THE VETERANS' ADVISORY BOARD ON DOSE RECONSTRUCTION

MEETING II

DAY ONE

The verbatim transcript of the Meeting of the Veterans' Advisory Board on Dose Reconstruction held at the Sheraton Gateway Hotel, Los Angeles, California, on January 12, 2006.

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January 12, 2006

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TRANSCRIPT LEGEND

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(By Group, in Alphabetical Order)

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P R O C E E D I N G S

(9:00 a.m.)

CALL TO ORDER AND OPENING REMARKS
MR. WILLIAM R. FAIRCLOTH, DESIGNATED FEDERAL OFFICER

VICE ADMIRAL ZIMBLE: Ladies and gentlemen, it's now 9:00 o'clock. Good morning, everyone. I'd like to call this meeting to order. We'll start promptly so that hopefully we can end promptly.

I welcome all the Board members. I thank all of you for your diligent work in preparation for today's and tomorrow's session, and I welcome all of our visitors that have come to -- to watch us in action.

I would remind everyone that these mikes need to be turned off unless you're using them. When you use them, I just press the button and get the little red light. And I would also ask that -- that folks turn off your cell phones, please, or put them on vibrate, but -- awfully important that we don't -- that we don't destroy the -- some of the recordings that we'll be making.

And I'd now like to turn the meeting over to Mr. Faircloth for some opening remarks.

MR. FAIRCLOTH: Thank you, Admiral. I'm the

Designated Federal Officer that provides an overwatch to this, Board members. My name is Ronnie Faircloth. I'd like to echo Admiral Zimble's remarks in welcoming those that are here. I appreciate everything -- in newsletters and everything else -- in trying to get the attendance here because the communications piece of this is an important element of it. Not only the accuracy of dose reconstruction, the timeliness, the effectiveness of the communications is also terribly important. So I appreciate those of you that invited other veterans to attend so that they can provide their input because we think that's extremely valuable.

I also would like to thank the Board members. I think we have a world class set of Board members on this committee, that each of them with their respective expertise is going to add tremendous value to looking at all aspects of this program. So I would like to thank them for their efforts.

This is the second plenary. Much has been done since the last one we had in Tampa, and I look forward to the continued progress so that we

can continue to improve on serving our great veterans. So I think if you looked outside, there is a number of handouts that are available to you, to include the agenda for today and tomorrow. There are two designated public speaking periods where you can not only make presentations if you signed up, but ask questions of all of us -- the speakers, the presenters, the Board members -- and I encourage you to do so.

We've got a heavy agenda so I would like to move on expeditiously, and at this time I would like to reintroduce the Chairman of the Veterans Advisory Board on Dose Reconstruction, Navy Vice Admiral James A. Zimble, Retired; former Surgeon General of the United States Navy. Thank you, sir.

INTRODUCTION OF THE VBDR MEMBERS AND CHAIRMAN'S WELCOMING REMARKS

VICE ADMIRAL JAMES ZIMBLE, CHAIR

VICE ADMIRAL ZIMBLE: Thank you, Mr. Faircloth. Thank you. I -- I have a -- the former Surgeon General of the Army, Ron Blanck, who's -- I want to make sure that he keeps me straight on the same button that I talk to him about.

I want to -- I really want to thank the members of the four subcommittees for the work that they've put in over the last few months in -- in starting the process of -- of meeting the obligations of the charter of this Board. And as you know, we -- our -- our sole job is to -- is to find ways to expedite the processing of the claims that have been -- that have been made, and to meet the needs of the -- we'll call the atomic veterans. And we all know what those cohorts represent, people who have served our nation well and who deserve a hearing, deserve our ability to communicate with them and to listen to what they have to say. So I'm delighted that -- that we have some participants for the public comment session this afternoon and tomorrow, and we look forward to hearing from you.

In the meantime, we have to educate our Board. We have two of -- some prestigious speakers this morning who will -- will give us some more information about these topics that we're discussing.

I'd like to introduce the Board. I think the easiest way to introduce the Board to the -- to

the participants here is to ask them to introduce themselves, we'll start with -- with Dr. (sic) Beck.

MR. BECK: My name's Harold Beck, I'm a private consultant in radiation dosimetry and radiation dose reconstruction, and retired from the Department of Energy a number of years ago.

DR. BLANCK: I'm Ronald Blanck, currently president, University of North Texas Health Science Center, former Army Surgeon General.

DR. BOICE: I'm John Boice. I'm a radiation epidemiologist and have spent my career studying the effects of radiation on numerous populations throughout the world exposed to radiation. I'm professor of medicine at Vanderbilt University, and scientific director of the International Epidemiology Institute. I also have served in the United States Public Health Service as a commissioned officer for 28 years, first with the Food and Drug Administration, and then ended my career at the National Cancer Institute.

MR. GROVES: Good morning. My name is Kenneth Groves. I'm a retired Navy Commander. In my Navy career I had eight years enlisted service

as a hospital corpsman, was involved in my Navy career in the Navy's Nuclear Weapons Radiological Controls program. When I retired I worked for the University of California at Los Alamos National Lab, and I now have my own private consulting business. Thank you.

DR. LATHROP: My name is John Lathrop. I -- when I came on board this committee I was an independent consultant. Now actually I'm employed at the Lawrence Livermore National Laboratory in the Systems and Decision Sciences section. I'm a decision analyst and risk analyst.

DR. MCCURDY: I am David McCurdy. I'm a technical consultant, mainly for the government agencies, Department of Energy, EPA and the national laboratories. My background is in radiometrology and looking at the radioactivity and radiation measurements is my expertise, and I'm on the subcommittee on quality management. Quality assurance is one of my strengths as -- and we were chair of several ANSI committees on quality assurance related to laboratory analyses.

DR. BLAKE: I'm Paul Blake, a retired Naval

officer. I retired just about a year ago from active duty. At that time I was serving as the senior physicist in the Navy Medical Department. I now serve as the Nuclear Test Personnel Review program manager at the Defense Threat Reduction Agency.

MR. PAMPERIN: Good morning. I'm Tom Pamperin. I'm the assistant director for policy of the Compensation and Pension Service of the Department of Veterans Affairs, 34 years of federal service and I am a retired Reserve Lieutenant Colonel.

DR. REIMANN: I'm Curt Reimann, retired from the National Institute of Standards and Technology where I've spent 43 years, mainly as a chemist. I retired there as director of the Malcolm Baldridge National Quality Award. My main role here is in quality management, and I'm currently a professor of quality management, performance management, at Tennessee Tech University.

DR. SWENSON: Good morning. I'm Kristin Swenson. I'm retired Air Force, and currently I'm working as a medical physicist for the company RadAmerica in radiation oncology

clinics.

COLONEL TAYLOR: Good morning. I'm Edwin Taylor. I'm a retired Army Colonel, 30 years service, Korea, two volunteer trips to Vietnam, Berlin, extensive service during the Cold War. I also was a close-in observer to atomic blast at Desert Rock and walked immediately to Ground Zero, so I have some unique experience in this. And I've spent the 23 years since I retired working principally with veterans outfits and veterans organizations, and it has been an absolutely marvelous experience for me. And to be selected for this committee is indeed an honor. Thank you.

MR. VOILLEQUÉ: Good morning. I'm Paul Voillequé. I'm a certified health physicist. I operate a one-person consulting firm, and I've been involved in a number of dose reconstruction projects. And that's my contribution to the Board.

DR. ZEMAN: Good morning. I'm Gary Zeman. I'm a retired Navy Commander. I was a radiation health officer in the Medical Service Corps for 20 years. I'm an expert in radiation measurements and radiation safety. Since

retiring from the Navy I've gone on to use my radiological expertise. I've worked at AT&T Bell Laboratories as radiological safety officer. I worked at Argonne -- I'm sorry, I worked at Lawrence Berkeley National Laboratory, and just recently I've transferred to Argonne National Laboratory in the Chicago area. I'm very proud and pleased to be a member of this Board.

VICE ADMIRAL ZIMBLE: I thank you all very much for those introductions. I think that you'll all appreciate the level of expertise this Board has. They manage to teach me something every time I talk with them, and it was no question in my mind -- there's no question in my mind that -- that these are the experts. These are the individuals can -- can look at the role that this Board has to play and -- and hopefully come up with some recommendations that's going to expedite the process for meeting the needs of -- of the atomic veterans.

BOARD DISCUSSION SESSION
DISCUSSION OF THE CHARGE AND BOARD RESPONSIBILITIES
REVIEW AND BOARD APPROVAL OF AUGUST 17-18, 2005 MINUTES

I would remind you that the Advisory Board has

-- has the following tasks. One is to conduct periodic and random audits of dose reconstruction under the radiation dose reconstruction program, and to look at the -- audit the decisions that have been made by the Department of Veterans Affairs on the claims for service in connection with radiogenic diseases; and then assist the Department of Veterans Affairs and the Defense Threat Reduction Agency in communicating to the veterans the information on the mission, procedures and the requirements of the dose reconstruction program; and then to carry out whatever activities we -- we uncover as -- as potential places for us to -- to recommend improvements, both improvements in the process to the Agency-- the Veterans Advisory -- the Veterans Administration, as well as to the Defense Threat Reduction Agency and NTPR.
We have as our first job is to review the minutes of the last meeting in Tampa, and I'd appreciate any comments that -- that folks have. They've been approved, but I would appreciate any comments that any Board members might have regarding those minutes, and it's --

the next formal piece of business will be to accept those minutes for the record.

By the way, I would remind everyone that we have a viable web site, vbdr.org, which -- okay -- vbdr.org, and you can look at that web site and you can see the bios of the various members, the mission, the charter. The minutes are always included on the web site, and we'll always keep the public informed as to our progress as -- as we move on through these various meetings.

I just got a note -- we have one member of the Board who can't be with us today but who -- who can't be with us in person, but who is currently on the telephone, and so Elaine -- Dr. Vaughan, I apologize, and Elaine, I welcome you to the Board.

DR. VAUGHAN: (Via telephone) Thank you. Good morning. My name is Elaine Vaughan. I'm a professor in the Department of Psychology at the University of California, and I've spent my career looking at issues involving risk communication and public participation in the risk assessment process. And I'm honored to have been appointed to this Board.

VICE ADMIRAL ZIMBLE: Okay. Thank you, Elaine, and we're sorry that you can't be with us, but --

DR. VAUGHAN: Thank you.

VICE ADMIRAL ZIMBLE: -- we're delighted that -- that we -- we have your expertise available to us in the course of this meeting.

DR. VAUGHAN: Thank you.

VICE ADMIRAL ZIMBLE: Are there any comments or questions from the Board regarding the minutes?

(No responses)

Okay. In that case, I accept those minutes for the record, and they -- they will be published on that web site.

A BRIEFING ON INTERACTIVE RADIO-EPIDEMIOLOGICAL PROGRAM—FUTURE DEVELOPMENT?

DR. CHARLES LAND

It is -- we're a little bit early, but I think that our presenters are here. I would like very much now to -- to introduce our first presenter. That's Dr. Charles Land. Dr. Land is currently with the -- with the EPA. No, I take that back. He's with the National Can-- he's with the National Cancer Institute. He's a radiation epidemiologist. He's -- most of

the work that deals with our use of the reconstructed doses that the veterans have received is -- is in -- is placed into the IREP, which -- which I know Dr. Land will explain. And that -- that program allows us to assess the probability of causation of the -- that dose of radiation with a specific radiation -- potential radiation-induced condition or disease. So he -- he's got terrific credentials. He's with the -- a member of the NIH working group to prepare the radioepidemiology tables. He has done a lot of the preparation for the IREP and the revised IREP report. He's been a member of the NCRP from 1981 to the present, and he's with the International Committee in Radiation Protection Committee -- one on risk -- for many, many years.

