This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL
NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH

+ + + + +

ADVISORY BOARD ON RADIATION AND
WORKER HEALTH

+ + + + +

WORK GROUP ON OAK RIDGE HOSPITAL

+ + + + +

WEDNESDAY, OCTOBER 7, 2009

+ + + + +

The Work Group meeting convened in the Zurich Room of the Cincinnati Airport Marriott Hotel, 2395 Progress Drive, Hebron, Kentucky at 9:30 a.m., James Lockey, Chairman, presiding.

PRESENT:

JAMES LOCKEY, Chair
JOHN POSTON
ROBERT W. PRESLEY
GENEVIEVE ROESSLER*
PHILLIP SCHOFIELD

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

ALSO PRESENT:

TED KATZ, Designated Federal Official
HANS BEHLING, SC&A*
ARJUN MAKHIJANI, SC&A
JOHN MAURO, SC&A*
JAMES NETON, NIOSH OCAS
LARRY ELLIOTT, NIOSH OCAS
LAVON RUTHERFORD, NIOSH OCAS*
MICHAEL RAFKY, ESQ., HHS
LARA HUGHES, NIOSH OCAS
EMILY HOWELL, HHS*
LAURIE BREYER, NIOSH OCAS*
NANCY ADAMS, NIOSH Contractor*
SARAH CUMMINGS, The Public*

*(present via telephone)

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

TABLE OF CONTENTS

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

P-R-O-C-E-E-D-I-N-G-S

(9:30 a.m.)

CHAIRMAN LOCKEY: Let's see, who is on the telephone right now?

MR. KATZ: It is on mute.

CHAIRMAN LOCKEY: It's on mute right now?

MR. KATZ: Okay, let me do roll call first.

Okay, good morning everybody. This is the Advisory Board on Radiation and Worker Health. This is the Oak Ridge Hospital Work Group, our first meeting. And we are going to begin with roll call beginning with members in the room.

MEMBER PRESLEY: Robert Presley.

CHAIRMAN LOCKEY: James Lockey, Chair.

MEMBER SCHOFIELD: Phil Schofield.

MEMBER POSTON: John Poston.

MR. KATZ: And do we have any Board

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

members on the line?

CHAIRMAN LOCKEY: Gen was going to call in.

MR. KATZ: Yes, she was. I got an email from her. Gen, are you with us yet?

Okay, then carrying on, OCAS and ORAU Team in the Room.

MR. ELLIOTT: Larry Elliot.

DR. NETON: Jim Neton, OCAS. Not conflicted.

DR. HUGHES: Lara Hughes, OCAS. Not conflicted.

MR. KATZ: And Larry Elliott is not conflicted as well, I believe.

MR. ELLIOTT: Yes.

MR. KATZ: And on the line, OCAS/ORAU team and speak to conflict, please.

MR. RUTHERFORD: LaVon Rutherford, OCAS. Not conflicted.

MR. KATZ: Okay and then SC&A in the room.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

DR. MAKHIJANI: Arjun Makhijani, not conflicted.

MR. KATZ: SC&A on the phone.

DR. MAURO: John Mauro. Not conflicted.

DR. BEHLING: Hans Behling, not conflicted.

MR. KATZ: Welcome all of you. And then federal employees or contractors in the room.

MR. RAFKY: Michael Rafky, HHS. Not conflicted.

MR. KATZ: And on the line?

MS. HOWELL: Emily Howell, HHS. Not conflicted.

MS. ADAMS: Nancy Adams, NIOSH contractor. Not conflicted.

MR. KATZ: Welcome again. And then do we have members of the public on the line?

MS. CUMMINGS: Sarah Cummings.

MR. KATZ: I'm sorry, can you --

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

oh. Sarah Cummings?

MS. CUMMINGS: Yes.

MR. KATZ: Welcome, Sarah.

MS. CUMMINGS: Thank you.

MR. KATZ: Any other members of the public or staff of congressional offices on the line?

(No response.)

MR. KATZ: Okay, then. For everyone on the line, let me just remind you please mute your phones except when you are addressing the group. And for those of you who don't have a mute button, use *6. Press *6 and that will mute your phone. If you want to come back on again to be able to speak, just press *6 again. And if you need to leave the call at some point, please hang up and dial back in. Don't put your phone on hold because it will disrupt the line for everyone else.

Thank you. And Jim, it is yours.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

CHAIRMAN LOCKEY: Well welcome everybody. This is the Oak Ridge Hospital Working Group, and I distributed sort of an agenda. I would like everybody to look at that agenda and this modified add to it or subtract to it as we see fit and then we will work forward.

I would sort of like to have a go of this that we are complete, if we can get complete for your task today and if we can try to bring this to a close, that would be absolutely incredible. That would go with our track record of the last committee I chaired we brought to a close. So I want to stick like glue to that track record because I like that philosophy, bring things to a close.

What I did on this was I sort of outline some of the things I think I did this and then I got the email from, I think from Lara. And it sort of outlines the responsibility, the recommendations, the

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

original petition cohort which was from '58 through '59 and then the NIOSH class definition that they expanded from May 1950 to December 1959. And then I also listed that there was an SEC granted for Oak Ridge Institute of Nuclear Studies for those who were employed from May 15, 1950 through 1963. So I sort of wanted to give everybody the time frame so we all are sort of starting on a level surface.

Any additions or corrections to this preliminary agenda? Anybody have any suggestions?

MEMBER ROESSLER: Jim, I want to check in. This is Gen Roessler.

CHAIRMAN LOCKEY: Gen, welcome. We are sorry for your loss.

MEMBER ROESSLER: Well, I got on the phone late, too. It seems I am at the age where a lot of people are dying, and it is just kind of tough. But anyway, I can hear

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

you fine.

CHAIRMAN LOCKEY: Well welcome. We are glad you are able to join us today, getting up so early. What time is it there?

MEMBER ROESSLER: Oh, it's not bad. I'm always in the office by now. It is 8:30 or so here.

CHAIRMAN LOCKEY: So no additions or corrections?

MEMBER ROESSLER: Not that I know of.

CHAIRMAN LOCKEY: Okay. So then --

MEMBER ROESSLER: Ted, remind me. How do I mute? I have forgotten.

MR. KATZ: It is *6.

MEMBER ROESSLER: *6. Okay, thanks.

MR. KATZ: You're welcome.

CHAIRMAN LOCKEY: So one of the things that I did earlier on this week is I reviewed the SEC petition evaluation that you

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

had put together. And NIOSH did this pretty much on their own because of conflict of interest issues. And you are the one that actually wrote the whole document. Right?

DR. HUGHES: That is correct.

CHAIRMAN LOCKEY: And I thought it was well written. But I did go through it and I came up with some additional questions or clarifications I need from that.

DR. HUGHES: Okay.

CHAIRMAN LOCKEY: Did anybody else have a chance to go through that again?

DR. MAKHIJANI: Yes, I went through it.

CHAIRMAN LOCKEY: Okay. So I think that might be a good starting point, just to run through this one time and see if anybody has any points that I could make or questions they would like to ask. And do you want to start with that or I can start.

MEMBER PRESLEY: You go ahead and

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

start.

CHAIRMAN LOCKEY: Okay, let me start. I thought it was very complete. Okay? And when I re-reviewed it, I saw the interaction between the Oak Ridge Institute for Nuclear Studies and the interaction between Oak Ridge Hospital. They were both run by the Atomic Energy Commission on separate contracts.

DR. HUGHES: Right.

CHAIRMAN LOCKEY: And the nuclear studies part of it was in a separate wing.

DR. HUGHES: Yes.

CHAIRMAN LOCKEY: One of the things you said in your report was --

MR. KATZ: Jim, I'm sorry. Can I interrupt for a second?

Do we still have the folks on the phone?

MR. RUTHERFORD: Yes.

MR. KATZ: Okay, good. We just we

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

had a message in the middle of that, which was odd. But thank you. Sorry, Jim.

CHAIRMAN LOCKEY: One of the things that you were reporting in your report was that the laundry was washed separately. It was kept separate.

DR. HUGHES: That's correct.

CHAIRMAN LOCKEY: And that this is on page 14 at page 46. And that the housekeeping services, the maids, the orderlies, the janitorial staff, per contract were not to enter controlled areas.

DR. HUGHES: That is correct. That is stipulated in the contract.

CHAIRMAN LOCKEY: Okay.

DR. HUGHES: Now the question I asked is, this ORINS Hospital only consisted of laboratories and patient wards. It didn't have the kitchen operating. So I am not sure where the housekeepers would go if they were not allowed to go into the laboratories or the

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

patient areas. It is not that clear in the information we have.

CHAIRMAN LOCKEY: So the Oak Ridge Hospital had their own housekeeping staff.

DR. HUGHES: Yes.

CHAIRMAN LOCKEY: Yes. And the ORINS, did they have their own housekeeping staff or we don't know?

DR. HUGHES: We don't know. I mean, it is a much smaller entity. So from the information provided in these contracts, it seems like they relied on the hospital for a lot of their -- to keep it going. They used the hospital supply room. They used the kitchen. They used the pharmacy, I believe, the blood bank, the radiology department. Any of those big items that a hospital has that they did not. They just were a little wing on the side and they had laboratories, actually kept laboratory animals there as well. And they had patient wards.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

They did not have an operating room until 1955. So it looks like they relied on the Oak Ridge Hospital for staffing, other than nurses and physicians. But since ORINS had realized that the patients would excrete radioactive material, the laundry was separate. The laundry was actually sent to Oak Ridge National Lab for taking the washing. Whereas, the Oak Ridge Hospital was a community hospital. They would not do these. I believe they had a contract with some kind of company that would do their laundry.

