CLAIMANT, being duly sworn, testified as follows:

BY MR. YANNACONE:

Q Will you please tell the court just when you were employed at the Brookhaven National laboratory?

A From October, 1954 until, I think it was July, 1959.

Q During your employment at Brookhaven national laboratories would you tell the court what you were general duties were?

A Standardization and distribution of isotopes, some work at the Pile, some x-ray work with animals, mostly animals. There was chemistry, some x-ray work with mice, dogs, goldfish, chemicals, some tissue digestion. In other words, chemical analysis of some tissues, some calculations, gold flux. I guess that's about it.

Q Prior to your work at Brookhaven National laboratory, did you ever handle radioactive materials?

A No. [2]

Q. Were you ever exposed to any sources of ionizing radiation?

A. Yearly dental examinations and every couple of years I have a chest x-ray, and once I had an x-ray of my neck when I had some headaches.

Q. Will you tell the Court just what your work with x-rays at the lab consisted of *** What equipment did you use?

A. The GE Maxitron. You warmed it up and you did dosimetry; you did dosimetry for the distance of the setup you were going to use. Then you either put the animals in position or anyone else who had the animals; then you watched the voltage and amperage to

make sure that the didn't fluctuate too much. *** Either I or the doctor would then watch the machine to watch that the voltage didn't fluctuate too much. You sat at the control table and timed it; took the animals out and turned it off when it was finished. [3] *** You either brought them back or, if it was large like a dog, maybe a vet or somebody else would come down for it.

Q. Would you tell us approximately how long the X-ray machine was actually emitting x-rays when you will working around during the course of one of these procedures ...

THE REFEREE: This machine emits x-rays?

MR. YANNACONE: Yes.

THE REFEREE: Is that conceded?

MR. SMIT: It's an X-ray machine.

THE CLAIMANT: That machine is the only one I used ... Most of the time when you were there, the machine was on because it didn't take too much to set it up.

MR. SMIT: I asked that statement be stricken. It's not responsive to anything.

THE REFEREE: the question is how long did she work around that machine and I don't believe is completely responsive. But, I'll allow her to continue with their answer.

Q. You described a procedure involving this machine ... During the course of the time that you worked around this machine, what period of that time was the machine actually emitting x-rays?

A. Well, it depended on how long the machine itself was running, but it took, sometimes 10 minutes ... To half an hour to set it up ... At times the machine would be running for a minute and sometimes for two hours.

Q ... Would you tell us just what your work around the Pile consisted of? First of all, would you tell us what the Pile is.

A. It's the Lab's big reactor; it's not the medical reactor ... It's a very large building and most of the time you work in the medical facility which had its two shields that could be removed. The one we usually used was the small block. I guess it was 3 ft.^{2}. The large block would be taken out for the patient to work which I was up on a few times, but mostly it was the small block during the day.

Q. This block actually was within the Pile?

A. Yes, it's part of the floor. It's the floor.

Q. What did you work with this small block consist of; what did [5] you do?

A. Mostly if you brought myself, you got the animals in position and ready in the containers, then the block would be raised; and the animals would be put in the block and down and you would sit by the control table or get the next batch of mice ready, depending on how long it was.

Q. Was the Pile operating? Now, by operating, I mean emitting radiation of some kind during the entire set up.

A. Yes. The only time it would be down was for the patient work at night [with] the large block out.

Q. Would you tell us just how much shielding there was, if you know, between you and the area where the animals were radiated, or the patients were radiated when you were setting it up?

A ... I don't know exactly. It's a big, thick block and then there is an area, but I don't know what the distances.

Q. Did you ever have occasion to make any measurements of the radiation or the radiating activity within this block?

A. All yes, I need to one of these runs there was a gold foil, a pair of gold foils attached to the mouse holder or whatever we were using.

Q. Do you, by any chance, remember the order of magnitude of the radioactivity in this area, from your measurements? [6]

A ... I wouldn't want to say exactly. I would have to check with the papers.