So Dr. Land, welcome, and thank you so much for coming.

DR. LAND: Thank you. Let me see, I'll have to -- this'll take a little bit, just -- okay. Well, the program, IREP, which I think you may be familiar with, is an example of quantitative uncertainty analysis. And I -- I won't dwell

on that, really. But basically, ionizing radiation is a known and very well-quantified cancer risk factor, and I would go so far as to say it's the one we know best for any common carcinogen we understand and have quantified the relationship between cancer risk and radiation dose probably better than anything else.

But still the risk estimates are uncertain. All risk estimates are uncertain. But we know a lot about the uncertainties, and we can use what we know to address the implications for risk.

And basically the approach is to take the problem apart and identify component parts. And for radiation-related cancer, the component parts are -- the most important component parts are the radiation dose -- the estimated radiation dose, which I understand is your concern here -- and the excess risk for -- in a dose. We usually use excess relative risk because it easily translates into assigned share of probability of causation. That's the excess risk divided by the total -- the -- I'm sorry, not the total risk, but the risk that

would be -- you would have if there were no exposure. The problem of using estimates that are based on other exposed populations because there are a lot of exposed populations and the most important is the survivors of the atomic bombings of Hiroshima and Nagasaki, and how do we transfer those estimates over to a U.S. population. And then there's the problem of taking the risk that we know best, which is the risk at rather high doses where the excess risk is fairly high in relation to the baseline risk. And if you -- it's -- this is what you call high noise -- high signal to noise ratio. And then taking it down to much lower doses, which are typical of population exposures, and how do you do that. That's an uncertain process, and it's another one of the components.

So then you put these -- you put these things together and evaluate the overall uncertainty of the solution.

IREP is short for Interactive RadioEpidemiological Program, and that or the tables -- radioepidemiological tables which preceded it and which I'll talk about a little

bit -- is mandated in the United States for adjudication of some claims against the government for radiation-related cancer. And in particular the Energy Employees' Occupational Illness Compensation Program Act of 2000, it's actually mandated.

Now to repeat myself a little bit, we know a lot about radiation-related cancer risk in exposed populations. The main reason we know so much about radiation-related cancer is that it's possible with radiation to estimate the radiation dose, not only to individuals, but also to individual organs in the individual. And this is an enormous advantage. That's really why we know so much more about radiation than we do about most other things.

So we can estimate site-specific excess relative risk, the excess risk divided by the risk that you would have if you weren't exposed. We can estimate it by exposure history and by age following exposure. And in an exposed population, the proportion of cancers that would not have occurred in the absence of exposure -- and that's what we're interested in here, the excess risk that's

related to radiation -- is estimated by assigned share, which is defined here as shown here as the excess relative risk divided by one plus the excess relative risk. Another way of putting it is the excess risk divided by the total risk, the baseline risk plus the -- plus the excess risk.

Now this is a population quantity. It isn't something that necessarily refers to a particular person. And a good analogy to it is the use of actuarial tables that are used by the insurance industry to set rates. The actuarial tables are a description of the entire population -- you know, life span and this sort of thing, force of mortality at particular ages. And we know that it doesn't apply uniformly to everybody because some people live longer and some people don't live as long. But in the average it works out, and so it's accepted as a basis for public policy. And so according to the law, this population quantity is used as a guide for adjudication of individual cases.

So a little history. The 1985 National Institutes of Health report, the working group

to develop epidemiological tables was mandated by the Congress. And I think the intention really was to use it for simplifying the court system relating to radiation-related claims. And I think -- in particular since Senator Hatch was the person who initiated it -- it was particularly for people living downwind of the tests at Nevada.

The law requires periodic update of these tables, and essentially the tables are supposed to be a summary of mainstream scientific information, sort of condensed to put in a way that's usable.

As it turned out, it really was not accepted well at all as something that would be useful in court cases as a substitution for tort law, which -- and I guess interest sort of lapsed, except for the VA saw it as a good way to adjudicate claims based on service-related exposure. So until recently, the VA is -- was the main user of the NIH tables. The tables, even though I -- I worked on these tables, and even though I think they're not so bad, they really are hard to use. And so they commissioned the -- I always forget what CIRRPC

means, but it's -- it's an interagency committee on radiation research and policy. Anyway, they commissioned the CIRRPC to -- to develop a screening tool, and -- and -- or actually to see if they could simplify it and what -- and CIRRPC thought about it and they decided that the best thing they could do was to develop a screening tool so that you could more or less eliminate the obviously -- claims in which they didn't have a whole lot of causation behind them, using upper uncertainty limits for this assigned share of probability of causation. And that's what they did, they -- they developed tables for the -- if a dose is for particular cancer, what -- what dose would be -- would be consistent with a 50 percent -- well, let's see, a probability of causation of half, so that's -- that satisfies the tort law rule of -- as more likely than not, and they gave values for -- that would be at the upper 90th percentile, at the upper 95th percentile, and the upper 99th percentile.

And the VA claim adjudication, they used -- the VA used the CIRRPC rule as a screening tool, and they actually then decided well, that that

-- generally there wasn't much else they could do with the information. They -- there wasn't the capability to go into a particular case more deeply than the radiation dose because the radiation dose and -- the relationship between radiation dose and risk is -- is reasonably well-established, so they actually based their adjudication on the screening tool. And the -- the 2000 -- was it 2000? -- EEOICPA law that I referred to later put that into law. So it was -- it was originally VA policy -- administrative policy, and now it's the law for Energy employees.

Now the present -- the 2003 NCI/CDC report was requested by the VA. They reminded the NCI and the Department of Health and Human Services that the law required that the -- that the tables be updated as new information became available, and they thought this was time to do it. But we didn't have the information that was just recently provided by BEIR VII. We had to do with -- deal with BEIR V. Actually BEIR V then turned out to be a not very good -- easily adaptable to updating it, so we developed -- that is NCI and CDC developed the

new report as an interim update, which would require revision after BEIR VII and new A-bomb survivor data became available.

And it was targeted to the VA requirements -- that is the 99 percent -- upper uncertainty limit, and it was based on scientific consensus, like the original one. It was done by a small working group involving people from NCI, the CDC and our contractor, SENES Oak Ridge, which is -- who has expertise in uncertainty analysis. We had advisors, a group of scientific and lay advisors, and -- when we were developing it -- and also, after we had pretty -- almost finished it, there was a formal review by the Institute of Medicine, an expert review panel there.

Oh, I'm sorry. I've just been told that I -- I'm asked to explain BEIR V and BEIR VII, and I'm sorry about that. There have been -- altogether now there have been seven reports by the National Academy of Sciences' committee on the Biological Effects of Ionizing Radiation, and B -- Biological Effects Ionizing Radiation, that's B-E-I-R, BEIR. The first one was in the '70s -- actually the -- the odd -- it's the odd

ones that are -- that are most relevant because they dealt -- they deal with low LET. That is radiation like X-rays and gamma rays. And I was on the BEIR III committee, which -- well, it was published in 1980. Then there was BEIR V, which was published in 1990, and BEIR VII, published in -- oh, just being published now. And these are -- in other words, these -- these are expert committees, people who have -- or at least believed to be -- have some expertise in -- in radiation-related risk, radiation biology, epidemiology, statistics, other things. And they are -- that -- that report is considered to be the most authoritative one, at least by people in the United States. The United Nations also has reports which -- which are periodic and there's a lot of expertise there.

Anyway, they're kind of -- that's -- if you want -- if you want to base something on -- on a consensus, scientific consensus for radiation, BEIR -- the BEIR reports are where to go. And we now have the newest BEIR report, and that's actually the topic of -- of this talk, if I get around to it.

So the calcu-- getting back to this -- to the NCI/CDC report, the calculations are based mainly on A-bomb survivor cancer incidence data, and that's -- and the BEIR reports are based on that and the UNSCEAR -- the United Nations reports are based on that because these are the most available data. You have a single population exposed at one time to a great range of -- a range of doses, from hardly anything to fatal. And it's -- it's easily -- it's well -- it's well-quantified.

The emphasis of our report was based on uncertainty analysis. Of course for many reasons, but one of the main ones is the requirement that you have. You have an uncertainty distribution for the -- for the probability of causation. And I think probably most important, the tables which were hard to use were replaced by IREP, this Interactive RadioEpidemiological Program, which is easy to use. And it certainly is a lot easier to use than the tables were.

I've already talked about this law. It is for DOE and DOE contractor report-- employees. The adjudication is by the Department of Labor.

And NIOSH, the National Institute of Occupational Safety and Health, is the responsibility providing doses and support, and they're to use the NIH tables as may be updated. And as I said before, EEOICPA mandated the use of the upper 99 percent limits on assigned share for probability of causation. There is -- there are two versions of IREP. Ours is the -- I guess I'd say this is what we thought was -- was a -- was the best we could do in terms of scientific consensus, and it's really an archival thing. We don't -- we don't change it until we have another -- until -- or at least somebody has another -- does another report. But NIOSH, for administrative reasons, has made a few changes, mostly having to do with efficiency of entering data and so forth. But also there are a few differences for certain cancer sites and that's -- that really doesn't have much to do with us. It's -- 'cause we don't have the responsibility for actually adjudicating cases. We just provide the information.

The components of IREP, the input, there are individual characteristics because all these

things have to do with radiation-related risk -- sex; the date or the year of birth; the type of cancer that is being -- in the -- claimed, the date of diagnosis; smoking history -- because this is a very important factor for -- for a number of cancers, but particularly lung cancer.

And -- and of course the exposure history, which -- which is -- can be, and should be, rather detailed. For each exposure there's the date of exposure; the dose estimate and its uncertainty estimate -- uncertainty distribution, because doses also are uncertain, they have errors -- possible errors; the radiation quality, because different kinds of radiation are more or less effective than other kinds. Photon radiation, which is -- includes X-rays, gamma rays at different energies. Neutrons, which are particles, they're -- there's the energy of -- of the radiation. And for example, medical X-rays are generally in the 30 to 250 kiloelectric volts. Gamma rays are above that, other things. And whether it's -- the exposure is chronic -- that is, takes place over a long time -- or acute and occurs

in a very short time, and -- because that makes a difference as far as risk is concerned.

The calculation components, you compute -- for each exposure we compute the excess relative risk, again with uncertainty, for the specified diagnosis and date, and apply a number of things. And cur-- one is an uncertain period -- minimal period from -- from exposure until diagnosis. That is, if an exposure -- if a -- if the cancer occurs really early, is it too early to be related to the radiation. That's that kind of question.

The uncertain radiation effectiveness factor for the -- for the specified radiation. I just said that different kinds of radiation have different levels of effects, but there are uncertainties associated with that.

And the uncertainty -- uncertain factor for dealing with chronic as opposed to acute exposures, or for exposures at low doses. This is -- this is a very strong factor, has a lot of influence.

And adjustment for smoking history, if applicable.

Then after you -- after computing the excess

relative risk for each of these exposures, you sum it -- it all applies to the same diagnosis -- and apply an uncertain transfer factor, if applicable, for the ratio of the Japanese-to-U.S. cancer rates. How do you get it -- how do you move the risk instrument from the -- from the A-bomb survivors, or another population, whatever population it is that's involved, to the U.S. population. And you combine the uncertainties and the calculation is done by a simulation. Not because it's magic, but because it's easier and -- than doing it analytically, working it out on -- paper and pencil. And transform the excess relative risk and its uncertainty to estimates and uncertainties for the assigned share, or the probability of causation, which is what -- what the judgment is based on.