CHAIRMAN LOCKEY: So the laundry was separated into a separate area.

DR. HUGHES: Yes, because they realized ORINS had the contamination potential versus the regular hospital.

CHAIRMAN LOCKEY: So it would be more logical that if the contract said that the housekeeping from Oak Ridge could not enter ORINS, ORINS most likely had their own

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

housekeeping staff, but there is no documentation in fact that was the case.

DR. HUGHES: No, I have not been able to find anything.

CHAIRMAN LOCKEY: That was one of my questions. So we really don't have an answer as to the contract said separation, but we don't know if it really occurred or not.

DR. HUGHES: Right. Well, there was a contract in place that Oak Ridge Hospital supplied housekeepers and maids. And there were some stipulations in the contract such as they were not to enter contaminated or restricted areas.

But if you read this one document that is referenced in the report, the way ORINS stipulated a restricted area was they had this meter that was calibrated in three colors; red, orange, and green. And only the red area was what they considered a restricted area, which was 6.25 microrem per hour.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

CHAIRMAN LOCKEY: And so Oak Ridge Hospital was under contract to supply janitorial support to ORINS.

DR. HUGHES: Yes. The two hospitals had a contract with each other.

CHAIRMAN LOCKEY: All right. So then they did have access to that area but just not the restricted areas there.

DR. HUGHES: I believe so.

CHAIRMAN LOCKEY: Okay. I understand now. That was what I was driving at.

DR. HUGHES: As far as we can tell from the information we have, yes.

DR. MAKHIJANI: Would that be 6.25 millirems per hour? You said micro.

DR. HUGHES: Milli. I think I said that wrong in the presentation to the Board because somebody pointed it out to me.

CHAIRMAN LOCKEY: One other question I had was on page 12. That was the

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

report or the article that was published in the Journal of American Medical Association by Brucer.

DR. HUGHES: Right.

CHAIRMAN LOCKEY: It says Brucer 1951, but it was published in 1980. And I ordered the article, but I haven't gotten it yet.

DR. HUGHES: Okay. It was published in 1951, I believe.

CHAIRMAN LOCKEY: It says Brucer 1951, but I looked at the bibliography. That's why I assumed it was '51, but the reference in the bibliography is Brucer 1951, Radioisotope Hazards, JAMA, 1980. So, I --

DR. HUGHES: Okay, that must be a typo. I apologize. No, it is 1951. He wrote it in 1951. I am not even sure if he was around in 1980.

CHAIRMAN LOCKEY: Okay, I just --

MEMBER POSTON: It might have been

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

a reprint.

CHAIRMAN LOCKEY: That is what I was wondering whether it was a reprint.

DR. HUGHES: No, it is a typo.

MEMBER POSTON: We did that for the 50 year anniversary of the Health Physics, we did reprints of a lot of articles.

CHAIRMAN LOCKEY: Okay, maybe that is the reason I couldn't find it.

DR. HUGHES: No, I apologize. I typed this, and it is most likely a typo.

CHAIRMAN LOCKEY: It is a minor point, but do you remember that article?

DR. HUGHES: Yes.

CHAIRMAN LOCKEY: Did they talk at all about radiation control measures at Oak Ridge Hospital at all?

DR. HUGHES: No, but this article, it talks at length about monitoring they did during an operation, actually several operations. I think I have the table in here.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

It talks about removal of a lung, an autopsy, a laparotomy. And if you look, this is Table 5.5 in the report --

MEMBER POSTON: What page are you on?

DR. HUGHES: I'm sorry, 20. Page 20, the bottom table.

That was adapted from this reference. And these were all measurements that were done during an operational procedure that would have been done in an operating room. And we know at the time this was recorded and written, ORINS did not have operating rooms and this would have taken place in Oak Ridge Hospital.

CHAIRMAN LOCKEY: In the hospital, right.

DR. HUGHES: I do not think they actually were too concerned about using the Oak Ridge Hospital facilities. So any kind of autopsy or anything that would go on in

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

pathology or in the operating room up until 1955 would be in the Oak Ridge Hospital. I am fairly confident about that.

And as for the morgue, all of the deceased patients would be stored in the morgue. I think it might talk in this article, it talks about it in some reference that these patients would have to be held in the morgue for quite a while because a lot of them came in from fairly far away because they came to this place to receive cancer treatment and unfortunately a lot of them did pass away while they were there.

So they did use the morgue and they did autopsies on people because they wanted to investigate how the radionuclide treatments would work on these people.

So we know the morgue was in the Oak Ridge Hospital. So any kind of staff support that would be needed to maintain it, to clean up, that probably would have been

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

people employed by Oak Ridge Hospital.

CHAIRMAN LOCKEY: Okay.

MEMBER PRESLEY: Did they talk about having more than one morgue or a separate area or anything like that where they might have done these different?

DR. HUGHES: No, but I found some documentation when they were talking about, I think, in the mid-'50s, the mid-1950s they started talking about building a new Oak Ridge Hospital. And it was built. It was opened in 1960 and there was communication going on between the Atomic Energy Commission and ORINS talking about how much they relied on Oak Ridge Hospital for services and what kind of additional facilities they would need in order to continue operation when the Oak Ridge Hospital was moved, for example, adding a morgue. When the Oak Ridge Hospital moved to a different place, ORINS was expanded. It received an additional wing of what before was

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

Oak Ridge Hospital became ORINS and the rest of the old hospital was torn down. A new hospital opened up down the street.

So I think after 1960 when they had the new Oak Ridge Hospital, they did eventually have a morgue facility and they might have had a kitchen facility because they could not rely on Oak Ridge Hospital being close by. So they expanded operations when they had to, but as long as they were connected to Oak Ridge Hospital, they relied on services from them. That is what I found out doing all this research.

DR. MAKHIJANI: I had a question about the kitchen piece. Because we don't know whether they had a kitchen and they were still having some kind of interchange between the new hospital and perhaps this 1959 end date.

DR. HUGHES: Well 1959 is the end of the covered period.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

DR. MAKHIJANI: Oh, that is a DOE$_{24}$-

-

DR. HUGHES: Yes.

DR. MAKHIJANI: -- thing. Okay.

CHAIRMAN LOCKEY: One of the things that got my attention on the report, which is very comprehensive, was on page 18, on the top of it. That is when people were eating in the cancer research hospital that their utensils, I guess, went back to Oak Ridge Hospital, if I am reading right.

DR. HUGHES: Right.

CHAIRMAN LOCKEY: So I am familiar with cross-contamination and all the things which can occur in a hospital. So that certainly is a path, an additional path for cross-contamination, sometimes relatively high levels, depending on the situation that the patient is going through. So that was a good pick up.

Does anybody else have any

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

questions about the report? Does anyone want to raise any particular issues about it?

The impression I got reading through this again and after your presentation originally, through it there certainly was a potential for cross-contamination. Now the next question is I think the questions that were raised at the last meeting. What can we do to find out in fact whether any monitoring was taking place at Oak Ridge Hospital.

And so you had put together a fact sheet for us. And maybe I will ask you to go through what you have been able to do since our Board meeting.

DR. HUGHES: Since this is all listed here, everything we did before the evaluation report was completed, this is our standard data capture protocol. And since the last Board meeting, actually, all I did was follow up with the contact Mr. Presley had provided, and I was able to contact all but

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

two of those. But it has not provided any more information than we already had.

CHAIRMAN LOCKEY: How many people were you able to --

MEMBER PRESLEY: Did you talk to Dr. -- the lady doctor?

DR. HUGHES: Yes, I did. I'm not sure, can we discuss the names?

CHAIRMAN LOCKEY: Yes.

DR. HUGHES: Okay. Yes, I did.

MEMBER PRESLEY: Okay.

DR. HUGHES: She worked -- well, I am not sure. She did not start until the mid-1960s at ORINS. So she was very knowledgeable but she didn't state that she knew a lot that went on in the '50s. And that is essentially the same response I got from a lot of people.

MEMBER PRESLEY: Yes, and the nurse I talked to, she started in the '60s, too. But people that I talked to said they had a very, very explicit group of people that

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

worked with the patients, and they were all monitored, nothing would ever come up with any monitoring data.

I talked to people there in Oak Ridge that say that yes, X-10 was an early place where they did the monitoring data. And X-10 tells us that they have no data whatsoever. And I have heard that from three different people, and one of them was an industrial hygienist that worked with the badges. And he plainly stated that ORNL did their monitoring in the early days, but being able to come up with any --- and then did you all contact the company that did the monitoring?

MEMBER ROESSLER: Bob, could you get closer to the microphone?

MEMBER POSTON: She wants you to speak closer to the microphone.

MEMBER PRESLEY: Did you all contact the other company that has done the

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

monitoring for PLDs?

DR. HUGHES: We have not found any evidence that Oak Ridge Hospital had monitoring. Well, we found evidence. We have not found who did the monitoring at Oak Ridge Hospital.

We found documentation, and the information came from the Tennessee Department for Environment and Health, I believe. They sent copies of the radioactive materials license that Oak Ridge Hospital had. And in there, in 1957 there are some comments or some exchange when the AEC tells Oak Ridge Hospital that they need to start monitoring the people in the radiology department with film badges. And they respond that yes, we are planning to do this and ORNL will provide the badges.