Q. Would you tell us, generally, what your work involving isotope dilution, distribution, and standardization consisted of? ***

A. When the iodine came in, it was in liquid form so I didn't have to dilute that ... I took a sample of it and put it in a large flask, mixed it and took a sample of the flask to plate and count. For the other isotopes, such as sodium, which would come from the Pile, ... It would be in powder form so I would have to dissolve it, tested for pH, and then do the same thing I did with the iodine, put a sample of it in a large flask and pipette that into account thing vile or onto a plate and count to see just how active it was and count back to the dilution angle down to the hot lab and pipette out the sample that the doctor needed. You had to know

how hot it was in order to give them the order they wanted. If you didn't standardize it, you would be guessing. You had to do it.

Q. What of the radioactive materials are isotopes do you remember that you distributed, standardized, or diluted? [7]

A. Iodine 131, sodium 24, potassium, phosphorus; I worked a couple of times with sulfur but I didn't standardize it. The counter wasn't working; iron 59. I did standardizing of gallium. I didn't actually work with the gallium. I did the standardization. That was a little complicated. You had to carry it down the hall and it was double dosage. We generally split that procedure so we knew that one person is in getting it all. ***

Q ... Did these duties of yours involve direct handling of radioactive materials?

A. Yes.

Q. Did these duties of yours that you just described involve exposure to ionizing radiation?

A. Yes.

Q. Were there any duties during your course of employment at the Lab that did not involve the handling of radioactive materials?

A. Yes ... I did tissue distribution of boron in mice which were not the animals that were irradiated. I did some calculations for Dr. Maxfield, but that was the last year I was there. I think that's about it. [8] ***

Q. Did any of those jobs that didn't involve the actual handling of radioactive material involve your exposure to ionizing radiation?

A. Yes, the calculator was in the counting room, but we weren't in the hot lab at that time.

Q. Where there radioactive materials present in the counting room when you did your calculation?

A. Some.

Q. Do you have an estimate in terms of percent or any other rough estimate of what portion of your work time at Brookhaven Laboratory didn't involve either handling radioactive material or being exposed to ionizing radiation?

A. I guess 25%.

Q. This includes coffee breaks and lunch.

A. Yes.

MR. YANNACONE: If the court doesn't mind, I would like to stipulate for the record the history portion of a report of the carriers consultant dated May 2, 1961. *** I don't want her to recite the family history again. ***

MR. SMIT: I am not conceding the history. If you want to say that that is what you will testify to, that is perfectly all right, but I will not make any concession.

THE REFEREE: Why not have it submitted into evidence subject to your right of cross-examination on the question of history. *** It's stipulated that the report of Dr. Hamilton dated May 2, 1961, is to be incorporated into this record, the history, subject to the right of the carrier to cross-examine on the same. *** Now, in your statement of Dr. Hamilton, you described a certain allergic condition which was apparently present before your employment at Brookhaven National Laboratory. Will you please [10] tell the Court just what these allergies consisted of and their general course of progress?

A. I have hay fever. At one point I couldn't eat bread. Now I can. I can't eat bananas, but outside of that--

THE REFEREE: (Int'g.) Did you give this doctor a history that since 1946 your allergic to various dust, including wheat, and cheese?

THE CLAIMANT: Yes. The week, cheese and such – – we found them on the test. But they don't particularly bother me. It's mostly the ragweed and grasses. ***

Q. During your work at Brookhaven National Laboratory, Did you have occasion to note any change in the condition of your health? [11]

A. Yes. I had a dermatitis on my hand.

Q. Would you tell us about this dermatitis?

A. Well, while I was working with the tissue digestion, I noticed that my left hand got a rash across the entire back of it. I went up to the pharmacist and asked him for hand lotion because, at first, I thought it was from working in washing dishes. So he gave me a hand lotion and he suggested I change my soap at the same time. That didn't help. I mentioned it to the woman doctor who was there at that time. I went up for a physical but this was at the end of the period and it was starting to disappear. You could see the line where it had been. She said if it cropped back to come back to her, but while it was on my hand, it was across the back of both hands for a period.