Now BEIR VII, which is now in press, is, as I mentioned -- it's a highly authoritative review of mainstream science on radiation-related risk. The risk estimates, like almost all risk estimates, are modeled mainly on the latest A-bomb survivor tumor registry data and mortality data using newly -- it's -- in this case it's

newly-reconstructed doses, which don't differ by much from the old ones, but there are -- they are different -- and because there's more follow-up because the A-bomb survivor data now extend from -- well, 1950 through about 19-- sorry, 2002, I think -- no, that's probably about 2000 -- the proj-- the -- one of the questions was the projection over time since exposure. That is, if you have an estimate that is based on say the first 40 or 50 years after exposure, how do you apply it to later -- later times. That's another source of uncertainty. Also it includes data from other exposed populations, and the dose response models used by BEIR VII are generally similar to those used for IREP, but different -- different in some detail.

BEIR VII pays considerable attention to DDREF, the -- or to the reduction to low -- low doses and to population transfer. These are -- well, the rest of this is maybe -- this is maybe too technical, you know, really not interested, but -- but I'll just go through it anyway.

There's two ways to look at risk. One is the -- the excess risk, that is the risk after

exposure minus the risk before, and then as a ratio there would be excess relative risk, which is the ratio of the risk after exposure to the risk before and subtract one from it. That's to -- determined by population rate ratios.

And I think this last is too -- too longish, even for -- even for me.

So the conclusions are -- that I will give you is that IREP can be improved by adopting the models and risk estimates of BEIR VII. Actually the law says it has to be, and it will be an improvement. And because the BEIR VII estimates are based on more data, the uncertainties in IREP probably will be reduced. I think probably the estimates will go up little, so the estimates themselves will go up and the uncertainties will go down. And so unless the new estimates are considerably higher, the site-specific upper uncertainty limits for assigned share -- that is like the 99th percentile -- probably will be a little lower than at present.

Here are some links I -- if you want to look at the -- the report of this -- of the NI --

NCI/CDC report, this is how to do it. You can get a copy -- you can get a copy of it by -- you -- free, from NCI, and you can get a -- or you can get a digital copy which you can unload -- download to your computer. And it also gives a link to the NIOSH web site where they have their version.

And that's -- that's all I have.

VICE ADMIRAL ZIMBLE: Well, thank you very much, Dr. Land. You -- you've, in a very short time, tried to deal with a very complicated subject, and I -- I appreciate giving us this information.

BOARD MEMBERS QUESTIONS AND DISCUSSION

Now I'm just a layman when it comes to radiology and -- and radiogenicity, but what I gather from -- from the remarks is, number one, we can't look in a microscope, we can't do a lab test that will definitely show that a particular condition or disease is due to radiation. Many other causes can give you exactly the same -- same problem.

DR. LAND: Yes.

VICE ADMIRAL ZIMBLE: So we have to look at

statistics and probabilities and population epidemiology in order to arrive at that, and therefore there are many uncertainties. And what encourages me is that as each of these committees come together over the years and have re-looked at data and seen an accumulation of more and more data, that uncertainty can go down somewhat. It's always going to be there, but -- but the process of what we're doing with the various committees that meet on -- the BEIR, the Biological Effects of Ionizing Radiation, we're constantly honing in on -- on getting the best possible data to be able to arrive at what causes a particular disease entity, and how much of it might be due to radiation.

Now the law mandates that we give the veteran every benefit of the doubt. And I think that you have demonstrated that we look at 50 percent -- you know, if it's more probable than not, then -- then the benefit of the doubt goes to the veteran, and that you're using a number that's based upon three standard deviations away from the mean on -- on that -- on that 50 percent probability of causation. So we're

always looking to make sure and the -- and the Veterans Administration I think would support that, that we look at -- not only in the calculation of the dose estimate, but also in the application of that dose estimate in terms of whether or not the particular disease or entity was caused by that exposure is always to the benefit of the veteran. Is that correct?

DR. LAND: That's right, yes.

VICE ADMIRAL ZIMBLE: Thank you. Yes?

DR. LATHROP: Yes, I wonder if I could ask you to just straighten out something that I find very complicated, and this is one of my fields of specialty, what you mean by 99th percentile and how the 99th percentile and the 50 percent relate. I mean it takes quite a bit of risk communication to make that clear to people. I wonder if you could help us out with that. What do you mean by 99th percentile?

DR. LAND: I wish I could draw it. But -- but you can -- you can -- think -- you have -- you have the estimate itself, the point estimate, and that's -- that's in the middle. And then you can think of the -- the uncertainty as being sort of like a -- like a bell curve, so

you -- it sort of -- the -- generally speaking, the best estimate is the one in the middle. And then as you go out, you say well, but it's -- if that's the best estimate, but it isn't all that much better from one -- from estimates that are a little bit higher or a little lower and a little more higher and lower, and so forth. Generally the farther away you get from that estimate, the less likely the value is to be -- to be greater than or less than -- than that value. And that's the idea of uncertainty limits that limits -- or confidence limits that -- okay, if you have the upper 99th percentile of the uncertainty distribution, what you're saying is that -- again, this is -- this is, again, scientific consensus. A scientific consensus always has uncertainties. It is -- let's say one chance in 100 that the real estimate could be as high or higher than that. That's -- that's -- that's basically it.

VICE ADMIRAL ZIMBLE: That's why I struggled through statistics for so many years in college.

DR. SWENSON: This is Kristin Swenson. Dr. Land, if you could give us -- in maybe cocktail

party type layman's terms -- what does this mean to the vet; and when the VA uses this database, they plug in the information as you listed for the veteran --

DR. LAND: Uh-huh.

DR. SWENSON: -- their dose that they've estimated. And if you can then explain, you know, they -- how they use this 99 percentile, and then what comes out the other end for them, the VA, to make a decision.

DR. LAND: Well, the 99th percentile is what comes out. You have -- you have the -- the estimate, and then you have its -- let's say its 99th percentile, the upper -- the upper limit. That's what the law says -- at least -- I don't know if the law says that for veterans, but it certainly says it for -- for Department of Energy employees, that's what you use, that value. And you -- and -- and it's -- I mean there's always -- there's always the possibility that you might have more information that might be relevant, but I don't think, you know, there is. I don't think I'm answering your question, but I -- I guess I don't understand your question.

DR. SWENSON: Okay, I guess I'm trying to make it maybe more clear to the veterans. So you -- the information on their exposure's input into the IREP database.

DR. LAND: Yeah.

DR. SWENSON: And there are values at the 50 percent, the 90 percent, the 99 percent.

DR. LAND: Uh-huh.

DR. SWENSON: That value that comes out is a PC value. Is that correct?

DR. LAND: That's right.

DR. SWENSON: Okay. But it happens to be in the 99th percentile, like you said, the one in 100 chance. It could be as high as a certain dose.

DR. LAND: No, the dose is what you -- is what comes in --

DR. SWENSON: The dose comes in, but --

DR. LAND: That's what you're calculating, but the value -- oh, let's say -- basically, if the -- the probability of causation or the assigned share is a number between zero and one. And what the -- what the law says is if the -- okay, as the -- the 99th percentile is 90th percentile is higher than the 80th percentile

and so forth. And what the law says is that if the 99th percentile is 50 percent, or a half or more, then the claim is accepted. And if it isn't, then it isn't. I think it's as plain as that. But I don't have anything to do with this, you see. I just provide the numbers that go into it. Yeah.

DR. SWENSON: (Off microphone) (unintelligible), but I think that helped explain what I was trying to get at. Thank you.

DR. LAND: Yeah, I've got the question over here.

VICE ADMIRAL ZIMBLE: Colonel Taylor?

COLONEL TAYLOR: Dr. Land, first of all, congratulations on taking a very difficult subject and making it explainable to an infantryman and a cavalryman. When I understand what you're talking about, I think we're both gaining.

My subject involves another area that I wonder if we're going to. And for example, some of the related diseases, some of the related maladies that the VA addresses, and probably the most significant one is the Agent Orange

business, there are a number of cancers that, by virtue of having that cancer in a veteran, he is considered to have been exposed to Agent Orange. Do you see that going -- entering into this equation any way in the BIER (sic) reports or not? Do you think we will be able to simplify it that much or not?

DR. LAND: No, I --

COLONEL TAYLOR: Do you follow me?

DR. LAND: Yeah, I -- I think I do. I don't think you're asking me specifically about Agent Orange so --

COLONEL TAYLOR: I'm asking you for conjecture, really.

DR. LAND: Yeah. I don't -- you know, I can think of one cancer that is -- there's a particular kind of liver cancer that seems to be associated with -- with --

COLONEL TAYLOR: Radiation?

DR. LAND: No, vinyl chloride exposure.

COLONEL TAYLOR: Okay.

DR. LAND: And that's a -- that's sort of -- I hate to use the term, but slam-dunk. It's -- it's something you could -- you could say okay, they have -- they have this particular kind and

they were exposed to -- to vinyl chloride, the vinyl chloride did it. I don't think --

COLONEL TAYLOR: We can do that --

DR. LAND: -- I don't think you can do it just from the fact that somebody was exposed to radiation, no. Actually radiation is -- is much more complicated.

COLONEL TAYLOR: It -- it -- it appears to me that, one, it's an individual thing. It has a higher number of variables than almost any other judgment we're trying to make. We have a number of ways of trying to assess it, and that's under a constant change, as you see from BEIR V and VI and the rest of them, the report. And I'm just wondering if we can ever go to the direction that will simplify to the veteran population to say if you end up with this type of cancer, you can fairly well rest assured -- we won't be positive ever at all. You'll be fairly well rest assured you can be considered having been exposed to radiation to this degree or something.

DR. LAND: I -- I --

COLONEL TAYLOR: I'm just wondering if we will ever get that way or not. That's what I'm

really --

DR. LAND: I don't think -- I don't think so. I think it's pretty -- it's pretty well-established that just about all the cancers that are -- that are radiation-related are also -- also occur in the absence of radiation.

COLONEL TAYLOR: Okay. So there's almost no unique cancers to radiation?

DR. LAND: I know of none.

COLONEL TAYLOR: Good. Thank you, sir.

VICE ADMIRAL ZIMBLE: Of course -- now by statute we now have 21 specific diagnoses of cancer which if a veteran is exposed to radiation -- the presumptives. And if a veteran is exposed, it -- on site, it is deemed this will be --

COLONEL TAYLOR: You gave me the word I was searching for, Admiral --

VICE ADMIRAL ZIMBLE: -- presumptive.

COLONEL TAYLOR: -- and that was presumptive.

VICE ADMIRAL ZIMBLE: And -- and they've done that now by law for 21 types of cancer, fairly broad.

Now, the whole dose reconstruction process is for the -- is geared towards those individuals

who have other conditions that are not presumed to be caused by an ionizing radiation. So in that case, we have to find a way of -- of ascertaining whether the ionizing radiation causes it. So process number one is to estimate the dose.

COLONEL TAYLOR: Yeah.