And just from the documentation that we have, it looks like they started this in 1958, but we have not found the data.

And even so, if we found it, it

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

doesn't look like there is anything before 1958. So it would maybe cover a year, if we found the data. And the major issue was the internal. We cannot do internal dosimetry dose reconstruction. And we know there was an internal potential because of the radioiodine, mainly.

Now we already know that ORINS didn't do internal monitoring in the 1950s. That is the reason they are -- became an SEC. I mean, we can look further, but I just don't believe there is -- if ORINS didn't do internal monitoring because they didn't perceive there was an exposure potential, I think it is fairly reasonable to assume that Oak Ridge Hospital didn't do internal monitoring because they would not have felt that it was a need to monitor people at that time.

MEMBER PRESLEY: Did you get the same comment that I did from the paper you

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

talked to? It wasn't just everybody that could walk into ORINS from Oak Ridge Hospital.

DR. HUGHES: That's correct, but all of the people I talked to worked there in the '60s when there were two separate facilities, and Oak Ridge Hospital was, I don't know, a block or two down the road. I haven't seen how the buildings are laid out.

So I am not sure. Was it different in the 1950s when the two facilities were attached or had doors? I don't know. I mean, I found some documentation when they talked about the incident that happened in 1958. And some discussion of this incident was oh, we went and closed the doors to Oak Ridge Hospital and sealed them so that there would be no foot traffic back and forth. So I'm not sure that that indicates that there was foot traffic before because they made an explicit point to seal the doors, to close the doors. Were they opened before? I am not sure.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

CHAIRMAN LOCKEY: Radiology procedures in the ORs were at Oak Ridge Hospital.

DR. HUGHES: Yes.

CHAIRMAN LOCKEY: So there were would have been passages back and forth. And I remember how you said that door was closed six or seven days after the spill.

DR. HUGHES: Yes. Which is kind of --

CHAIRMAN LOCKEY: Now when you said that there may be a specific team, do we have any knowledge of who would make up that team? There is nothing available I presume.

MEMBER PRESLEY: The nurse that I talked to said that there was 11 RNs, is that the degree nurses, 11 RNs and about four or five LPNs that made the team up when she worked there in the '60s. And those were the people that took care of all of the patients. I mean, there wasn't anybody from Oak Ridge

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

Hospital that came over there, they said, as far as nurses. She said that in the '60s that they were the ones that took care of the patients.

CHAIRMAN LOCKEY: That was in the '60s?

MEMBER PRESLEY: Yes.

CHAIRMAN LOCKEY: And I understand we really haven't talked to anybody who has worked there in the '50s.

DR. HUGHES: I have talked to one physician who was actually a physician employed at Oak Ridge Hospital. He said that he would be asked to go over there for procedures. And he would go into ORINS actually to do procedures like an amputation or such things.

So, apparently, there was --

CHAIRMAN LOCKEY: Was he monitored? Did he say?

DR. HUGHES: No, he said he was not

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

monitored. He didn't think he needed to be. It's somewhat difficult to find people that worked there in the '50s.

MS. BREYER: Hi, Ted?

MR. KATZ: Yes.

MS. BREYER: Hi, this is Laurie Breyer, OCAS. I didn't mean to interrupt, but I received an email that people on the phone are having a hard time hearing.

MEMBER ROESSLER: It is a little bit hard to hear. I could hear Bob when he got closer to the mic, but it is very difficult to hear Lara.

MR. KATZ: Thanks, Laurie. We have a few mics around here. We just have to work harder at speaking closer to the mic. Thank you.

MS. BREYER: Okay, thanks.

CHAIRMAN LOCKEY: All right, John?

MEMBER POSTON: I don't have any specific questions.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

CHAIRMAN LOCKEY: All right. Anybody else have any comments?

DR. NETON: I would just like to add a couple of things. I think Lara mentioned this, but I would just like to emphasize that you have a standard hospital here with a complete diagnostic radiology department as well as a nuclear medicine department ongoing simultaneously with the ORINS work. All of that exposure is also covered. It is not just the bleed over material from Oak Ridge Institute of Nuclear Studies over in the hospital. But by the way the program is operated, the hospital exposures are also covered, and we cannot find any monitoring information for the standard hospital activities that occurred within that facility. So that is a layer on top of all of this as well.

And recognizing Lara mentioned that they had up to 25 millicuries of iodine-131

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

for diagnostic purposes at any given time in that hospital and did, I assume, thyroid ablation studies or something like that.

DR. MAKHIJANI: That is in the hospital?

DR. NETON: I believe this is part of the hospital. Correct?

DR. HUGHES: Yes, that is correct.

DR. NETON: So it is above and beyond that. So you have several things going on at the same time. And that kind of adds to the complexity or ability to do any kind of reasonable dose reconstruction on these patients. Anytime you get pockets of little things going on like that where nothing was covered, it is very difficult for us to come up with any sufficiently accurate dose estimates. I just wanted to throw that in.

MEMBER SCHOFIELD: Have you run across like any roster of people who worked at the two facilities?

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

DR. HUGHES: There is annual reports available for Oak Ridge Hospital and ORINS. So and most of those list their staff, yes.

But I am not sure, I mean, the hospital reports list their physicians, their radiologists. They do not go down into detail as to clerks and accountants and nurses. But they do list their doctor staff not in very much detail.

I found -- one number I found yesterday, about 250 employees in 1948, I believe. It might have been reduced a little bit after that in years. So we are looking at a staff of about 250 at any given year.

CHAIRMAN LOCKEY: That is at Oak Ridge Hospital?

DR. HUGHES: Yes.

CHAIRMAN LOCKEY: And do you have the names of those people?

DR. HUGHES: Not all 250, no.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

CHAIRMAN LOCKEY: No?

DR. HUGHES: Maybe some of -- the director and some physicians. But no, we do not have the names of all of these people.

CHAIRMAN LOCKEY: Okay.

MEMBER ROESSLER: Lara, I have a question.

DR. HUGHES: Yes?

MEMBER ROESSLER: This is Gen. You were talking about people who worked there, and I was trying to get more information from your report to see whether you would have talked to some of the people that I know are still alive, people we know through Health Physics. And I didn't try to contact anybody until after I got your report, and I haven't heard back from one of these.

But I am wondering if you went through the list of people who did work there and then checked to see if they are still alive and still in the area. So I guess my

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

main concern is, has everybody been interviewed who could have been there in the '50s who is still alive?

DR. HUGHES: Yes, I can't tell you that I interviewed everybody that would have worked there. I mean, I have looked at the roster from the hospital annual reports, and I tried to see who I could still contact. And I've interviewed one physician. Some have declined, they didn't want to be talked to.

So I am not saying I have exhausted everything there possibly is. I tried to find people that might have information and that are still around. I mean, if you have suggestions who we could still talk to.

MEMBER ROESSLER: Well I have contacted one person. I have not heard back.

DR. HUGHES: Okay.

MEMBER ROESSLER: But I suspect he was involved around that time. And while I guess I have your attention, I will ask one

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

more question.

In the petition, I noticed the name of a person who apparently worked there. The person's name was put in there by the claimant or by the claimant's spouse. And I noticed that person is still listed in Oak Ridge. And I guess I won't say the name, but I was wondering if that person had been interviewed.

DR. HUGHES: I would have to check. I don't recall right now what the name is.

MEMBER ROESSLER: Yes, it is something just to check. I don't think you want to mention the name.

That is all I have, but I guess my attention is to the point that in the '50s, there probably still are some people who maybe some of us even know personally. And I am just wondering if they were all interviewed.

CHAIRMAN LOCKEY: Gen, are you suggesting -- let me ask you a question. Are you suggesting that when I looked at all of

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

this information at Oak Ridge Hospital, there is no internal monitoring data and they did isotope studies there. So that in itself is problematic just for the hospital, let alone cross-contamination in relationship to the cancer hospital.

MEMBER ROESSLER: Yes, I think you are right. And I think it was Jim Neton who just spoke about the monitoring information. If we are really convinced, and it sounds pretty convincing, that over and above everything else, there just was not monitoring information. And you know, some of these other questions really aren't pertinent.

CHAIRMAN LOCKEY: I mean, that is sort of where I am getting to. If there is no internal monitoring data, there might have been external monitoring data in relationship to radiographic procedures. But in relationship to the radioisotopes, if there is no monitoring data available at Oak Ridge

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

Hospital for their own internal medical procedures, that in itself creates a problem for that population during that time frame.

MEMBER ROESSLER: I agree.

CHAIRMAN LOCKEY: Let alone the potential for cross-contamination with the research hospital. I guess I am not convinced that interviewing additional people at this time is going to be necessarily that helpful, unless somebody has other comments on that or another perspective on that.

DR. MAKHIJANI: I actually agree with you. You know, just listening to what Lara said, the most, I guess, relevant piece of information that is direct is this doctor who actually did procedures in ORINS, just on that cross-contamination thing. He was not monitored for external or internal. Right?

DR. HUGHES: No.

DR. MAKHIJANI: So that, I mean the first monitoring would normally be external

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

when you are looking at the history. People had a badge stuck to them if they felt there was some exposure potential. And now we know there was some. So it kind of is a very rich piece of evidence, even though it is a single piece of evidence, I think.

CHAIRMAN LOCKEY: I agree. I would agree with that. Any other comments about this?

