maybe, with reference to the size of this room as to how large the entire room was? A. It was an army barracks, so was bigger than this I guess the room that the Maxitron was in, the section of it, all would be from that wall to the back section.

MR. YANNACONE: Indicating a room approximately 20 x 20

Q. Now, how high was the separating wall?

A. It was 10, 12 feet – 10 feet, I guess. [38]

Q. Over your head?

A. Oh, yes.

Q. Higher than you could reach?

A. Yes.

Q. And do you know what this wall was made out of?

A. Some sort of a cement. I don't know what it was. It was in block form that they built it with.

MR. SMIT: If she doesn't know, she shouldn't speculate. \*\*\*

MR. YANNACONE: All right.

Q. How far away on the operator side of this wall, was the control table or console?

A. It was right next to it.

Q. Flush up against it?

A. Yes.

Q. Where was it with respect to the glass window?

A. When you sat right at the table, the window was in front of you.

Q. Directly in front of you?

A. Yes.

Q. Will you tell us what lead and what form it was in that was on the console side of this wall?

A. Oh, a lead sheet that you can bend. I would have a tough time cutting it. That was on the floor taking in the full space of the console and where you would sit. There was some kind, some sort of canopy overhead but I don't know what was in that.

Q. Do you know if it was lead?

A. I think it was like, but I don't know.

Q. Inside the Maxitron room, would you tell us the location of any lead shielding and what kind it was?

A. There wasn't any.

Q. There wasn't any?

A. No.

Q. No shielding on the inside walls?

A. No. There was just the heavy doors. He said that was either lead or some sort of steel.

Q. No shielding on the floor in the Maxitron room, was there?

A. No.

- Q. And no shielding on the Maxitron side of the wall?  
A. No.
- Q. At any time during the course of your operation of that console, while the GE Maxitron was operating emitting x-rays, was that area where you were sitting monitored?  
A. Unless I did it, no. Pardon me, once – they were monitoring while we did it. They had the [40] monitors in the area just to see what the dosage was. \*\*\*
- Q. Where was [Charlie Meinhold] holding his monitoring equipment with respect to where you sat?  
A. All over the place, behind us and outside the building.
- Q. Did he make any comments as to the results of his monitoring to you?  
A. Well, yes ... He said, “sit in front of the console and not back near the door.” Where we were told to sit before.”
- Q. Had you, prior to this examination by Mr. Meinhold, been at any other place at the console?  
A. Yes.
- Q. Where will you standing?  
A. For a very long time for a run with one of the dogs or something of that sort, I stayed back, I guess, about the same distance from the control as the machine was to the other side of the wall.
- Q. That’s about 15 feet.  
A. – Or 20 feet, I’d say. I used to use my binoculars to check the voltage.
- Q. Would you tell us approximately how long one of these dog [41] runs lasted?  
A. They could vary from 15 minutes to a couple of hours.
- Q. And all during this time, the GE Maxitron was running and emitting x-rays?  
A. Yes.
- Q. You will within 30 feet of the GE Maxitron.  
A. Yes.
- Q. Do you have any idea or any recollection of what the doses were on those dogs as you measured or subsequently calculated?  
A. Oh, a couple hundred of millirems.

Q. When you handle these radioactive isotopes and you work behind this castle, was there any portion of your body not protected by the castle from the manipulation of these radioactive materials?

A. Always your hands and sometimes your head, if you were looking. See, you use the mirror, yes, but to see exactly where you will placing it, sometimes it was necessary if you took a quick look over the wall.

Q. You will forced by circumstances to put your head over the castle, is that right?

MR. SMIT: I object to that characterization.

THE REFEREE: That's a conclusion; yes ... While we are on the subject, I have [42] before me page 21 in the book "ABC of Radiation" which was introduced by the carrier and, according to this picture on page 21, it seems to indicate that the operator behind the lead wall does not have to, at any point, stick any portion of his or her body over the wall to get anything into position.

THE CLAIMANT: That must be wrong.

THE REFEREE: Look at this picture and tell us if that is a fair representation of the procedure used at this particular point.

THE CLAIMANT: No, it's not.

MR. YANACONE: Can she continue, please?

THE REFEREE: Tell us why not?

THE CLAIMANT: There were no – this is a sort of long distance manipulator with mechanical hands inside. We have none in medical.

THE REFEREE: You have none?

Q. Did you ever have any during the entire course of employment there?

A. No.

Q. Did you handle radioactive materials without the use of any long distance manipulators in the medical physics department? \*\*\*

A. Yes. [43]

MR. SMIT: As long as counsel has seen fit to comment on the interesting picture in the book, may I suggest that they very well may have good reasons why she didn't need to manipulate from the outside and that the material she was

handling was not the same or in the same category as the material you see pictured in that book.

MR. YANNAcone: The claimant is not a physician. She is a technician. Subsequently on cross-examination of the battery of physicians you brought here, we will determine what degrees of radioactive material she was handling, but in the meantime, let's determine what safety precautions were taken with respect to her, and let the Referee decide on the questions.

THE REFEREE: I am not going to determine whether or not the safety precautions or industrial safety guarding methods were good, bad, or indifferent. It's only a question of whether this woman received an exposure which resulted in her disability.

Q. I would like to show you page 20 of the "ABC of Radiation" and ask you to describe the hand and foot counter as it was in medical physics and as you were taught to use it.