VICE ADMIRAL ZIMBLE: And -- and once we get that dose -- let's say, for example, someone comes up with a dose that's been calculated as 9 rems, 9 rems is his dose. If so, what? So now you have to go over -- decide whether or not 9 rems is --

COLONEL TAYLOR: Would constitute --

VICE ADMIRAL ZIMBLE: -- an adequate dose to cause a specific cancer. Now, how do you come up with what dose will cause a specific cancer, and that's what the IREP is all about. So they have done many, many studies, and in each study they come up with a number that looks like it's the right number to be causing the cancer. It may be -- somebody may say 50, so when they say no, it was 60 rems, another study, looking at a different population, came up with a number 80 rems. So now you've got a number. You look

for where is the -- where's the median, where's the --

COLONEL TAYLOR: What's the validity of that number, yeah.

VICE ADMIRAL ZIMBLE: -- what's -- what's the average of all these studies, and that would be 50 percent. That's the peak of the curve. So you say all right, it looks like 50 rem -- 50 rem is going to be the dosage that's going to be necessary --

COLONEL TAYLOR: Yeah.

VICE ADMIRAL ZIMBLE: -- at the 50 percentile. But now -- we said no, wait a minute. Let's give that veteran the benefit of the doubt. Let's say what would it be -- let's go three standard deviations, go up to 99th percentile.

COLONEL TAYLOR: Uh-huh.

VICE ADMIRAL ZIMBLE: In that case for this cancer, what it would be, and you look at -- back at all those studies and look at the numbers and do the standard devia-- all the statistics, all those numbers, and then you come up with another number that says 33, 33 rem would be -- at one cha-- or -- you know, not -- one chance out of 100 that a dose of 33

rems will cause this cancer. And -- and so that's giving every benefit to the veteran. And then we look at -- well, we'll see 9 rem? That doesn't come close to 33. That -- really this particular cancer must most likely have been caused by something else. That's -- that's the whole issue.

COLONEL TAYLOR: Thank you for going into that much detail. And I'll tell you, there's some reality to it. For example, I am aware of a veteran that was at Enewetak, died about ten days ago. His widow has been in contact with me and asked for some papers he gave me, which I have to return to her. But he is in a situation of having a cancer. He has not been able to get a doctor to relate it to radiation. And our suggestion to him is go and get a couple more medical opinions and see what the validity of that is, and we will approach it from that direction to -- to take advantage of giving the veteran the benefit of the doubt. So it is an operating need that happens in the -- in the veterans' community now and will continue. That's why I brought the subject up. Thank you.

VICE ADMIRAL ZIMBLE: Mr. Pamperin.

MR. PAMPERIN: Dr. Land, I do have a question for you, but I also -- before I ask the question, I feel compelled to make a clarification on herbicide because it frequently gets mixed with radiation, and it's a -- it's a concept that I think is generally not well understood.

The presumptions for herbicide should not be interpreted as meaning that you were presumed to have been exposed. There is a separate regulation that says that if you are an in-country Vietnam veteran you will be presumed to have been exposed to herbicide. Now we have extended that to certain select units of the 2nd and 7th Infantry Divisions in Korea during a 14-month period in 1968/'69. But any other veteran who does not meet those specific criteria has to document that they were in fact exposed.

Once you are exposed, due to the NIH studies of herbicide, we then will presume -- much like radiation -- that your cancer was as likely as not due to that exposure. Okay? So having a cancer does not mean that the VA presumes that

you were exposed to herbicide.
But Dr. Land, you did say in your discussion that there are two versions of the IREP model, and that the -- as I understood what you said, the NIOSH has made a couple of changes for ease of entry of data, but you also said that there were some changes for certain cancers.
DR. LAND: Uh-huh.
MR. PAMPERIN: Are those changes for certain cancers more favorable, less favorable and, to the extent that you know it, do they involve either skin or prostate?
DR. LAND: Involves -- one of them I can remember now is -- is malignant melanoma, for which we just didn't have enough information, and -- although we did have information on basal cell skin cancer, and NIOSH decided that they would use the rule for basal cell skin cancer and apply it to malignant melanoma.
It's an administrative decision. I don't think -- well, it wasn't some-- wasn't something that we could advise, but they -- yeah.
MR. PAMPERIN: Thank you very much.
VICE ADMIRAL ZIMBLE: Dr. (sic) Beck?
MR. BECK: If that's the case, if -- what does

the VA use for melanoma then, if they're using IREP? Is there something in IREP for melanoma?

DR. LAND: Do they -- I -- as I understand it, I -- I converse with people there once in a while, and they have a rule that if -- that they'll -- they'll do it both ways and they'll use whichever one is more favorable to the vet. There isn't a lot of difference. There really isn't. It's just -- there are just a few of these -- a few sites, and the difference is -- is -- is more than we -- it isn't that we didn't say something. We said we couldn't do anything. We don't -- we didn't have the information. And the -- whether -- whether it's a reasonable thing to do to take the -- the estimate for a small cell -- sorry, for basal cell carcinoma and apply it to malignant melanoma, I don't know.

MR. BECK: I guess I --

DR. LAND: It's just -- it's just a -- you know, it's an administrative decision, yeah.

MR. BECK: But since -- basically if -- they can't go to IREP and get a dose for melanoma. Is that what you're saying?

DR. LAND: Well, you can certainly get a skin

dose. You couldn't -- you couldn't --

MR. BECK: I mean can you get a PC?

DR. LAND: -- you couldn't go to the one -- the version that's on our web site --

MR. BECK: So if you --

DR. LAND: -- the archival version, you couldn't -- you wouldn't --

MR. BECK: So presumably the VA must be using the NIOSH version if they're -- is that correct?

MR. PAMPERIN: Yes, we're using the NIOSH version.

MR. BECK: I just wanted to clarify it.

VICE ADMIRAL ZIMBLE: Okay, any other comments? Dr. Boice.

DR. BOICE: Charles, you know you had mentioned that these radiation risk estimates are population values, but then they're applied to the individual, taking into account the characteristics of age and gender, time since exposure, time of diagnoses, and then for one instance cigarette smoking's taken into account for lung cancers. And the probability of causation does change --

DR. LAND: Uh-huh.

DR. BOICE: -- whether or not -- for that instance whether someone is a smoker or not. If they're a smoker, the probability of causation is lower than a non-smoker. There are variations among individuals. In -- perhaps on the current version or in the revision, are you going to consider taking into account other personal characteristics? The first thing I think you might have mentioned, you know, there are other cancers that are caused by cigarette smoking. There are other factors that perhaps could be easily put into the sophisticated program such as family history of certain sites. These would -- you know, using the words that we've become familiar with, may be more fair to an individual because we could hone in on specific characteristics than using general population values, so the question would be, in your thoughts of -- in the updates, in the revisions, of taking into account these other individual characteristics.

DR. LAND: Okay, just a -- in the first place, nobody's asked us -- asked us to update it. But if we were asked to update it -- gee, this

is the -- sort of one of the things that I'm most interested in what is -- is the interaction between other things and radiation. But unfortunately, there aren't very many of these things that -- of these other factors that we know that much about. And I would -- I would do it if I could, but I don't want to -- I don't want to over-reach and get -- and make -- make a -- make a sweeping statement that is maybe not true. That's basically it.

DR. BOICE: Just a final comment, but there are sites -- we know about smoking and other cancers --

DR. LAND: We know that's --

DR. BOICE: -- pretty well, and also family history, and there's probably less uncertainty in those population characteristics than some of the uncertainties in DDREF and radiation effectiveness factor and the other things that you're using in the model.

DR. LAND: Well, John, I respect your opinion. You know a lot about this. I -- the question is, it's -- it's like it's a competing risk factor or -- but the interaction, the question of the interaction, that's -- that's the --

that's the one that you'd have to -- you would actually have to have the information. I don't -- I'm not sure that it's there, but we can -- we can talk about it. We will talk about it.

VICE ADMIRAL ZIMBLE: Just in --

COLONEL TAYLOR: (Off microphone) (Unintelligible) the fact -- you're speaking of factors, there's one that immediately comes to mind to me. Not smoking, but living in close proximity to a smoker. I'll give you a personal example. I've been married to my wife for almost 50 years. She's an avid smoker. I have never smoked. What application that may have to me is one of those cases that could impact into this because I think it does make a difference.

VICE ADMIRAL ZIMBLE: I think we're getting into the too-hard territory. One of the things you did -- one of the things that you did mention was aging itself as a -- as a major factor. But having said all that, I think we have a process and we have created a system for assessing and -- and bending over backwards to make sure that -- that the likelihood of the radiation being part of the problem is being

expressed. And if it's more likely than not, we're going -- we're going to go in favor of the -- of the atomic veteran.

Dr. (sic) Beck, you had a comment?

MR. BECK: I just had a question for Dr. Land. This whole issue about human variability and the fact that you're using a population statistics, how much is that human variability included in that 99th percentile -- is it? Is that -- uncertainty due to that included in that?

DR. LAND: No, it isn't. It's the -- the uncertainty is about the population property, not about individual properties. No, you have -- this is -- this is -- this is getting into real difficult philosophical territory. As I see it, this is a societal decision or a -- a -- something that we've agreed to do, the same way we agreed to -- to have our -- our life insurance premiums decided in part by -- by statistical life tables. They don't -- they only apply to the population, they don't apply to the individual. Risk in general, the -- the -- we talk about risk to individuals, but it's kind of -- it's -- it's kind of -- well,

metaphysical, really. It's -- we know what we mean by it, but -- but -- but the only thing we can verify is risk to a population because that we can measure. You have to count things. You have to be able to count things. And if you get -- somebody gets cancer or they don't. It's just one -- and John is -- really wants to weigh in.

DR. BOICE: No, no, it's just a quick question. You know, you're using an analogy with actuarial tables, which is a -- you know, specific to various birth cohorts. But the risk estimates are related to a population that was alive in one calendar year, 1945. And so the changes over the last 50 years in that one particular population in Japan must have a great uncertainty in how they are generalizable to populations -- say of Americans born in the '60s and the '70s. And so that seems like that's another uncertainty that's -- I don't believe is addressed so specifically. I could be wrong, but you take into account the transport factor from Asian countries to western countries and take into account variations in the relative risk and the

absolute risk. But the changes based on that one particular cohort of persons alive in 1945 -- I'm not sure how one could take that into account.

DR. LAND: That's the problem, how do you do it, yeah.

VICE ADMIRAL ZIMBLE: You have to find -- you'd have to find a like population exposed to an atomic bomb blast at 20 kilotons. That's something we don't want to do. Dr. Swenson.

DR. SWENSON: On a final question, IREP is supposed to be updated. Do you have any information on when that might happen?

DR. LAND: Nobody's asked us to do it. It's a big chore. Actually we have other things to do. If somebody -- if we -- if we're told to do it, we will, but no.

VICE ADMIRAL ZIMBLE: What's interesting is if there were a correction -- an update to the IREP, it probably would reduce the probability of causation, as I understand it. As you -- as you reduce the --

DR. LAND: You know, I don't really know, but I -- I think that it -- it probably might -- I think that it might increase the central value

and draw in the upper value. But until you do it, you don't know.

VICE ADMIRAL ZIMBLE: Okay, but it -- but I -- I would -- I would think that the veterans should be happy with the IREP being left alone where it is. I think it -- that the benefit of the doubt is going to go more against the veteran with a new IREP, so -- so I don't think we should push that too much.

Any other comments or questions?

(No responses)

Well, Dr. Land, thank you very much. You've certainly stimulated some interesting discussion.