MEMBER POSTON: I have an unpopular comment. To me, it is unlikely that these exposures were large. And so I know what the regulations and the way this committee operates. If we declare it an SEC because we can't reconstruct doses, then the path is clear.

But I don't see that the doses are large and -- or likely to have led to cancer. With a 40 percent chance of getting cancer without radiation exposure, it just doesn't make sense to me that we should declare this

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

an SEC and go on, but I understand that is the decision that is facing us right now.

MR. ELLIOTT: In that suggestion, are you indicating you don't see health endangerment? I mean, because the rule says that we could identify a situation where we could not reconstruct the dose. If that comes to pass, then we have to use the second prong of the test that is available and say it was health endangered.

MEMBER POSTON: Well, you have stated it better than I, yes. I suspect the exposures were low. I am not denying that the exposures probably occurred. But you know, 30 millicuries of iodine-131 is not a huge amount.

I think Lara reported three curies total for a year. So that is not a tremendous amount of radioactivity. Cross-contaminations of utensils and so forth is a minor concern.

So I am not questioning the fact

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

that these folks were exposed to radiation. They were using it, both diagnostic and therapeutically. So there is no question they were using it. But I don't see a health endangerment at all. I just don't. These are standard medical procedures that were pretty well established. Iodine-131 goes back to the 40s.

CHAIRMAN LOCKEY: I think we have to talk about it. I will need some direction here on this because I have --

MR. ELLIOTT: Well our evaluation report finds, correct me if I am not speaking correctly here, Lara or Jim, that we feel that we can't reconstruct the dose, particularly internal dose, for this situation for that time period. And so then the regulation would require us to evaluate whether health was endangered or not. And we have come to the position in the report that we believe health might have been endangered.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

So certainly the Board can take that into consideration and determine whether it is your feelings and perspective that health was endangered or not. If you can agree on the first prong of the test then you can challenge the second prong that we have positioned ourselves on.

MEMBER POSTON: This is the reason I set down at the meeting. You know, because what it says, what was presented to us says evidence indicates, review indicates that an undetermined amount of workers in the class may have received chronic internal and external exposures from a large variety of internal and externally administered radionuclides, blah, blah, blah. It doesn't say whether that is health endangerment or not.

DR. NETON: Well, you are getting into a conundrum in the way this decision is made. And that is, if you can't reconstruct a

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

dose, you can't put an upper bound on what that dose may have been. And that by default is a determination of health endangerment. That is just the way the regulations read.

And I don't disagree with you that by and large most of these exposures may have been small but we have never been able to go there where you can do a probability of causation calculation to establish health endangerment. That has just never been part of the way this has been operated.

MEMBER POSTON: I understand what the rules are and what the guidance is. I am just giving a logical evaluation based on 52 years experience in the field in terms of radiation exposures and comparing that to potential health endangerment.

DR. NETON: And you also may want to think about the way the probability of causation calculations are done in this program to the 99th percentile. Because those

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

can get some fairly high TCE values for what a normal health physicist might consider a fairly low level exposure, particularly for iodine.

MEMBER ROESSLER: Jim?

DR. NETON: Yes.

MEMBER ROESSLER: Jim, it is hard to hear you.

DR. NETON: Okay, I'm sorry. Particularly for isotopes like iodine. There is sort of a periodic table of nuclides administered here. So it would be very difficult for us to do any type of organ-specific calculation or, you know, the range of the antimonies, the bariums, the cesiums, the chromiums, the cobalt, because those all have different, as you know, metabolic behaviors. So for us to be able to say with confidence that we can bound the exposure to any of those organs under any of those circumstances would be very difficult.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

MEMBER POSTON: I understand. I have got my comment on the record.

DR. NETON: Okay. I understand what you are saying.

MEMBER POSTON: I am not trying to be legal. I am trying to be logical.

DR. NETON: Okay.

MR. ELLIOTT: At the same time, I would offer that we would be interested in what the Board's consensus opinion is about health endangerment because there are other situations where we might find that we can reconstruct the dose but we still don't think there was enough there to endanger health, per se.

MEMBER SCHOFIELD: But how do we know --

MR. ELLIOTT: Texas City Chemicals is an example. You know, there was less than a barrel of uranium processed there in a short amount of time. So was health really

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

endangered? They were exposed.

MEMBER SCHOFIELD: Yes, there are facilities like that. I understand that.

MR. ELLIOTT: Go ahead. I'm sorry to interrupt you.

MEMBER SCHOFIELD: No, no. I mean, I agree with that point. I am just simply saying that in this particular case, and this is where I will refer to Dr. Poston here, what is the likelihood that, say, one individual could actually pick up enough that they may have health endangerment? I mean, I don't know, and that is why I am asking you.

MEMBER POSTON: Well, the words that you use, likelihood and may are so uncertain that it is hard to know. But if you look at the total inventory of the radionuclides that are there. Look at the standard procedures that were in place in the '40s, late '40s and early '50s in diagnostic radiology, that is huge. And they will have

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

60 years or more of experience with the health endangerment and all of the stuff that occurred in the '30s and '20s when folks were having amputations and no shielding around the tubes and all of those kinds of things. And the progress especially in Tennessee with the largest health physics division in the country existed there at Oak Ridge National Lab and they are monitoring what is going on, according to what has been said here. I think the health endangerment and the potential exposures are low -- both. I recognize they can't reconstruct them.

But it is basically, again, I don't want to be the old fart here, but I have been doing this for 52 years and so I am pretty familiar with what went on back in the '50s.

MEMBER ROESSLER: I would like to join in with what Dr. Poston is saying. I am older than he is so I suppose --

(Laughter.)

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

MEMBER POSTON: I defer to you, Dr. Roessler.

MEMBER ROESSLER: And mine is not the point of health endangerment although I think that is an interesting discussion we need to have, but I have a hard time based on just logic in trying to understand what was going on there, knowing the people who worked there; [identifying information redacted], whom I knew, and Dr. Brucer, and I certainly read a lot of his documents. They were very knowledgeable people. [identifying information redacted] knew a lot about radiation effects. Dr. Brucer certainly understood how to do monitoring. He understood the basics of radionuclides.

And I guess I am still a little bit uncomfortable with the completeness of the search for monitoring data. I can't picture that Brucer would have worked in the laboratory without keeping some sort of

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

records. And I guess I won't feel comfortable until I know that the search has been complete.

MEMBER SCHOFIELD: I would, to just add one thing to your comment. And that is the fact that since we don't really know who the record keeper of these -- who has these files, I mean it would be great if we had them, but since we don't, do you know if either of these gentlemen kept personal notebooks?

MEMBER ROESSLER: That is my question. I would think that Brucer, in particular, would have kept notebooks. And I am just, my question is in regard to interviewing people who might have known him.

And also perhaps there are just a few little leads here that I think need to be followed through a little thoroughly. The discussion about the history of Oak Ridge Hospital and the book that has come out and

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

the comments in Lara's report says the book will contain some oral histories and may have some useful background information. I am just wondering, did you have a chance to look at that or is that something that hasn't been completely looked at yet?

DR. HUGHES: The book has not been published yet. It is going to be published in December of this year.

MEMBER ROESSLER: So you haven't seen a rough draft or anything?

DR. HUGHES: No, I cannot get a rough draft. They will publish, and they will sell it to me if I want it, but there is no other way to get it.

I might like to add that we know that ORINS did external monitoring for their workers. We have that data. If somebody files a claim and that data is found and is retrieved by ORAU.

The issue with the ORINS was that

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

there was no internal monitoring. And we did interview people during the SEC evaluation for ORINS, and they all stated that they did not do internal monitoring in the 1950s although they started with their internal monitoring in the 1960s using a whole body count. So we already have that information.

MEMBER ROESSLER: It would seem that -- and my question again goes back to Marshall Brucer. At that time in the '50s, people knew about thyroid monitoring. And it seemed like others were doing thyroid monitoring when they were working with iodine. And I just find it hard to believe that they didn't do it there.

MR. RUTHERFORD: Gen, this is LaVon Rutherford. Can you guys hear me?

MR. KATZ: Yes, very well.

MR. RUTHERFORD: Okay, I tried to come on two or three times, and for some reason I wasn't coming through.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

I do want to point out that three individuals that we did interview for the ORINS study were individuals that worked in health physics in the '50s at ORINS, and all three indicated that there was no internal monitoring until 1961, I believe.

MEMBER ROESSLER: Okay. Well, that is good to know.

MR. RUTHERFORD: In fact, one of the health physicists went on to work at Oak Ridge National Lab and at INL, I believe.

MEMBER ROESSLER: Can any names be mentioned here?

MR. ELLIOTT: Yes. You can mention their names because they are employees of the AEC at that time. We are not indicating that they have a claim or that we are talking about their personal identifiable information. So they can be named.

MR. RUTHERFORD: Okay, I will mention names. I remember [identifying

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

information redacted], Roger Cloutier, --

MEMBER ROESSLER: Oh, okay.

MR. RUTHERFORD: -- and a [identifying information redacted]. I can't remember [identifying information redacted]'s first name who worked in [identifying information redacted]. He worked a '50 to '54 period, if I remember correctly. Again, I am qualifying this. This is off the top of my head. And then he worked at Oak Ridge National Lab and then moved on, I believe, to INL.