A. The hand and foot counter usually did not work. The one in the new building did work 90% of the time. In the old building, I don't know what was the matter with it, but it usually was pulled out of the wall. It wasn't working. [44]

Q. Approximately how many years were you in the old building?

A. I was there for years.

Q. During the course of those four years, you were not able to use the hand and foot counter?

A. That's right. Also this one has a sign, "leave Lab coats here." In the old building you use the same lab coats. In the new building, I used a separate coat.

THE REFEREE: The hand and foot counter is a device that measures the amount of radiation that appears on your hands and feet?

THE CLAIMANT: Only on your feet.

Q. At any time during the four years you were in the old building, was the hand and foot counter repaired?

A. There was somebody at it every few months, but usually it wasn't working.

Q. Can you give the court any idea from either your own calculations or your own knowledge only, of what the quantities of radioactive material you handled were, either in terms of Curies, doses, or Roentgens?

MR. SMIT: I will object to the question as relates to roentgens because that is certainly something she can't estimate or guess at. She might be in a position to determine the Curie dosages or whatever you call it. I raise the issue of whether she is competent to testify on that. [45]

Q. On January 21, 1958, did you have occasion to deliver a measured dose of 91 roentgens to some goldfish?

MR. SMIT: I object to that on the ground of its leading and suggestive.

THE REFEREE: You have raised the issue as to whether or not she is competent to answer the question. This is only for the purpose of qualifying her on the question.

MR. SMIT: This is leading and suggestive of facts which the Council is in possession of. Certainly, she hasn't given us the information.

MR. YANNACONE: I have a series of records dating from May 12, 1955 and covering the period through June 19, 1958 indicating that on various days –

THE REFEREE: (Int'g.) was that record made by the claimant?

MR. YANNACONE: No. This comes from the Laboratory.

MR. YANNACONE: That happens to be the Laboratory notes and books which I examined prior to the claimant's termination of employment at Brookhaven.

THE REFEREE: Perhaps if you let her examine these, it might refresh her recollection.

Mr. Yannacone: These are copies.

MR. SMIT: He has only a yellow sheet of paper [46] in front of him with some notes on them. I object on the ground that it's hearsay and irrelevant.

MR. YANNACONE: Mr. Referee, I intend to present the question to every one of the witnesses to come in here. I intend to give this list of 12 dates and asked them if the claimant delivered such and such a measured dose of radiation to such and such

a type of animal with respect to such and such a project for such and such a person. I have these records.

THE REFEREE: Now, because the highly technical aspect of this whole question, I will allow this claimant to answer, subject corroboration by the staff here assembled.

THE CLAIMANT: yes, x-rays probably.

MR. YANNACONE: I have no further questions.

BY MR. SMIT:

Q. If it is a fact that on the date indicated, you were exposed to 91 roentgens which you gave to the goldfish, you were in the Maxitron room, is that right?

A. Yes.

Q. That's the room we were talking about. You were behind the wall when you pushed the button, is that right?

A. Yes. [47]

MR. YANNACONE: Is there any way of knowing how much dosage you received on the day you gave these goldfish the 91 roentgens?

MR. SMIT: I object to that.

THE CLAIMANT: No.

MR. SMIT: She is not competent to testify.

BY MR. YANNACONE:

Q. What is the dosage you received on that day, to your knowledge, ever measured and reported to you?

A. No.

MR. SMIT: I object on the ground that there is no proof in this record that she receive any dosage on that day.

MR. YANNACONE: Subject to connection.

THE REFEREE: Subject to connection, I will take it.

Q. Yes or no?

A. No, I was never –

MR. SMIT: (Int'g.) You don't know whether you received it or not, is that right?

THE CLAIMANT: I know the machine along side of me [48]  
received it, but I don't know what I got.

Q. Was the machine alongside of you a device for measuring radiation?

A. Yes.

Q. What was it?

A. It looks like a powder-puff holder.

MR. SMIT: Were you wearing a device, a badge?

THE CLAIMANT: Yes.

BY MR. SMIT:

Q. Now, do you know what the other device read?

A. Yes.

Q. Did you read it?

A. Yes.

Q. You actually read it?

THE REFEREE: She said she actually did. \*\*\*

BY MR. YANNACONE:

Q. Can you tell us of your own knowledge, what percent of the time your film badge and those dosimeters in your badge pocket were [49] protected by shielding?

A. I wouldn't want to give a percentage, but I know my hand received more than the film badge. My hand actually touched the bowls.

Q. Can you give me a rough percentage of the time your film badge was protected by the lead castle, restricting this particular comment to only standardization in the hot lab behind those castles or that castle.

A. About 99%, I guess.

MR. YANNACONE: all right. I have no further questions.

BY MR. SMIT:

Q. Did you wear a ring bad on any occasion while working behind?

A. I think we did once, but the conjecture was that it was old film because we never got a report on it.

BY MR. YANNACONE:

Q. When did this once occur?

A. Oh, just one day when they had a shipment in.



Q. Miller that was one day. On no other occasion did you wear a ring badge, is that right? \*\*\* And now you never wore a radiation badge other than that which you have [50] testified to?

A. Never.

Q. You always carried these in your breast pocket?

A. Yes.

Q. Were you ever given any protective clothing, such as lead aprons?

THE REFEREE: We went into that. She said no.

MR. YANNACONE: Then I have no further questions at this time.

MR. SMIT: I have no further questions for the claimant, Mr. Referee. [51]