A BRIEFING ON NAS REPORT "ASSESSMENT OF THE SCIENTIFIC INFORMATION FOR THE RADIATION EXPOSURE SCREENING AND EDUCATION PROGRAM"

DR. JULIAN PRESTON

Now according to the schedule we're to take a break between presenters, but Dr. Preston, if you don't mind, I'd like to move on and I'd like now to -- if that's acceptable to you. I have a short bio that I'd like to read about Dr. Preston. I can tell you one thing for sure, he's not a medical doctor because I can read his handwriting.

Dr. Julian Preston is the acting associate director for health at the National Health and Environmental Effects Laboratory of the U.S. Environmental Protection Agency which is located in Research Triangle Park in North Carolina. And until the end of 2005 -- which as I recall was only about two weeks ago -- Dr. Preston was director of the Environmental Carcinogenics Division of that Laboratory. Now he received a BA in genetics from Cambridge in England and a Ph.D. in radiation side of genetics from the Reading University in England in 1976. Dr. Preston has held a range of positions at the MRC radiobiology unit in Harwell, England and the biology division of the Oak Ridge National Laboratory and the Centers for Health Sciences. He joined EPA in 1999. He holds adjunct faculty appointments at Duke and at North Carolina State Universities. He serves as chair of Committee One of the International Committee on Radiation Protection. He is a member of the U.S. delegation to the United Nations UNSCEAR, the Scientific Committee on the Effects of Atomic Radiation. He's held many editorial

appointments, NIH review appointments, served on the board of NCRP. His current interests are centered on how to use mechanistic data in the assessment of health risks from exposures to radiation and chemicals. He recently served as the chair of the National Science Committee on Assessment of Scientific Information for the Radiation Exposure Screening and Education program. So he's got terrific credentials, as does Dr. Land, and we appreciate your coming, Dr. Preston, and presenting to us today.

DR. PRESTON: Thank you very much indeed. There'll be a slight moment before the presentation comes up. I realized a couple of days ago and this morning as we looked through our presentations, there were some typos in there and it's an embarrassment to have typographical errors in your presentation. One was right on the title line, which is even more embarrassing because it was the title of the report which I'm supposed to discuss today. So I wanted to let you know that in this presentation I'm speaking as the Chair of the Academy committee, and there's a tremendous amount of effort went into that committee

deliberations and report. And so you only see me as the spokesperson, not as the expert in all the considerations presented in the report, and certainly not as the one who did the majority of the work. One of the members is in the audience today and she I'm sure will put me straight if there are any errors.

You should also know that in a way this was perhaps one of the most difficult tasks I've ever had, to chair this particular committee, because it was a -- it had a very complicated charge, and also represented a very broad range of expertises throughout areas of ethics, physics -- radiation physics, radiation biology, epidemiology, medical screening and a screening and education program. So we had a broad range of expertise, and bringing all that together was a tough task.

The other tough task is that I've got 30 minutes to present to you what amounted to a several-hundred-page document that took us two and a half years to pull together. So you'll see I've taken little bits from that in order to provide you with some feeling for how we went about our work and what our conclusions or

recommendations were.

So here's the title, the correct title. It's not quite the same. I had an extra word in -- I've still got the extra word in this one, excuse me -- Assessment of the Scientific Information for the Radiation Exposure Screening and Education Program is the correct title for the report. I've got an "and" in this one. That's the Academy report I'm going to tell you briefly about, and I'm going to cover just the part in how we established the approach for compensation.

And you realize here, this is -- this report covered the compensation that is part of RECA, which is the Radiation Exposure Compensation Act. So when we started our business, our job was to reassess that particular Act to see whether there, with all the scientific information that's been developed over the past many years, whether that would impact the risk estimates that would be used in such a radiation compensation program, and also to establish whether the criteria used in that program were the appropriate ones. And you'll see that we have decided that was not indeed

the case. But you also need to appreciate that we, as a committee of the National Academy of Sciences, is a scientific committee so we addressed scientific issues. And you'll see in some of the recommendations that we did not make policy recommendations. We made scientific recommendations.

And also you'll see some familiar words here because quite a few items in my presentation build upon things that Dr. Land explained to you, and so I trust if you understood everything he said, there'll be no need for me to explain any of the items that relate to his presentation.

That's just really to remind me that that's the report I'm talking about, the Assessment of the Scientific Information for the Radiation Exposure Screening and Education Program. I put that up again because I said I've sort of decided this was one of my most difficult tasks, and so I just wanted to remind myself of the picture on the front of the cover. I get a good feeling whenever I see this one.

Okay, here's the starting point. Here are the RECA criteria. I explained what RECA is, so

the -- the guidelines that we already had, the criteria we already had, the person -- to be eligible for compensation -- is in a specific class defined by the RECA, and that the person has developed one of the specific cancers or other diseases specified by RECA. So we had a list of diseases and a list of specific classes.

Here are the criteria. So in this case I wanted to define our population for consideration, and that is -- these are all populations that are associated with the nuclear tests at the Nevada Test Site, and the populations covered are uranium miners, uranium millers, ore transporters, downwinders, and on-site test site participants.

I apologize that this is small. The only way that I could get it on -- appropriately on one slide was to have it fairly small. It's taken straight from the report, and that's a list of the diseases covered by RECA. And we've had some discussion of the classes of disease that are covered under various compensation schemes.

The top half of the table are malignant neoplasms or cancers. The first column, the

diseases and conditions, outlines for the cancers, the different tumor types that are agreed in the RECA to be radiation-induced, or potentially radiation-induced types of cancers. They're called radiogenic cancers.

And you can see for the different groups of individuals -- the miners, the millers, the ore transporters, downwinders and on-site participants listed across the top of the table, you'll see that for different groups of individuals there are different tumor types that are included in the compensation. So you can see for downwinders and on-site participants, the vast majority of the tumor -- the radiogenic tumors are included in -- as eligible for compensation.

The non-malignant conditions, the last few lines of the table, indicate non-tumor, non-cancers, that are eligible for compensation, largely in the miners and the millers and the ore transporters. In this case -- in response to one of the questions that was asked, in this case for the miners it would be considered that a lung cancer, for example, was radiation-induced and not induced by smoking. The --

although, you know, you can't prove that is the case, that's part of the compensation program was that lung cancers, because of their strong association with uranium exposures, were considered to be radiation-induced cancers exclusively.

So that gives you an -- so -- you know, that particular discussion varies according to the particular group of individuals under consideration. But that's the list of diseases that were currently covered when we started our work.

Part of our task was to assess whether this is the appropriate set of diseases, and particularly whether additional cancers should be added to that list or whether non-malignant conditions that might be radiation-associated should be added to that list. We took the position that -- I think appropriately so -- that we were not going to consider removing any of the diseases from this list.

Here's part two of what we already had in place, and this caused us a considerable amount of discussion. It took us probably and year and a half of our time to decide exactly how we

would address this issue. And this map here shows the areas covered by RECA. And you can see in the yellow the states where there are uranium worker states -- that's uranium miners, millers and ore transporters, et cetera -- and then there in the light blue are downwind counties considered to be areas -- counties are -- would be impacted by the fallout from the nuclear test site, the Nevada Test Site. And then there's a green region which is an overlap region between uranium worker states and downwind counties. So if you add up the green and the blue, you get the counties that were, at the point of our deliberations, currently compensatable (sic) under RECA.

So you can see that the areas that were covered by the Radiation Exposure Compensation Act were based largely on geography and not on any other specific scientific criteria.

Now that wasn't really the -- the fault, shall I say, of setting up such an arrangement because the scientific information available at the time did not necessarily allow for anything more complex than the geographical distribution of compensation. But by the time we, in 2003,

started our deliberations, then additional information allowed us to consider alternative approaches.

Now why did we consider that we should really -- let me go to this slide first, then I'll move to what I was going to say.

Here's the charge to the committee then. Based upon the fact that there was a set of compensatable diseases, diseases eligible for compensation for different populations, and that there were areas already compensated for those disease types, what was our charge?

Well, I've only taken part of the charge and the part that I'm going to be able to cover today, and that is to make recommendations to HRSA that are based on scientific knowledge and principles -- that was the agency that was commissioning the Academy to conduct this particular study -- and in particular whether other classes of individuals -- that's other populations -- or additional geographic areas should be covered under the compensation program. That was our charge.

Added to that was the fact that we were required to consider all the recent

information, which included the BEIR committees that Dr. Land talked about, updates on the populations from the atomic bomb survivors in Japan -- all that information, to take that into account as well in reaching our deliberations. So we had a very broad mandate in order to reach this -- what appears to be a fairly straightforward set of recommendations. So here's what -- here's where we started in our consideration of the geographical area discussion and the additional groups of individuals that might be eligible for compensation. Now this particular graph shows the dose to the thyroid on the left-hand axis, and then a -- the -- and we took the counties in Utah, which was one of the areas -- geographic areas that was compensatable under the RECA. At this point these were all related to the nuclear -- the Nevada Test Site, NTS. And in this case because, as Dr. Land mentioned, you know, that the age at exposure and the age at diagnosis makes a difference, and the duration of exposure in a particular region of the country makes a difference, this particular graph just shows the calculated dose

to the thyroid. We concentrated on the thyroid because that was -- the major radionuclide from the tests was iodine 131, which has a propensity to concentrate in the thyroid and thyroid tumors are the major tumor type.

So here we have along the bottom axis -- the axis, we have the counties in Utah. And if you look, there are some that are dark and some are open circles. It just so happens that the dark circles are the counties that are compensatable under RECA and the light circles are those that are not compensatable under RECA. So you can see that based upon the geographic distribution you get a rather strange phenomenon that there are some of the counties where the absorbed dose was the lowest that were compensatable, and some of the counties that had a relatively high dose -- relatively high in this context, not relativ-- not a relatively high dose in a broad context, but in this context -- that were not -- not compensatable.

Put another way, it's another way of looking at some additional data, here's a dose to the thyroid -- this is dose comparisons (II).

Here's the absorbed dose to the thyroid, again

for a person born in 1948 who resided in the same county for the entire period of the nuclear -- the Nevada Test Site testing, those are the solid circles. Those are some of the counties in Utah selected from the previous presentation. But on the right-hand side are a set of thyroid doses for individuals in other states within the U.S. where individuals would fit the same criteria, and so those are the open circles. And so you can see for Idaho, Montana, Arizona, Nebraska, Indiana, Tennessee, New York and Vermont, there's a range of different doses to the thyroid for this particular individual or groups of individuals who met the criteria described in the legend. And you can see that -- in fact in Montana was the highest dose to the thyroid, higher than any of those in Utah which were compensatable. So we saw that on a scientific basis and just on dosimetric considerations, there was a need to reconsider the compensation program.

So that's where we moved into our deliberations on how we could use science to enhance the process of compensation. And we decided that some form of a risk-based approach was clearly

the way to go. So I -- the committee recognized that including the absorbed dose -- so I'm going to read some of these parts -- in the determination for eligibility for compensation would not be sufficient because the risk of radiation-induced cancer depends on, as Dr. Land explained, the age at exposure and age at diagnosis, in addition to dose, as well as to other factors. So we couldn't just use the dose; we had to use some additional approach.

We originally thought well, maybe the dose will give us a reasonable approximation of relative probabilities of cancer. But we appreciated early on that was not going to be the case. So a process based on risk would use dose and the other criteria to determine probability that an identified cancer was caused by radiation rather than by other agents. So that's the whole idea of probability of causation. What's the probability that that particular tumor, one of the types compensatable by RECA, was caused by radiation rather than by other agents, and by lifestyles and by genetic considerations, some of the things that were discussed by Dr.