MEMBER ROESSLER: Okay, you just removed a lot of my concern, if you interviewed Roger Cloutier because --

MR. RUTHERFORD: Yes, in fact, I am assuming that you all have access on your computers. You can go on and look in the Advisory Board's folder, and if it is not in the Oak Ridge Hospital one, I will move it over to it right now and you can get access to

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

that interview.

MEMBER ROESSLER: Okay. I looked there. I didn't see it.

MR. RUTHERFORD: Okay.

DR. HUGHES: I would like to add I actually talked to him last week. So he was actually interviewed twice for this.

MR. RUTHERFORD: Okay. Roger Cloutier, correct?

DR. HUGHES: Roger Cloutier, yes. Sorry.

MR. RUTHERFORD: Okay.

MR. ELLIOTT: That may not be logged into the --

DR. HUGHES: Not, it is not. It needs to be cleared, and it will eventually be in the Board's folder once it has gone through the review process.

MEMBER POSTON: I want to assign myself a task. My recollection is that the CDC -- not CDC -- the Old Bureau of Rad.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

Health had a set of video tapes of pioneers. Interviews were conducted by Laurie Taylor. And I believe that one of the folks that was interviewed on tape was Marshall Brucer. I have all those at home. And I would like to look at it and if there is one, I think that would be very valuable for you guys to look at.

So I will take that as a task. I will let you know as soon as I get home and get a chance to check in the library.

MEMBER ROESSLER: I would add to that, too, I have all of those vignettes that Marshall Brucer published. And I am sorry I didn't think to look at it before the phone call, but I certainly can look at those.

MEMBER POSTON: I am pretty sure he is there. They were conducted by Laurie Taylor, but I think Marshall was one of the interviewees, and it is about an hour, hour and an half interview. It is all on tape.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

MR. RUTHERFORD: This is LaVon Rutherford. I wanted to add something else that -- earlier during the discussion.

You know, one of the challenges that we have is that if we assume, okay, if we assume that health wasn't endangered and then if you make that assumption, we ultimately we have to do dose reconstruction. And in that process, where do we set our boundaries on a bounding dose for the individuals at the hospital with no data?

So, I mean, you start getting into the -- you know, I don't disagree with Dr. Poston or Dr. Roessler. But you get into this situation where we have to do a dose reconstruction for these clients and come up with a reasonable estimate of dose. And it becomes very difficult based on the information that we have.

MEMBER ROESSLER: I understand, LaVon, but I think we have to make sure. We

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

have to be comfortable with feeling we have pulled all the threads here.

MR. RUTHERFORD: Oh, I agree. Okay.

CHAIRMAN LOCKEY: So the only way I know how to deal with this issue is to go back and look at the medical literature and the studies that have been published in relationship to human health outcomes in radiologists and individuals who are working with these materials.

MEMBER POSTON: There are some.

CHAIRMAN LOCKEY: Yes, there are studies out there.

MEMBER POSTON: Well, I raised the issue. All I wanted to do was get it on the record.

CHAIRMAN LOCKEY: But if we go down that track, that would apply to almost everything.

MEMBER POSTON: Sure.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

CHAIRMAN LOCKEY: And the medical literature --

DR. NETON: That health literature is outside of contract and the way the regulation is written. I mean, I think we are bound by what the regulation states.

CHAIRMAN LOCKEY: Right. And that is what I was going to say. It doesn't allow for that. I mean, because if we really brought that information in, it would --

MEMBER POSTON: Yes, I understand.

DR. MAKHIJANI: Especially if there is a 99 percentile thing.

CHAIRMAN LOCKEY: Well, even beyond that, the regulation does not allow for a causation calculation to determine health endangerment. You just can't go there, the way it is currently structured.

Well, Gen, let me ask you then. Do you think then that we need to do some additional probing here to bring this to a

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

close, or do you feel that the outcome is not going to change no matter what we find?

MEMBER ROESSLER: That is a very leading question. I guess I would feel more comfortable. I would feel much more comfortable, first of all, to know that Roger Cloutier has been interviewed because he is one person who is still there who was probably involved and would be knowledgeable.

A few other minor things would be are there any leads in that Oak Ridge history book? Are there any leads, as Dr. Poston mentioned, in the Brucer material, both the video tape and then I offered to look through the vignettes to see if there is any indication in what they wrote that they did any monitoring.

So that is just I have a small reservation left yet about the completeness of the search for records.

CHAIRMAN LOCKEY: John?

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

MEMBER POSTON: I'm fine. I'm okay.

CHAIRMAN LOCKEY: Are you supportive of what Gen is saying? That is what I am trying --

MEMBER POSTON: Yes. Well, I took on a task. I am going to look at the tape. And if it is there, I will make it available to these guys and that will at least fill in a gap that we have. And I understand the difference between what the law says and what we are doing.

MR. ELLIOTT: We appreciate the Board members' interest in taking these action items because I think you are the ones that need to be satisfied here. We certainly could try to follow up on these things and then report back, but, again, if you would dig into this yourselves to the degree you either gain satisfaction or you tell us we need to pursue something farther, I think that would be

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

helpful.

MEMBER POSTON: I could walk into my office at home and I have a whole row of them. It is either there or it is not. My recollection is that it is there. So I will know the answer by Thursday.

CHAIRMAN LOCKEY: Bob? You are shaking your head no. What does that mean?

MEMBER PRESLEY: Well, I am going to be honest with you. If we go with this, I am afraid that we are going to open up a can of worms all over the United States. You have got hospitals at Los Alamos, Hanford, that's two to mention. You know, are we going to open a door here that says that all these hospitals that took care of workers over the early years are going to be becoming an SEC?

MR. ELLIOTT: Well, are those hospitals that you are referring to, Mr. Presley, designated as individual covered facilities, or are they part of the laboratory

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

proper so any evaluation for a petition or any class that is added would include those? Do you see my point?

MEMBER PRESLEY: I see your point, and that is something that I don't know. You know, as Los Alamos Hospital to me was part of the lab.

MR. ELLIOTT: I think it is included in the facility designation, the definition of covered facility.

MEMBER PRESLEY: Yes.

MR. ELLIOTT: But see here in this instance, the Oak Ridge Hospital is an entity, a facility of its own.

MEMBER PRESLEY: That is correct.

MR. ELLIOTT: So I think you need to understand that distinction and then your point may be well placed for those hospitals that are standing alone as a covered facility. If they are within the facility proper of that laboratory, then they are already

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

included in whatever evaluation or class that is being addressed.

DR. NETON: I have got a question now. Who is the actual owner of the hospitals? Did the Atomic Energy Commission actually own them? See in Los Alamos, they actually owned the hospitals up until 1964.

DR. HUGHES: Yes. It was owned, I believe, by the AEC during wartime. After the war it became privatized. It was run by several different companies under a contract with the AEC.

MEMBER PRESLEY: It was run -- the first contractor after AEC took it over was the county. Anderson County actually ran the hospital for a couple of years, as I understand. And then Methodist Hospital picked the contract up, and they ran it for 20 or so years. I don't know who has the contract now.

DR. NETON: But it was a DOE

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

facility or AEC facility?

DR. HUGHES: Yes.

MEMBER PRESLEY: Yes, an AEC facility. A government-owned, contractor-operated situation.

DR. NETON: Okay. That distinction, I think, is important.

CHAIRMAN LOCKEY: Are there any other hospitals out there like Oak Ridge Hospital?

DR. HUGHES: No. I checked our covered, the DOE covered facilities. The Los Alamos Medical Center is covered in the '50s, I believe. So I am not sure if it was before that in the '40s. I presume it did exist in the '40s, and I am not sure if it is covered with the Los Alamos National Laboratory site. I am not clear on that.

And the Hanford Hospital is not a separate covered facility. I do not know if it is included in Hanford. I don't know that.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

MEMBER PRESLEY: You have got Sandia. You have got Livermore.

CHAIRMAN LOCKEY: I don't even know if they have got a medical.

MEMBER PRESLEY: They probably don't have one. They probably used the city hospital.

MEMBER SCHOFIELD: Bob, to my knowledge, Sandia just had a small clinic on base which is actually run by the military.

MEMBER PRESLEY: That is probably true.

MEMBER SCHOFIELD: Bob, the point that you are raising is -- I don't have an answer. Is this going to create a precedent for other facilities?

DR. NETON: Each facility, I think, is judged on its own merits. I mean, if it is established as a covered facility under EEOICPA, then you would have to evaluate each one independently.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

The confounding issue at Oak Ridge Hospital is much of its affiliation with ORINS, where they did research with medical radionuclides. I suspect that a standard hospital that did standard diagnostic procedures, depending on what they did, I mean, we may or may not be able to reconstruct those.

MS. CUMMINGS: This is Sarah Cummings. Can you hear me?

MR. KATZ: Yes, Sarah.

MS. CUMMINGS: It is my understanding that the hospital was the U.S. Army Hospital, and then several years later, it was acquired by the city of Oak Ridge. So it was a government hospital, initially.

MR. KATZ: Thanks, Sarah.

CHAIRMAN LOCKEY: John, in relationship to the cancer hospital, would you have the same thoughts there about health endangerment that you raised at Oak Ridge

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

Hospital? It was granted as an SEC. So the question I am asking you, would you raise the same question about that facility as you did the Oak Ridge?

MEMBER POSTON: I haven't thought about it in detail, but I think I would, yes.

CHAIRMAN LOCKEY: So you are saying --

MEMBER POSTON: Yes.

CHAIRMAN LOCKEY: Okay.