Q. Did it ever recur?

A. It came back once – I don't know why, but it came back on the back of my left hand again ... That was ... Three years ago, because it was a few months before my wedding.

Q. Did you see anybody about it? [12]

A. I mentioned it to Dr. Rosten, and he gave me a salve and suggested that I try to keep my hands out of water, but if I had to wash them, to use cold water.

Q. Did it ever occur again?

A. Yes, it came back once after the baby was born. I was using Borax in the wash and it came back. Now I keep out of it.

THE REFEREE: Let's have a date on the second occurrence. How many years ago?

THE CLAIMANT: The beginning of this year.

MR. YANNACONE: That's the third occurrence, Mr. Referee.

THE REFEREE: Yes. Is that the last one?

MR. YANNACONE: Yes.

Q. Did you ever have occasion to handle mice and materials lining their cages?

A. Oh, yes.

Q. Did anything occur when you were handling mice and material lining their cages?

A. Yes, the rash came back on my hand. They had just changed from Sta-dri. That was the sugarcane substance that they put on the bottom of cages, and my hand broke out. I mentioned it to Dr. Bond, and he changed it back to Sta-dri and went away.

Q. Did you have occasion, during your employment at Brookhaven to [13] see any doctors other than local doctors?

A. ... I went to a doctor, Dr. [Louis Lawrence] Schapiro, in the city who was an internist ... In January, 1959 for just a general physical. I felt I needed one for about a year but I hadn't gotten to it.

Q. After you had this general physical examination, did this Dr. Shapiro give you any advice? ***

A. The first thing he asked me was when I was going to stop working. Then he suggested that I keep away from radiation as much as possible. He said I had an anemia –

Q. (Int'g.) you can't testify as to the medical condition. But he told you to stay away from radioactive material.

A. He suggested I quit.

Q. Subsequent to your examination by Dr. Shapiro and the receipt of this advice, did you make any changes in your work habits?

A. Yes.

Q. What did you change?

A. I talked it over with Dorothy Driscoll. I worked for her and with her. Dorothy did some [14] of the work and we tried to split it up so I was in the hot lab less than I had been before. This was at the time when we moved into the new building so there was a little bit less work on the regular work. The only thing that was weekly was the sodium 24 and occasional iodine, so Dorothy did all of it. ***

Q. Then you made that change in January, 1959.

A. Yes.

Q. At any time during your employment at Brookhaven, did you discuss the nature of your work with respect to exposure to you, personally, with any of your superiors at the lab?

A. Yes ... With Dr. Stickley and once with Dr. Robertson, and I guess you would call Dorothy one of my bosses, Dorothy Driscoll.

Q. Just what did you complain to them about?

A. Well, the first time with Dr. Stickley, the hot lab had been contaminated. I didn't know whether they should distribute any of the iodine because we couldn't use any of the shielding. He suggested that Gloria and I put a couple of lead bricks on the lab bench in the back and I would hold isotope tongues and Gloria would pipette. [15]

Q. Would you tell us approximately when this happened?

A. I guess it was the first winter I was there. I don't remember the date.

Q. That is 1955.

A. Around then; yes.

Q. When did you have the subsequent discussions with Dorothy Driscoll and Dr. Robertson?

A. Dorothy came, I guess, about 1957 or 1956. She came and that's one of the first things we talked over because the Castle in the hot lab was too low.

Q. Would you tell us generally what formal safety instructions you received during the course of your employment at Brookhaven?

A. I received none. ***

Q. Had you ever studied about or worked with radioactive materials before?

A. No.

Q. Would you tell us as best you can what separation there was or shielding there was between you and your coworkers who might have been handling radioactive materials or sources of ionizing radiation and ionizing radiation? [16] ***

Q. You stated you worked at two locations, the "old" and "new" building. Now, with respect to the old building, would you tell us what shielding or shielding material there was between you and your coworkers who might've been handling ionizing radiation's sources or radioactive materials?