Land and came up in the questions. So we decided to move for a risk-based approach. I've used a slightly different example than the one that appears in the Academy report, and the probability of causation is an approach that is being used, and I give a couple of examples in the U.S. Coming from the EPA I'm a great believer in just using initials for everything. I can almost give now a whole conversation without using a single word. And in the UK is also an example which I'll give which uses a different part of that. Yeah, the UK you probably understand is the United Kingdom, which is dear to my heart. Originally called the probability of causation, it's more appropriately called, as Dr. Land described it, the assigned share, which I think he is responsible for defining that particular use. So the probability of causation or the assigned share is just the risk that a specific radiation-induced tumor will develop at a given age over -- with our -- our baseline is the risk that a specific cancer from all other causes will develop at the same age. So it's the relative relationship between a cancer

being -- a radiation-induced cancer will develop at a given age versus the -- that specific cancer will develop from other causes than radiation. And all other causes are linked together at this particular juncture. Well, the issue that we faced immediately -- and it's one that we -- I have to tell you that you'll see in the recommendations that as a committee we punted on. And we punted on this particular issue because it concerns policy. As Dr. Land pointed out, it matters a great deal as to what you define as your probability of causation, and it depends very much on what you consider would be the credibility interval or the confidence interval that you would put upon that probability as to how far out in your distribution of risk you are prepared -- or probability of causation you would be prepared to compensate. Well, that's a policy issue. We provide some guidance on what different choices would mean, but we did not come down for a specific value. Not only can you change the credibility interval for which you would -- on which you would base compensation, you can actually suggest different probability of

causations. You do not have to use the 0.5 value if you so desire. There are obviously reasons for using that, as I'll just go through on this particular slide.

So a significant issue is the choice of a value of the assigned share that is accepted of proof -- and clearly I put "proof" in quotes because there is no proof -- we discussed that during the question time just now -- that radiation was responsible for the diagnosed cancer in any individual. But that's really what the starting point is. You have to assume that these are radiogenic cancers and there is some probability that it was caused by radiation. So what do you say -- what will you set as your proof value? That is, at -- this is the level we're going to consider as being a tumor is as likely or more likely to have been induced by radiation than not. That's the proof I'm talking about here.

So a value of 0.5, a probability of causation value of 0.5 assumes that it is as likely as not that the cancer was caused by radiation -- says 50 percent chance it was caused by radiation, 50 percent chance it was caused by

something else. And a PC value of greater than 0.5 assumes that it's more likely than not that the cancer was caused by radiation. So as soon as you go over 0.5, it's more likely than not that the tumor was caused by radiation. So what value you choose is very important.

We did not recommend a particular value, but most of the examples that we used used 0.5 because we felt that was a -- on the basis of other compensation schemes and based on the way that the PC was developed, was the appropriate place to start.

As Dr. Land said, of course radiation epidemiology, radiation dosimetry, risk estimates, they all have a degree of uncertainty. The more we know, the greater the hope that we will reduce that uncertainty, but there is uncertainty. And so you can't set up a program, we decided, that did not take account of that uncertainty. So uncertainty needs to be incorporated into the decision-making process. So any way you make decisions on compensation, make sure that you don't lose sight of the fact that there's a degree of uncertainty.

And this is just, again, to make the point, perhaps slightly -- a slightly different way. Obtaining this -- these probability of causations, the probability that a tumor might have been caused by radiation, is a process of determining the excess relative risk for a person exposed to radiation and diagnosed with cancer. In this case, the way that this probability of causation is used in the compensation program is that it's sort of a post-- post-diagnosis approach. The person has a cancer. You then determine the probability that that individual had -- received that -- or had that cancer induced by radiation. You don't say, for an unknown population, what is the probability that that population will get so many cancers in it based upon radiation exposure. This is a post facto compensation program.

The determination of this excess relative risk for a particular person must rely on dosimetry, in part, to determine the dose. And this dose is generally measured through a dose reconstruction process. And that's trying to link it up to the deliberations that you're

having. The dose that you would use in order to determine -- this excess relative risk or probability that a tumor was induced by radiation requires a dose somewhere in the process, and the dose is generally measured through a dose reconstruction program because you do not have a direct measure of dose. In the particular case we were considering here on the downwinders, there was no measured dose. It was done through a reconstruction process. Now here's where some of the bits look familiar, but it was important I think for me to go through the deliberations that we had and how we reached our particular decisions. There'd be no point in recommending a program incorporate dose and risk and probability of causation if there wasn't some way to get that information from the literature or from the web in some -- in some form. So you can describe the most efficient compensation program, but if none of the information is available, then it's a rather foolish recommendation. So we decided to look at what was available in order to enact a compensation program of the type we were describing.

So here's the radiation dose and risk assessment, and I took the NCI 1997 iodine-131 study, and that's where we got a lot of the information that said hey, wait a minute, if you just take thyroid dose for those states (sic) in Utah, you could find other states within the U.S. that had higher dose estimates. And it was based upon the fact that the NCI had done a very thorough investigation of the iodine-131 depositions as a result of the nuclear -- the Nevada Test Site atomic bomb tests, and that was available at the national level. Without that, of course, we couldn't recommend expanding the geographic areas for compensation.

So radiation doses to the thyroid from iodine-131 released from the tests at the NTS were mapped. And we worked with updated maps provided by NCI, including those that included other radioisotopes. So we started out with the fact that there was information on iodine-131. But of course from these particular tests there wasn't only one radionuclide present in the fallout, there was a whole range of radionuclides. And we thought that it would be

important to have information available on those other radioisotopes, and the updated maps provided by NCI did include some of that information.

And NCI, as Dr. Land had talked about, developed a dose calculator that uses a variety of information. This goes back to an earlier slide. Just having dose is not sufficient. In order to estimate risk, you need other information. You need the date of birth because you're trying to relate an individual's dose and risk to where they were within the nuclear test cycles. The sex because there are sex-specific cancer risks. Locations and dates of residence because we're now talking about the whole U.S., in effect, for the compensation program, not just states in Nevada, Arizona and Utah. And milk consumption patterns because that's important for estimations of dose at an individual level, the amount of milk drunk, and thus the exposure from different radioisotopes can vary.

I put this up, it's just moving us in -- along in the discussions. This was a geographic distribution of estimated total dose, from all

tests, to the thyroid of children born on the 1st of January 1951. So you -- I'm pointing this out -- and who were average milk-drinkers. So you can get a geographic distribution of estimated dose. So for this particular case where we were interested in down -- not only, but for the -- most of the discussion here on downwinders and their exposures, you can see that we can get, for the whole of the U.S., a distribution of dose. And you can see that there are dark areas in Nevada and also in other regions of the country. Particularly dark doses (sic), those were the higher dose levels. They weren't restricted to those areas that were compensated.

So we said okay, we'll take, in effect, the whole U.S. as the potential area, not based on geography but based upon the exposure, as a region potential compensatable or eligible for compensation under RECA.

The draft feasibility study that Dr. Land talked about then calculates the deposition densities from fallout for the 33 other radionuclides. So we had available information on a range of radionuclides that would allow us

to expand our deliberations to more than just iodine-131. But in general, and this is the -- this came up a little bit in the discussion we had just now. In general, as you get more and more information and -- on risk and on exposures, it tends to work to reduce the proportion of individuals who might be compensatable under, in this case, RECA. Because if it just does it on geography, then anybody who gets a tumor in a particular region is compensatable, irrespective of the radiation exposure; it's based on geography. When you start bringing dose into the consideration, that changes the compensa-- the compensation procedure quite significantly. So in general the doses are very low for radionuclides other than iodine-131, particularly in comparison to the dose from external radiation.

I just put this up to show that there were also calculations of external and internal dose to the bone marrow of children born on -- again a particular date is selected -- so that you can use these sorts of considerations for the estimation of risks from leukemia, for example, which is a very well-studied and clearly radi--

has a large component of radiation-associated development.

Dr. Land said that nobody'd asked him to update the IREP. You'll find out in a minute that somebody hasn't asked him, but they've made it clear that it needs to be updated. But there's also, in terms of radiation dose estimation, there's clearly more work needed for the iodine-131 dose and thyroid cancer risk based on new data. So each time that the -- not only a new report, but new studies are done on radiation-exposed populations, one needs to update the various components of a risk-related compensation program. In this case, the better the dose estimates are and the better the risk estimates are, the much more effective calculation of a PC and eligibility for compensation will be obtained.

In fact, in 2003 the National Research Council said that -- declared that additional work for other radionuclides was not warranted, in fact, because of very small doses and uncertainties in distribution and location. They felt in that particular report that the information that could be developed for other radionuclides

besides iodine-131 would not be warranted because at very small doses, whatever probability of causation criteria one established, it would not be likely that the individuals would meet those specific criteria. We did not take that as our point. We decided that it would still be important to at least have the information available to be able to conduct calculations to establish whether this view could be upheld.

So having said that there are -- here -- here's the information that you need in order to conduct a probability of causation. We felt that there is dosimetric information available and there certainly are risk estimates available from a variety of national and international committees to allow a PC to be calculated. But then that seem-- had -- has to be a method of being able to calculate the PC. And fortunately, as Dr. Land again pointed out -- so I said if you remembered what he told you, you'd understand what I was talking about -- there were -- are available these NIH radioepidemiological tables. So these were intended to provide a means for estimating the

likelihood that a person -- now we go to a person -- who has or had any of several radiogenic cancers, those I told you were defined by RECA, developed it -- or that cancer -- as a result of exposure to ionizing radiation. That's the derivation of the radioepidemiological table, and it's a tool that's available to -- for any individual, appreciating that probability of causation was calculated for populations, the need for compensation is to be able to extrapolate that particular approach to an individual and it -- That's what CIRRPC means. It's the Committee on Interagency Radiation Research and Policy Coordination. Then -- so going from the dosimetric information and the risk information, so for screening claims -- and this is what -- what CIRRPC did, for screening claims of radiation-induced cancer -- that's what it was established for -- a person passed the screening test when there was at least one percent probability that the estimated PC/AS exceeds 0.5 -- that's what that 99 percentile is doing. It says that there's a one -- at least a one percent probability that the

estimated probability of causation exceeds 0.5; 0.5 says that cancer was as likely as not caused by radiation. CIRRPC's compensation then says okay, but we'll allow at least a one percent probability that -- that the estimated PC exceeds this as-likely-as-not determination. This approach, it was decided by CIRRPC, would still avoid development of those cases for which there is virtually no chance that the true PC would be as large as 50 percent. So that -- they -- they felt that the -- in this particular case, by establishing these criteria, you would still, in a screening -- by screening claims, would establish that there was -- that those cases for which there is what was described as virtually no chance. I'll show you in a minute how we -- we handled that particular issue.

I'm using some of the examples that are already available because we did not want to re-invent everything. If there were things already -- compensation programs that were being successfully conducted, or information that was available we could rely upon rather than deriving everything ourselves.

There were some revisions to the NCI-CDC calculators which were important, and these came along in -- during the period that we were conducting our deliberations. And these are important and will continue to be important as we move forward.

There were new incidence and mortality risk data, which is important, particularly in the -- when I emphasize incidence, because what we are looking at in compensation programs are incidences of cancer, not necessarily mortality from cancer, and that's an important point. Most of the risk estimates up until relatively recently were based on mortality estimates, or deaths from cancer, and not on the incidence of cancer. So that's an important addition that allowed us to propose this for use in a compensation program.