MEMBER POSTON: But I understand we can't ride that horse too far.

CHAIRMAN LOCKEY: No, but I wanted to know if you would have distinguished between the two because of the procedures or what was going on at each of the facilities. It sounds like you would say then that they probably are equivalent in relationship to health endangerment or not health endangerment.

MEMBER POSTON: Yes, because of

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

shielding and the procedures and so forth that are done in therapy.

CHAIRMAN LOCKEY: Well, we are going -- I would like to come up with some steps forward here, steps that we are going to take. Gen?

MEMBER ROESSLER: Yes?

CHAIRMAN LOCKEY: The impression is I feel that you feel that it is very important that we proceed. We are interviewing Roger, getting the Oak Ridge Hospital book, and looking for the tapes of, is it Marshall Brucer -- Marshall Brucer.

MEMBER ROESSLER: I think Roger Cloutier has been interviewed. So that was a big item on my list. I am satisfied with that.

CHAIRMAN LOCKEY: So that is done. Do we need to re-do that interview?

MEMBER ROESSLER: I think it would be helpful, and I plan to do that.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

CHAIRMAN LOCKEY: Okay.

DR. HUGHES: Excuse me --

MEMBER ROESSLER: And then I think some minor items, but just if we are going to not come to a conclusion today, I would suggest that we do some of these further things. I will look at Marshall Brucer's actually printed they were called vignettes, and they were published, I think, in the '50s. I will look at that.

I think Poston has offered to look at the interview tape with him. And I think we need to pull a few more of these threads just to convince ourselves that there is not any monitoring data. And I would think that somebody could look at the rough draft of that hospital book, even though it is not completely published, I would think that you could see what they have ready to go to the printer to see if there were any leads there.

Yes, Lara's report left it kind of

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

open. It says this book will contain more histories and may have some useful background information. Well, it just seems like we need to follow through on that.

DR. HUGHES: Okay. I contacted them. They cannot, they say -- I can provide a book once it is published which will be in December of this year.

MEMBER ROESSLER: Well I would think we could wrap this up before that.

MEMBER PRESLEY: This is Bob Presley. Do you want me to see if I can put some pressure on some people and see if I can get some type of a paper copy on that so we can look at it?

MR. KATZ: The Board meeting is October 20th in New York.

CHAIRMAN LOCKEY: I would like to propose that we try to get this done before the next Board meeting, maybe have a -- if these are the steps we are going to take

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

forward, that we could have a conference call about these results perhaps before the next Board meeting and not really get together as a group with the idea that we can bring this to a close by the next Board meeting, October 20th. Is that reasonable?

MEMBER PRESLEY: As long as we have it before the 15th. I am leaving on the 15th.

MR. KATZ: Let's pull out some calendars here. There is the week before the Board meeting has two or three work group meetings. Let me just see where we are with that.

MR. ELLIOTT: One on Wednesday and one on Thursday. Monday is a holiday.

MR. KATZ: Yes, next week. Let's see.

MR. ELLIOTT: That is a short time, isn't it?

MEMBER ROESSLER: I think I can do what I committed to, and I think Poston said

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

he could. And it would seem fairly maybe easy for Bob to check and see if we could get the information.

MR. KATZ: It doesn't sound like there is a lot to pursue.

CHAIRMAN LOCKEY: It is the book that is going to be the problem.

MR. KATZ: But, I mean, is the book going to lead you to data?

CHAIRMAN LOCKEY: I don't know the answer to that. It is one of the third things on the list. Gen, how hard do we push on the Oak Ridge Hospital history book?

MEMBER ROESSLER: I have a feeling that it is not going to offer anything in addition to what LaVon and others have already gotten. I wish that sentence had not been in the report. It kind of left it open.

CHAIRMAN LOCKEY: So you want to say we drop that one. The other two I think are doable before the next Board meeting. I

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

think the book is going to create a problem because it is going to be confidentiality issues, all kinds of things that come up before something is out for publication.

MEMBER ROESSLER: I think Presley ought to explore it, and if he can't get it, I think we ought to drop that one.

CHAIRMAN LOCKEY: So you still want to explore it.

MEMBER ROESSLER: I think if Bob can check on it, I think that would be fine.

CHAIRMAN LOCKEY: Okay.

MR. KATZ: So as for dates, the 14th and the 15th we have work group meetings that will be all day affairs. There is the 16th or the 13th of October that we have a call.

CHAIRMAN LOCKEY: What day is the 16th?

MR. KATZ: The 16th is a Friday.

MEMBER ROESSLER: I am okay either

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

date.

MEMBER PRESLEY: How about the 13th, what day is that?

MR. KATZ: And the 13th, the 13th is Tuesday. It is this coming Tuesday.

MEMBER PRESLEY: Honestly, that is not enough time. I can circulate around and try to find out who I can talk to about --

DR. HUGHES: I can send you the information for the foundation.

MEMBER PRESLEY: I have got that. [identifying information redacted] is on the [identifying information redacted].

DR. HUGHES: Okay.

MEMBER POSTON: So are you going to put pressure on [identifying information redacted]?

MEMBER PRESLEY: [identifying information redacted] is in the [identifying information redacted].

CHAIRMAN LOCKEY: The next Board

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

meeting is in December?

MR. KATZ: No, there isn't a Board meeting until February. So that means putting this off until February.

MEMBER ROESSLER: Can't we get this information? Certainly I can get what I am looking for, and Poston can. I would think we could get it by the 13th.

MR. KATZ: I don't think there is any problem with yours or John's contributions, but Bob is just saying he can't do anything with respect to the book in such a short time frame.

MEMBER ROESSLER: Well then I don't think that is a high one on the list. I am willing to go without that.

MR. KATZ: Okay. So should we have a call on the 13th? We probably don't need to block out a long time for it.

CHAIRMAN LOCKEY: I would like, if I can, to have it in the afternoon.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

MR. KATZ: Does that work for everybody, October 13th in the afternoon, meeting, say, at 1:30?

MEMBER ROESSLER: Sounds good to me.

MR. KATZ: 1:30 Eastern Time? Yes, Emily?

MS. HOWELL: Is there any way it is possible to do it at 2:00?

MR. KATZ: Yes, we are just making this up as we go. 2:00, does that work?

CHAIRMAN LOCKEY: 2:00 p.m.

MR. KATZ: All in favor say aye. So 2:00 p.m. October 13th unless -- yes?

CHAIRMAN LOCKEY: Yes. Anybody have a problem with 2:00 on the 13th of October?

(No response.)

MR. KATZ: And, Sarah, there will be a call-in number for that as well.

MS. CUMMINGS: Okay, fine.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

MR. KATZ: The same call-in number.

CHAIRMAN LOCKEY: So my understanding is that John and Robert are going to do some follow-up work in relationship to Marshall Brucer and Roger. And we will have another Working Group phone-in conference on the 13th at 2:00, this Tuesday of October.

MR. KATZ: There is one other action item which is, I think, some of you wanted to review the interview notes for Roger Cloutier, which --

DR. HUGHES: Right.

MR. KATZ: -- you will make available. Right?

DR. HUGHES: I'm not sure. They have to be -- we have to send them through DOE review process. I am not sure they are going to be back by then.

MR. KATZ: We have one set of notes already. Right? We are just missing the

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

second. Isn't that the person you interviewed twice?

DR. HUGHES: Yes, we already have one. He was interviewed twice, in 2006, I believe, and last week. And I can probably tell you the content of the interview.

He did not start work at ORINS until 1959. So he indicated that people working at ORINS wore monitoring badges and that, starting in the early '60s, people were monitored for internal radionuclides, which are essentially -- is consistent with the findings we published in the evaluation report for ORINS SEC 33.

He had some more information who did the badging when in the 1960s for ORINS, which, although interesting, is not terribly relevant for the Oak Ridge Hospital situation. It has not provided us any leads where to look for any internal data that might have existed for Oak Ridge Hospital in the 1950s.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

CHAIRMAN LOCKEY: Was he asked that question?

DR. HUGHES: Yes.

CHAIRMAN LOCKEY: Okay. So he was asked --

DR. HUGHES: He stated he does not know a whole lot about what went on before he got there and not at the Oak Ridge Hospital.

CHAIRMAN LOCKEY: Okay.

MEMBER ROESSLER: Okay, you have answered one of my questions. I thought he had worked there before '59. But if he wasn't there until '59 and if he doesn't know anything about the earlier days, then I don't think it is worth pursuing that lead any more.

CHAIRMAN LOCKEY: Okay. So now we are down to the Marshall Brucer tapes.

MEMBER ROESSLER: And books.

CHAIRMAN LOCKEY: And the Oak Ridge book, we are not going to pursue that.

MEMBER ROESSLER: No, no, no. The

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

Brucer books.

CHAIRMAN LOCKEY: Oh, the Brucer book. Okay. And John, that is your task.

So when we have our next Working Group conference call, it will be a report from John about what his findings are from that.

MEMBER POSTON: A question for Jim. If I find this tape, should I send it to you guys, or should I keep it and review it myself and report or both?

CHAIRMAN LOCKEY: I think you should send it.

DR. NETON: I would like to see it, but I would certainly appreciate your input. I mean, if you are reviewing it, we need both inputs.

MEMBER POSTON: Okay. I should know if I have it tonight because I know exactly where it is.

MR. ELLIOTT: Is it a VCR tape? Is

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

it something we could duplicate if you felt it was necessary --

MEMBER POSTON: Yes.