A. Sometimes, just the wall.

Q. What was the wall made of?

A. I guess it's some sort of Masonite or plasterboard.

Q. Not made of lead?

A. No. Sometimes it would be a thin – ***

THE REFEREE: What room did it take place in? [17]

THE CLAIMANT: In the hot lab there would be a thin wall. I should say an – alleged, brick wall.

Q. What was the name of your department in the old building?

A. Medical physics.

Q. Was that assigned a specific portion of the old building?

A. There were two or three specific portions; yes.

Q. Which one of these two or three specific portions was it called and where was it located, to your best recollection; where were you working during the majority of the time in the old building?

A. There was not majority the time. You spent a lot of time walking in between the hot lab. That was in the back of physiology, the

counting room and – past physiology, bacteriology, past pathology, and into the other building. There was a long connecting hall. So –

THE REFEREE: (Int'g.) we are trying to talk about at the time of the handling of these materials.

THE CLAIMANT: Yes. You carried it from one to the other.

THE REFEREE: It was the same physical setup in each of these rooms?

THE CLAIMANT: The hot lab had the lead shielding. You would carry it in a flask or lead pig or down to the solution.

THE REFEREE: What was the separation of the wall? [18]

THE CLAIMANT: In the dilution room there would be a wall, the Masonite, plasterboard, or whatever was made out of.

Q. Now, did there come a time when you terminated your employment at Brookhaven?
A. Yes.

Q. At the present time, are you able to work?
A. Yes.

Q. Are there any limitations to what you can do?
A. Outside of isotope work, no.

MR. YANNACONE: That's all, Mr. Referee. I have no further questions.

BY THE REFEREE:

Q. Now, when you were employed by this Laboratory, did you get a pre-employment physical?
A. Yes ...

Q. That would be in 1954. [19]
A. Yes.

Q. Are you checked up by the Lab at any time after that on a regular, routine basis?
A. Approximately once a year, yes, sir.

Q. By the Laboratory?
A. Yes.

Q. Did you ever have the Laboratory tests in the Lab indicate anything but normal, physical health?

MR. YANNACONE: I'll object to that ... If we are going to discuss the Lab tests, let's ask what these test consisted of. One of the claimant's contentions here is that she was working there five years. She received at least five or six physical examinations. *** We asked that the records be submitted but the carrier refused.

MR. SMIT: I have the records.

MR. YANNACONE: All right. They will all show that there were no blood chemistries taken. Let's have the claimant describe these physicals.

THE REFEREE: All right. [20]

Q. What did the physical tests consist of that you had taken?

A. Urinalysis, white count, red count, differential blood count, the doctor's physical exam, chest x-rays, and when you first went in, they did the Rh test and blood type.

MR. YANNACONE: Did they ever draw blood from your veins at any time at Brookhaven?

THE CLAIMANT: No. ***

Q. Did you ever get any protective clothing of any kind issued to you?

A. I used rubber gloves ... Surgical rubber gloves.

Q. Did you wear any kind of badger radiation detecting device on your person when you work?

A. Yes, in the pocket, on the lab coat.

Q. Did anything ever happen to you that would be unusual in your experience?

A. Only once was I called on the film badge. *** [21] one time, one of the health physicist called me up to tell me that I had gotten an exposure that registered but it wasn't a major one or anything to worry about.

MR. YANNACONE: Will you stand up and show the Referee and the Court the position in which you carried your devices?

THE CLAIMANT: The two pencils, which we called them, were in the Lab coat pocket here and the film badge around right here.

THE REFEREE: Indicating in the left pectoral area.

MR. YANNACONE: Would you please indicate again, with respect to yourself, the location of the lead shielding in the form of castles about your work area?

THE CLAIMANT: Right here.

MR. YANNACONE: Indicating her shielding of the left pectoral area.

THE CLAIMANT: It would have to be a height that you could reach over and see over. [22]