The calculation of risk and assigned share was available for all ages at exposure. That's particularly important, and it was particularly important in the cases that we were looking at to be able to estimate exposures for very young children who were exposed particularly to iodine-131 where the risks are increased

compared with adults.
There were new -- new cancer sites were added, new analytic approaches, and more attention to uncertainty and the presentation of risk. Fortunately in 2003 these revisions were made, and they were greatly advantageous to our proposing the PC/AS approach for compensation in RECA. And the use of organ-specific equivalent dose, that might be less obvious to some of you in the audience.
And that -- the Interactive Radio-Epidemiological Program was developed for estimating the PC/AS. And Dr. Land talked about that, and it's a -- it's actually a -- what I would describe as a fairly remarkable tool that's available that the -- you can, if you so desire, go in with a certain amount of information available and calculate the specific dose that you would have received from, in this case, the Nevada Test Site fallout. It's -- so it can be done at an individual level and you can find out your own exposure level, if you so desire. And we conducted some of this for our own benefit to just see what range of exposures there were in

the committee. You can obviously tell from that that the majority of the committee were around at the time of the nuclear tests, which is not necessarily surprising.

Implementation of IREP, so we've gone through some of the needs for a compensation program based upon scientific considerations and not based upon geography. We've looked at some of the ways that might be done. But has anybody -- is anybody using this type of approach already in compensation programs that might give us, (a), some information on how to improve our recommendations, or give us some confidence that we're not walking up a road that's never been traveled.

So there are compensation programs, and NIOSH utilizes the IREP, as was mentioned, and also EEOICPA uses a modified version of this NIOSH-IREP, so they're actually using this -- these epidemiological tables in the tool to -- in their compensation program, with slight modifications, as discussed. There are already in use PC-based compensation programs, which gave us some reasonable degree of not confidence, but a sense that we were not

proposing something that was totally irrelevant.

Here's -- there was some other quite interesting uses and -- that take into account the fact that there is a distribution of the probabilities, as -- and of dose and of probability of causation, and there are different ways of accounting for that.

And the British Nuclear Fuels developed a compensation scheme themselves for radiation-linked diseases. The British Nuclear Fuels ran a lot of the nuclear reactors in the -- in Britain, and they adapted it from the risk models developed by BEIR V -- which you mention -- we mentioned the BEIR committees of the National Academy and National Research Council. And what they did was use a sliding scale for compensation, and I'll show you how that works. I think I'll show you how it works. There's the graph, but here's how it works.

Along the axis along the bottom is the probability of causation, and you can see where 0.5 falling in the middle, and up the other side is the percent of compensation that would be received for different probabilities of

causation. So there's a -- the -- there's a linear approach you could use which are the open -- open symbols that are joined together. What the British Nuclear Fuels did was to use a step-wise compensation so you didn't compensate for every single variation in the PC. You compensated for groups of probability of causation. So you can see that at 0.5 -- it's quite difficult to work this thing from here -- at 0.5 probability of causation that compensation would be 100 percent. And of course anything above 0.5 for the PC would remain as 100 percent compensation. And as you come down the PC level, then different levels of compensation were -- would be allowable. And that's one approach that we discussed. But again that becomes policy. We pointed out that that was one way of handling variations in the PC and the distribution, but we did not recommend that that be the method utilized by RECA.

So I've gone through some of the process that we went through. And I say it's brief. It's a 400-page report. But what I wanted to do then was to try and build what I talked about into

the recommendations that we came up with, and this is only some of the recommendations because some of the recommendations related to screening programs that you would need in order to establish the eligibility for compensation based upon the tumor diagnosis, pre-tumor diagnosis and so on. I haven't covered that part and I haven't covered, as I pointed out in the beginning, the education component.

Clearly every time you start talking about probability of causations and risks and comp-- and relating that to dose and compensation, you have a problem of communicating that to the individuals that really need to know that information. So RECA has associated with it the screening and education program where there is -- not, as we recommended, very well-developed, but there is an education component -- we recommended expanding that considerably -- to provide the information to individuals, not only about the screening program but what compensation meant in that -- in the context of these screens and radiation exposures.

So here's a short set of the recommendations to show you how we used our knowledge gained in

the earlier deliberations. So we said in our -- what it says recommendations, Congress should, you realize that this report was written and the committee was set up in response to a Congressional mandate, so we replied in some cases to Congress, sometimes to other agencies.

But "Congress should establish a process using probability of causation or assigned share to determine the eligibility of any new claim for compensation for a specified RECA-compensable disease" -- so that's the -- using this PC approach for any new claims, so it wouldn't be based on geography. It would be based on PC for these specific compensable -- compensable diseases that I've described in my earlier slides -- "in people who may have been exposed to radiation from fallout from U.S. nuclear weapons testing." So you also see we expanded it to say well, if you're going to expand the area based upon dosimetric considerations as well, then you should expand the nuclear tests for which eligibility would be available, which would include some of the Pacific tests and other tests within the U.S., not just the

Nevada Test Site tests. "Further, Congress should establish criteria for awarding compensation on the basis of computed distributions of the assigned share for any person making such a claim."

That's the one where I said earlier we punted on that. We didn't say what criteria they should establish. They could decide to establish a probability of causation of 0.3 and at 99 percent credibility interval. We left that to them. Obviously the way you set those criteria will determine how many individuals would be eligible for compensation and what the cost of such a program was. And we realized that if we had made recommendations of a specific nature, we might have recommended a program that will be so vast in cost that it would not be within the bounds of what Congress would consider was feasible. So we left that as a recommendation that they need to establish the criteria and did not specify those.

Here on recommendation number two I think relates to this idea of how large a group would be eligible for compensation, depending upon different criteria, but at the same time I

mention that the doses that were received in many cases were very low, and the probability of causation would be extremely small and might well fall out the guidelines that were set under any particular scheme. So we recommended here -- which was -- amounted from considerable discussions so that "prior to implementation of the compensation program, the NCI or other appropriate agencies should perform a population-based pre-assessment of all radiogenic diseases using the PC approach to provide guidance to individuals who might apply for compensation by determining the likelihood that any individuals in a given population have of being compensated. The calculation would use data for the maximal doses that such individuals may have received from fallout." So the idea here is that to avoid a large proportion of individuals in populations, because we've got the U.S. as our area of potential coverage, a pre-- some form of a pre-assessment should be conducted based upon a group -- a population -- at the population level. Not at the individual level, at the population level. You can define populations

how you wish. You can define them on geographical areas, you can define them according to dosimetric considerations. But within that population you take the maximal dose that any individual might have received in that and apply that to the whole population, and then you establish a probability of causation and determine whether, even at the maximal level, any individual would be eligible for compensation.

The idea behind this was to avoid comp-- not -- it wasn't to restrict compensation. It was to avoid or to give people a reasonable idea of the likelihood of compensation. So it didn't preclude -- it was not designed to preclude individuals from applying for comp-- for compensation, but to give them guidance on the probabilities. So we -- that -- I say there was a lot of discussion about that particular area, but we felt that was a -- that there would -- would be the fairest way to provide up-front information to individuals prior to their going through the process of applying for compensation, because in our case here with the downwinders, the doses were, in general, very

small, very low -- in radiogenic tumor terms. So this goes back again to some of the discussion that was in the last presentation and the questions. "Uncertainties can't be avoided" -- even -- even if we have all the information that we can possibly gather on the A-bomb survivors or other exposed populations, there will always be uncertainties -- "and may be part of the compensation decision process. And because of substantial gaps in the existing data" -- I put substantial because in some areas there's still quite large gaps in our knowledge -- "and the uncertainties in estimated doses, the uncertainties in the associated probability of causation estimate are large. This emphasizes the need to choose compensation criteria carefully." These are recommendations straight out of the report, so they read as though I'm trying to tell you something of my own. They're straight out of the report. "This emphasizes the need to choose compensation criteria carefully." And also, as mentioned, that would always be in favor of those applying for compensation because of the uncertainties. "For example,

the PC/AS value associated with a high percentile of uncertainty could exceed the criteria for compensation even for some very small median doses." So in a way the high -- the highest amount of uncertainty gives the broadest distribution and in fact gives the greater likelihood of being eligible for compensation. I think that was part of an earlier discussion that went on.

There's a recommendation that "The CDC and the NCI or other appropriate agency should complete dose estimates for all significant radionuclides in fallout from U.S. nuclear weapons testing to the population groups identified. This should include all the major sources of dose related to nuclear weapons tests considered to have potential health consequences that the CDC-NCI feasibility study described." So we're beginning to suggest that CDC and NCI complete the dose estimates that they had initially -- had completed for iodine-131.

I hope Dr. Land is still in the audience and hasn't had to go to the airport. "An updated dose calculator, similar to the existing NCI

dose calculator, should be developed for determining dose to the thyroid and other important organs." We feel in order to put such a compensation program as the one we describe into place, it is necessary to have some updated dose calculator that would expand beyond the one that's currently in use. We didn't tell NCI that. We told Congress that they should consider proposing that. So it's -- we haven't told Dr. Land to do it. We hope that somebody else will tell him or his colleagues to do this. "Such an updated dose calculator should be directly coupled to a risk calculator similar to IREP" -- so we are suggesting an update of IREP to include the additional information -- "that can compute this PC and propagate uncertainties for establishing credibility intervals or confidence intervals." So we recommend developing a risk calculator that would expand and allow such a compensation scheme as the one for RECA and the downwinders to be put into operation, would be available. That's the only way we -- such a scheme could be enacted.

And finally on recommendation six, on the bas--

these are not related to the recommendation numbers in the report, they're just the numbers I have in this presentation. "On the basis of currently available scientific evidence, no additional diseases should be added to the list of diseases that should be considered for compensation under RECA."

I gave you a list of diseases. We considered a number of other possibly radiogenic tumor types and agreed that on the basis of association with radiation or doses likely to have been received by any population in the downwinders were unlike -- well, would not be compensable under any circumstances, so we did not recommend adding any additional diseases.

This recommendation came in part because, as with the audience here, we held a number of public hearings in Utah and Arizona and Idaho to hear the concerns of individuals related to the mining industry -- the uranium mining industry and to the downwind exposures, and a number of other areas of concern, and part of our job was to consider all those requests for consideration of additional diseases and so on.

In our final recommendations we did not

recommend any other diseases be added to the list currently compensable by RECA. And as I said, we did not consider the removal of any of those during our deliberation.

So those were the major recommendations that we had for this program. So we started out with a program that was in place and saw how we could revisit that and reassess it and come up with perhaps a -- based upon the most current knowledge, an improved and more scientifically-based compensation program.

And said it took a lot of effort and a considerable amount of discussion, so what I should do is then to give credit to the individuals who worked on that committee. I said I -- I was at times a ringmaster and at times a cajoler, and I did contribute on some of the recent scientific sections of the report. But just to go through the -- Tom Borak is a physicist, a radiation physicist; Cathy Borbas is a health professional, health care evaluation individual; Randy Brill is an epidemiologist; Tom Buhl is a health physicist; Pat Fleming is an ethicist; Shirley Fry is an epidemiologist; Rick Hornung is an

epidemiologist with considerable experience with the uranium miners; Kathy Lohr comes with a broad range of experiences and was in the education screening program; and Steve Pauker is an M.D. who was responsible for initiating our discussions on medical screenings. So it was a very broad-based group and I said a great experience, but by George, I'm glad it's over. Thank you very much.

BOARD MEMBERS QUESTIONS AND DISCUSSION

VICE ADMIRAL ZIMBLE: Thank you very much, Dr. Preston, for that presentation. It -- I have one question regarding your slide number five, which is difficult to read, even with my presbyopic state. But are any of -- I counted -- I think I counted 20 diseases that basically are presumptive for RECA, at least for the downwinders, et cetera. Now is there any -- what's the variation -- variance between those diseases and the 21 presumptive diseases that are in the CFR for the Veterans Administration?