MR. ELLIOTT: -- for us to have a hard copy.

MEMBER POSTON: When I get to school on Thursday, I will check. Because what I did was I got the entire series, and then I had them copied and gave one set to the department. And so we may have two copies of it if it is there at all. So I will know by Thursday morning.

MR. ELLIOTT: Well we would like your input, as Jim says. And if it's something that you feel we ought to have, we can duplicate it. We can put it on a CD.

MEMBER POSTON: I will let somebody know Thursday morning what I found out.

CHAIRMAN LOCKEY: And you have the book, too, I take it?

MEMBER POSTON: No.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

MEMBER ROESSLER: No, I have the book.

CHAIRMAN LOCKEY: You have the book, Gen. So that is your task.

MEMBER ROESSLER: That is my task. And as soon as I get off the phone, I will get a ladder and I can go get it.

CHAIRMAN LOCKEY: And I guess if there is something that is pertinent in there, that probably needs to be copied and distributed.

MEMBER ROESSLER: If there is anything pertinent, I will either scan it and send it by -- I will scan it and send it by email to everyone on the Work Group. I will send it to Ted if there is anything pertinent. And if I feel there isn't, I will also communicate with Ted, then he can decide what to do.

MR. KATZ: Right. I will distribute the results to the full Work Group

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

and to the staff.

CHAIRMAN LOCKEY: Now I have one other question I guess I should raise. Physicians and radiologists and surgeons, employees of the hospital or contracting to the hospital through a professional practice group? Did we resolve that at the last meeting? I don't think we had, had we?

DR. MAKHIJANI: No, I think you raised the question. I was going to raise it -- forgotten.

CHAIRMAN LOCKEY: I hadn't forgotten.

DR. MAKHIJANI: I don't believe it was resolved, from my memory.

CHAIRMAN LOCKEY: Professionally, at least, what happens the last 15, 20, 30 years, is physicians have their own professional corporations, and they contract to different medical facilities for providing service. They are not really employees of the

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

medical facility. They are employees of their own professional corporations, and that is where the payment goes. It doesn't go to them personally. It goes to their companies or the professional group they are associated with.

I don't know how Oak Ridge Hospital handled the situation, whether it was contracted out or they actually are employees of Oak Ridge Hospital. So I guess it's something we need to talk about and how we, if they should automatically be included or not included in the groups.

DR. NETON: I think they are covered under the current definition. In fact, as long as the Department of Labor would qualify them as a covered employee and they could demonstrate 250 days at work at Oak Ridge Hospital onsite, then they would be eligible for the SEC, if there were an SEC. Or conversely, if we didn't have an SEC, they would be a covered employee under the program.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

MR. KATZ: Can you hear that, Gen?

DR. NETON: Although I see what you are saying because it does say all employees who worked in any location.

CHAIRMAN LOCKEY: They are not employees.

DR. HUGHES: Well reports from the -- we have the Oak Ridge Hospital annual report to the AEC, and they do list their physicians. And there is some discussions in there that we hired a new radiologist. We got a new anesthesiologist. So there is some information to indicate that at least some of them were employees.

CHAIRMAN LOCKEY: Hospitals will list the physicians who worked at the facility.

DR. HUGHES: Okay.

CHAIRMAN LOCKEY: It doesn't mean necessarily they are employees.

DR. HUGHES: All right.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

DR. NETON: Perhaps maybe LaVon can help here. LaVon, are you still on the phone?

MR. RUTHERFORD: Yes, I am on the phone.

DR. NETON: I see our proposed class definition starts off as "all employees." And it seems to me that we have got another more all-encompassing definition that we often use that says all employees, contractors, blah, blah, blah.

MR. RUTHERFORD: Yes, was this considered a DOE facility or not?

DR. NETON: I think this is a DOE facility, yes.

DR. HUGHES: Yes.

MR. RUTHERFORD: If it is a DOE facility, we do have a more -- it is all DOE employees, contractors, subcontractors, and so on.

DR. NETON: Well that would be an easy change to the proposed class definition

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

if that what you are saying is true, which I have no doubt.

CHAIRMAN LOCKEY: So it will cover it.

DR. NETON: It will cover it.

CHAIRMAN LOCKEY: That's right. So it is an easy fix.

So anybody want to make that motion?

DR. NETON: Do we have to make motions of these?

CHAIRMAN LOCKEY: Does everybody agree with this? Okay, so just change the language and make it so it is all DOE employees, contractors, what is the other, subcontractors?

DR. NETON: I forget the exact language, but we can insert the standard definition for covered workers at a DOE facility.

CHAIRMAN LOCKEY: So that should

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

take care of that issue, and we won't have to talk about that again.

Anything else we have missed around the table?

MEMBER ROESSLER: Jim, I have a comment.

CHAIRMAN LOCKEY: Okay, Gen.

MEMBER ROESSLER: I just received an email from Roger Cloutier with an attachment on it discussing the fact that he was interviewed. But then he goes into -- there are a lot of paragraphs here of information. I would like to have the opportunity to review this and report back on that when we have our conference on the 13th.

CHAIRMAN LOCKEY: Okay. What did you get from him?

MR. KATZ: An email.

MEMBER ROESSLER: It is an email from Roger Cloutier, and I haven't read it. He has an attachment. He said he was

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

contacted, was interviewed. But then he states in his email he is discussing some other things, which I haven't had a chance to look at yet.

CHAIRMAN LOCKEY: All right. So did you email him directly?

MEMBER ROESSLER: I did.

CHAIRMAN LOCKEY: That is great. Why don't you email him and ask him what he knows about Oak Ridge Hospital.

MEMBER ROESSLER: That is exactly what I did.

CHAIRMAN LOCKEY: Okay.

MEMBER ROESSLER: And he has given me a report. So all I am saying at this point is I haven't looked at it, but I will report when we have our call next week.

CHAIRMAN LOCKEY: Fantastic. So that is the third item, then. Gen, thank you.

MEMBER ROESSLER: You're welcome.

CHAIRMAN LOCKEY: Anything else we

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

need to discuss?

MR. KATZ: I don't think so.

CHAIRMAN LOCKEY: Around the table?

DR. NETON: Well, I was wondering. There was a second part of this issue, and maybe it can't be discussed until the first part is resolved, which is the definition of the class itself. We are saying anyone who worked at that facility, and there seemed to be some concern raised at the Board meeting that that may be too all encompassing.

In other words, I think Dr. Melius's concern at the Board meeting was does that include candy stripers and the lady who ran the gift shop, those sort of things. And I don't know if this Working Group was going to take that up or not.

MEMBER PRESLEY: Well that really bothers me.

DR. NETON: That maybe cannot be decided until one decides whether this is an

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

SEC or not, I don't know. So I just wanted to raise that hospital discussion point.

MEMBER POSTON: Would that fall under the 250 day rule, like for candy stripers?

DR. NETON: Anyone who would be in the SEC would have to demonstrate 250 days employment at Oak Ridge Hospital during the covered period.

MEMBER POSTON: Now they are not employed. They are volunteers.

DR. NETON: Well, they would have to have worked or whatever the definition.

CHAIRMAN LOCKEY: Well when you think about a hospital you could say anybody involved in patient care. Candy stripers would fit into that category because they actually can go into patients' rooms.

MR. ELLIOTT: I think it is a DOL eligibility question. In other words, is a candy striper eligible to file a claim, and

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

their DOL lawyers would have to weigh in on that eligibility issue as non-employed versus a volunteer.

DR. NETON: I just raised it because it was an issue, and I think it will be.

DR. MAKHIJANI: I just wanted to comment. Well, it is not directly an SEC question, but Jim Neton has raised an example of Bethlehem Steel in that regard because you don't know who worked. And undoubtedly the number of people who worked in that uranium mill, and I agreed with Jim's comment, maybe not on the record before, but I agree with Jim's comment and a lot of the workers have made this observation themselves, at least some have, that the whole universe of Bethlehem Steel workers, which was much, much bigger than what we know was the universe of workers who worked in that mill but there's no way to separate them. So a secretary or a

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

worker at Bethlehem Steel who never entered the building is also eligible for dose reconstruction.

MR. ELLIOTT: It is not an SEC.

DR. MAKHIJANI: From an employment point of view, it would seem to me to be a completely parallel situation.

MR. ELLIOTT: Which is a DOL determination.

DR. MAKHIJANI: yes.

MR. ELLIOTT: DOL in the Bethlehem Steel incidence, decided that the whole facility was covered, rather than that one rolling mill, because they could not place people throughout the site.

DR. MAKHIJANI: Exactly.

MR. KATZ: Well what the Board can do is it can make a recommendation. If it can carve out populations there that it believes have no potential for exposure, you certainly can specify that in your recommendation. But

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

you ought to be able to identify those populations into three groups.

DR. NETON: That is the point. It is more than that. I mean, one could say, one could carve out definitions of people who were exposed and working with radioactive materials, but in principle or in practice, it's been our observation that it is not possible to adjudicate that.

MEMBER SCHOFIELD: Let me just throw out one example where you are having some of that problem. Los Alamos, for I don't know how many years, we had policies that the workers up in the cafeteria twice a day brought cigarettes and coffee down to us, into the hot areas. So twice a day, they were in the hot area. You know, and yet by definition of their work and their location, they worked in a cold area.

DR. NETON: Well and you will see this at the next Board meeting, we are

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

changing our definition of the covered class at Hanford. We originally had it carved out to be the 100, 200 areas and such. And we have determined now that there is enough people that moved between all those facilities on a fairly routine basis that it is just not possible to slice the salami that thin, so to speak. So we are changing our definition to be all people who worked at the Hanford facility.

CHAIRMAN LOCKEY: All people.

DR. NETON: All workers at the Hanford facility through 1972.

MR. ELLIOTT: That will capture, that new revised definition for this 8314, will capture those people who worked at the federal building in downtown Richland but found themselves traveling out on assignment into the 200, 300 areas. And we learned from DOE that they had no way of identifying who those individuals are or how many days they

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

spent out there or when they went out there. They can't even speak in detail about their assignment loads.

DR. MAKHIJANI: And I am sort of glad to get this advanced -- but this is something that also popped up, as you know, in our interviews. Actually some site workers have inter-area records, but it is a tough question to actually put a boundary on. Very.

DR. NETON: And that is analogous to this situation where it would be very difficult to say who was actually in an operating room or walked by a patient and served them lunch or breakfast, that sort of thing.

DR. MAKHIJANI: I would imagine that here it would be more difficult than Hanford, actually. There were controlled areas. There were log books. There were entry -- you know, there were more than you would expect there to be, they were more

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

controlled.

MEMBER SCHOFIELD: I have a question for you. How is DOL going to handle, just like somebody brought up, the candy stripers, the Pink Ladies, or some of these volunteers who were not paid?

MR. ELLIOTT: Well that goes -- that is a determination that DOL has to make on eligibility to file a claim.

For example, at INL, I know that they have turned down claims for the soda pop delivery guy. Because he came onsite and he went around to the different places on site where he filled up the machines, he filed a claim. But they said he is not an employee on the site. So you know, if you want a better explanation than I can give you, you need to talk to DOL.

MEMBER SCHOFIELD: Yes, because I would be interested.

MR. ELLIOTT: When and where they

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

apply and how they apply the eligibility and determination.

MEMBER SCHOFIELD: I mean, it would be very possible for some of these candy stripers or what they called Pink Ladies to have more than 250 days in that facility.

MR. ELLIOTT: And do patient care.

MEMBER SCHOFIELD: And do patient care, but they are not employed.

DR. NETON: Well that is a question. The Department of Labor will be at the Board meeting.

MR. ELLIOTT: You can ask that question. I mean, interns have been another subject of this eligibility question. You know, people that may not be employed directly but have an internship where they are on a stipend or they are not even on a stipend. They just get the educational experience. And I would have to ask DOL how they would handle that.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

MEMBER SCHOFIELD: I would be interested to know.

MR. KATZ: My point and my comment for this is that Jim raised the issue that some members on the full Board had concerns about the definition. So it seems like this Work Group needs to come to a recommendation regarding that, if that is that there is no way to slice and dice this, that's a fine recommendation, whatever it might be. But it seems like you need to report back to the Board on that issue so that the Board can put that to bed.

CHAIRMAN LOCKEY: All right. It is on the table. So, you know, Oak Ridge Hospital itself, there was no internal monitoring done. So if we just look at Oak Ridge Hospital in itself and there is no internal monitoring data available and not consider the cross-over issues, what would be the population?

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

MEMBER POSTON: You mean in a number?

CHAIRMAN LOCKEY: Who would have the potential? Who would be covered as an employee or as a contractor or a subcontractor? Just looking at Oak Ridge alone as a stand-alone facility and not taking into consideration the cancer hospital.

So nurses, nursing assistants, LPNs, housekeeping, orderlies, lab techs, radiology technicians, OR technicians, maintenance, kitchen. What are we missing here?

DR. HUGHES: They had a clinical laboratory.

CHAIRMAN LOCKEY: Physicians, lab workers, laboratory workers. We have maintenance. Morticians, okay. Who else worked in a hospital? How about administrator?

MEMBER POSTON: No, they never get

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

any.

CHAIRMAN LOCKEY: How about the administrative staff?

DR. NETON: You can't tell. I mean, people could argue that they were administrative but they did walk through tours of areas. I don't know. It would be hard to say.

CHAIRMAN LOCKEY: I would say -- I would probably say yes. I mean, again, is it biologically plausible that if they get a cancer that it is related to this? No, it is not. But that is not the playing field we are on here. It has to do with how the law is written and what we have to deal with.

But I think we should keep it as people that are -- I don't think we should include volunteers. I think the volunteer or the people that come in and deliver soda pop or deliver food, who are coming in and out of the hospital making deliveries, shouldn't be

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

included.

MEMBER SCHOFIELD: I wouldn't include them either.

CHAIRMAN LOCKEY: So I think we should include these are people that are paid employees of the facilities.

DR. NETON: It would also include subcontractors, though.

CHAIRMAN LOCKEY: Subcontractors. I would agree with that.

DR. NETON: And the Department of Labor's job would be to determine if those subcontractors had sufficient time in the class. So we may have refrigeration mechanics or those type of people that come in. They would have to demonstrate 250 days of occupancy or work history.

CHAIRMAN LOCKEY: I don't particularly feel comfortable making a list.

DR. NETON: Any list you make is --

CHAIRMAN LOCKEY: I don't feel

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

comfortable doing that. But just thinking about it, I don't see anybody I would exclude, offhand. I can't really pinpoint somebody.

MEMBER PRESLEY: Well people who work in the pharmacy, you know, --

CHAIRMAN LOCKEY: They may be mixing this stuff together.

MEMBER PRESLEY: I find that hard to believe --

CHAIRMAN LOCKEY: I do, too, but --

MEMBER PRESLEY: -- if they let the pharmacy people mix up the hot isotopes in the same pharmacy that they are mixing the medicines.

One of the things that I am going to do is continue to see if I can't find people that are still living in Oak Ridge that may have worked there. I just haven't had a chance to --

MEMBER ROESSLER: Bob?

MEMBER PRESLEY: Yes.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

MEMBER ROESSLER: This is Gen. Are you familiar with the 43 Club in Oak Ridge? Apparently it still exists. People still meet. And they are people who came there in the '40s.

MEMBER PRESLEY: Yes. It is still ongoing.

MEMBER ROESSLER: Is there any possibility that you could contact or that they would be having a meeting and you could see whether that is a source?

MEMBER PRESLEY: There are some people like Bill Wilcox and things like that that I can contact and see if I can get some names.

But I am going to be honest with you. I have not had a whole lot of luck finding many names that worked down there. And I have not talked to anybody at Oak Ridge Associated Universities to see if they have got any type of roster for people that might

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

have worked there. I presume, Lara, you have done that to talk to them to see if they have got any old rosters of who worked at the ORINS back in the early years?

DR. HUGHES: We did contact them extensively for both evaluation of both facilities, looking for radiation monitoring records. We didn't specifically look into rosters, but I do believe they had quarterly reports. ORINS quarterly reports had rosters of names of people that worked there and in what capacity they worked there.

MEMBER PRESLEY: Okay.

CHAIRMAN LOCKEY: Bob, I just heard you say that you have another task that you assigned yourself.

MEMBER PRESLEY: Well, I will look there. I have got a few days, not many.

CHAIRMAN LOCKEY: Okay, so --

MEMBER PRESLEY: But I will look and see if I can find some other people that

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

might have worked there.

CHAIRMAN LOCKEY: And if we have it by the 13th, great. If we don't have it by the 13th --

MEMBER PRESLEY: Well, then you don't.

CHAIRMAN LOCKEY: Okay, very good.

Going back to the definition of the cohort. Any other suggestions about that? Pharmacy? You raised a good point. Pharmacists normally don't leave the pharmacy. Do we exclude them. Do we say everybody but the pharmacists?

DR. NETON: I don't know if there was a nuclear medicine pharmacy there. I mean they did administration of iodines and such. I don't know why they would be segregated. I don't know if there was a nuclear medicine pharmacist specialist. I don't know.

DR. HUGHES: Somebody had indicated to me that Abbott Labs was right across the

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

street from the hospital --

MEMBER PRESLEY: That is correct.

DR. HUGHES: -- and they got their radioiodine from there. But where did they store it once they got it to the hospital?

DR. NETON: Someone had to put it in a syringe for injection and that sort of thing. I don't know. I couldn't make a judgment as to whether people in the pharmacy were or were not exposed.

MEMBER PRESLEY: Yes, Abbott's front door and ORINS's front door were probably within 50 feet.

CHAIRMAN LOCKEY: All right. Any other issues we have got to deal with?

(No response.)

CHAIRMAN LOCKEY: All right, so the goal is if we can have to have a phone conference in a few days on the 13th. Is that the right date, the 13th?

MR. KATZ: Yes, 2:00.

This transcript of the Advisory Board on Radiation and Worker Health, Oak Ridge Hospital Work Group, has been reviewed for concerns under the Privacy Act (5 U.S.C. § 552a) and personally identifiable information has been redacted as necessary. The transcript, however, has not been reviewed and certified by the Chair of Oak Ridge Hospital Work Group for accuracy at this time. The reader should be cautioned that this transcript is for information only and is subject to change.

CHAIRMAN LOCKEY: And we will see if we can wrap it up at that point. If we can't, then we will report to the Board and have another meeting subsequent to that.

Anything else we need to cover at all?

(No response.)

CHAIRMAN LOCKEY: All right. I guess we are done.

(Whereupon, at 11:04 a.m., the foregoing proceeding was adjourned.)