DR. PRESTON: I can't tell you specifically. There's a table in the report that does that. Are they the same?

VICE ADMIRAL ZIMBLE: They're the same?
DR. PRESTON: Yeah.
VICE ADMIRAL ZIMBLE: The skin is not included --
DR. PRESTON: No.
VICE ADMIRAL ZIMBLE: -- in the -- okay, 'cause I can't read that.
DR. PRESTON: And we discussed -- in the Academy we did consider skin cancer as a -- what -- what was the evidence for it being a radiogenic cancer, and the evidence was not --
VICE ADMIRAL ZIMBLE: Not there.
DR. PRESTON: -- not strong, yes.
VICE ADMIRAL ZIMBLE: Okay. Okay, thank you. Any other comments or questions? Yes, sir.
DR. LATHROP: I just had a question. I'm not sure I'm understanding your slide 15, which had the map of exposures. Were those exposures empirically assessed at each point on that map? And if so, it looks like it can't be explained by plumes from the Nevada Test Site.
DR. PRESTON: Well, I'm going to -- you know, I'm going to pass this one 'cause I've got the expert sitting -- standing -- well, sitting just to my right, Harold. Harold -- Harold has

had -- has been I think involved in pretty much all of these --

MR. BECK: I'm guilty somewhat of having been one of the individuals responsible for calculating those doses. There was a feasibility study, by the way, which is why they recommended that it be completed. But to answer your question, those are county averages, and they do not necessarily represent the fallout. They represent the mean dose to individuals -- to all the individuals in that county based on their milk consumption, based on where they got their milk from, all these things. But they're county averages. And then what happened is that the math was sort of smoothed to make it be nicely from county to county because the original map we published you would get one county and the next one would be a very different color, so it is sort of an averaging-out of the whole situation. But you can go on the NCI web site, for instance, for iodine and get the actual value for any county for any age. This is all available on their web site.

VICE ADMIRAL ZIMBLE: But since it -- since it

involved more than just the fallout plume, it also involves milk consumption, age, gender, date of birth, all those things --

MR. BECK: That's correct. There are actually --

VICE ADMIRAL ZIMBLE: -- it's not going to reflect the --

MR. BECK: You have to -- you also actually have to recognize that there were approximately 90-some different tests from the Nevada Test Site, so if I were to show you the map, for instance, for a single test, it would represent the plume and you would see that -- and these maps are on the NCI test site, so if you look at the maps for an individual test -- for thyroid cancer, for instance, you will see that big variation that'll represent the plume. But when you put all these 90 tests together and you -- they went different directions and different times, and so you get this smoothing-out.

DR. PRESTON: That was why you have to include the information on residents in a particular region because you can calculate -- at the individual level you can calculate an

individual dose based upon how many tests were conducted whilst you were in a particular region of the country. So yeah, these are the -- these are sort of the composite.

DR. LATHROP: But again, my -- my question is actually simpler. This map is the result of models of transport and fade from the test. It's not a matter of --

MR. BECK: No.

DR. LATHROP: -- (unintelligible)

MR. BECK: No, it's based on measurements, a limited number of measurements and sophisticated interpolation schemes --

DR. LATHROP: Okay.

MR. BECK: -- but it is based on measurements of the -- it's ba-- well, I should be careful. I mean you cannot calculate internal doses. You can measure internal doses directly. What you can measure are -- is the fallout from various tests. You can then interpolate these -- the fallout over space and time and things like that, and then you use the models to calculate what the dose to the thyroid was. So you do have models involved here in terms of you can measure population, how much they drank

and things like that. But the dose to the thyroid is based on a model.

DR. LATHROP: Okay. Okay.

DR. PRESTON: I mean there were collec-- there were various collecting stations, isn't that -- I don't know what you call them, Harold -- around the country.

DR. LATHROP: All right, so now comes my next point. Were other atmospheric tests being conducted by certain other countries during the same time?

DR. PRESTON: And Harold can answer that, but I can give you the -- yes, they were, but that's also built into the calculation I think of doses from the Nev-- from the U.S. tests.

DR. LATHROP: And so here's my point: Are we talking about compensation including compensation for exposure to tests conducted by certain --

DR. PRESTON: No.

DR. LATHROP: -- other countries, to remain nameless?

DR. PRESTON: Not -- not in -- not in this case. We recommended that the exposures or doses be from the tests conducted by the U.S.,

largely from the Nevada Test Site. But we did include some -- for example, Guam put in a particular petition and we did include a discussion on incorporating Guam into the compensation area because they were subject to fallout from nuclear tests not from the Nevada Test Site. That was all discussed in the report and went through the -- you know, I didn't get into that level of detail, but you can -- you can calculate the dose from specific and only from U.S. tests, and that's what we recommended the compensation be for. And Harold can answer that.

MR. BECK: Just -- the feasibility study that you mentioned that was the basis for their drawing these maps, there was fallout from the Nevada Test Site, and that impacted certain parts of the country, particularly the a little bit more usually, on average. But then there was fallout from the tests conducted in the Pacific, both by the United States and the other powers. And this also resulted in considerable fallout from different types of nuclides, generally, and this was also calculated as part of the feasibility study and

maps are given for that, too. And there iodine is of less importance because of the delay. So here you have some other nuclides generally being possibly more important, the long-lived ones that came from these tests. That is included in this study. As Dr. Preston said, these were very low doses, but the whole -- you know, he mentioned about the -- you know, people who might have been exposed to fallout. Everybody in the world was exposed to U.S. and Russian fallout, particularly the northern hemisphere, but even in the southern hemisphere. So everybody had some fallout exposure.

VICE ADMIRAL ZIMBLE: Thank you very much. We are beyond our scheduled break time, and let me just ask one question. If there are any questions or discussions that are to be directed to Dr. Preston, let's ask that. But then if we have any further discussion, let's save that till after the break. Okay.

COLONEL TAYLOR: My question is directed at Dr. Preston and it refers back to the MCI (sic) 1997 ionizing study 131. Why milk consumption, and was it the only special criteria of that

type?

DR. PRESTON: Yes --

COLONEL TAYLOR: You referred to milk consumption in -- in --

DR. PRESTON: Absolutely. The milk consumption is very important in determining the dose or the exposure from iodine-131 and some other radionuclides. And I guess it's -- again, it's from the fallout through the -- and Harold, you know, I'm -- I'm looking at Harold 'cause he's such an expert and I'm always embarrassed to talk about these things in front of Harold. But it's to do with the fallout and the back yard -- it's to do with the back yard goat syndrome. If you have a goat in the back yard in an area where there's some fallout, then the goat -- the radioactivity will get into the milk, and then the individual drinks the milk and that's how it gets in -- that's why the milk is such a significant component, and now you --

COLONEL TAYLOR: Is it --

DR. PRESTON: -- can answer that, Harold.

COLONEL TAYLOR: Is it -- you can let him answer it, but --

DR. PRESTON: Yeah.

COLONEL TAYLOR: -- is it more that it is an important, easy to identify indicator? Is that one of the reasons it's on there?

DR. PRESTON: It's very important, I think, in the determination of dose.

MR. BECK: What it is is that – iodine-131 concentrates in the thyroid, and the way it gets into the thyroid from the fallout, the fallout gets deposited on the ground -- on the grass. Unless iodine actually gets into your body, it's not much of a hazard.

COLONEL TAYLOR: Yeah.

MR. BECK: But the way it most -- important way it gets into your body is that cows eat the grass that the iodine is on and -- cows and other animals --

COLONEL TAYLOR: And then we (unintelligible).

MR. BECK: -- and the iodine concentrates in the milk of the cows and you drink the milk. And that -- that's how it gets into your body. And so you get a radiation dose because it gets into your body. If you didn't drink milk at all, you would get a very low dose even though there may have been a lot of iodine deposited

in your back yard. If you had a back yard cow, then you're going to drink the milk from that back yard cow and -- without much delay, and so you'll get a higher dose. If you had a back yard goat, goats concentrate even more iodine in their milk, so that's why it's important. It really has to do with -- you know, when you have radiation exposure, you either get exposed from -- externally, from it being on the ground if it has high enough energy radiation, or you get exposed internally because the radionuclides somehow get into your body -- through what you eat, through what you drink or through breathing. And these are the various pathways that we consider in this dose reconstruction here, as well. Iodine -- each radionuclide can get into your body in different ways, but this cow/milk ingestion pathway, thyroid pathway, is the most efficient and most important for this particular radionuclide, so that's why it's important.

COLONEL TAYLOR: One of my reasons for asking was that I was exposed fairly significantly at Desert Rock, and yet I am a person who hates milk and have never really drunk it during my

life when I could avoid it. That's why the question came up is to -- would there be a difference and so forth and it becomes interesting. Thank you.

VICE ADMIRAL ZIMBLE: You probably didn't graze, either, in the grass.

COLONEL TAYLOR: That's right, if I ate grass or drank beer or something else, maybe that'll do it. I don't know.

MR. BECK: There also weren't too many cows there.

COLONEL TAYLOR: Yeah, right.

VICE ADMIRAL ZIMBLE: Dr. Zeman, this'll have to be the last question.

DR. ZEMAN: Yes, at the risk of running into our break, I'd like to ask Dr. Preston a question.

First of all, Dr. Preston, I really enjoyed and was illuminated by your talk, and also by the NAS report which I found extremely readable and basically a textbook on radiation dosimetry, radioepidemiology -- very interesting reading. And for those who haven't read that report, I recommend they take it with them on their flight home and settle down and spend a couple

or three hours reading it 'cause it's well worth it.

DR. PRESTON: Thanks.

DR. ZEMAN: One thing I would like to clarify, and that is the numbers on the graphs that were just up on the slide there show doses -- dose numbers as high as 150 and 200, and I would like to clarify that those are doses in milligrey, not --

DR. PRESTON: Yes, correct.

DR. ZEMAN: -- not doses in rem. And --

DR. PRESTON: Yeah.

DR. ZEMAN: -- for all of the gray-haired people here on this committee, we're used to thinking in numbers of rem. And 200 milligrey, if I did my conversion right, is actually 20 millirem -- I'm sorry, 20 rem. So the doses are in fact up to about and a little over 20 rem that you were showing, not -- not hundreds. So I wanted to clarify that.

Let me get to my question. My question is this. I'm on the subcommittee that's looking at dose reconstruction, and two of the principles that are followed in the dose reconstruction for the veterans -- one

important principle is the benefit of the doubt with regard to developing the scenario of where the person was and how they participated. And the other is the idea of the upper bound dose that takes into account all the various uncertainties regarding the participation, regarding the dosimetry data, regarding the exposure data. So you -- in the RECA program you also face these same questions, how to take into account a person's own statements of what they did, how much milk they drank, where they lived, and also how to take into account all the uncertainties and establish some kind of upper bound dose.

So what I wanted to ask is your advice, really, or your -- your opinion on how we view those things, how we judge those things and how we should assess those things when we're auditing individual dose reconstruction records.

DR. PRESTON: Yeah, I mean there are some things that are documentable or available for -- to be documented. I mean the components which are the most significant would be, you know, residence during a particular period of time. And those -- in the RECA program those

require documentation and -- for which there are other -- other difficulties, but they are over-- they can be overcome. But -- so those -- so residence is fairly straightforward, year of birth is straightforward. Those all influence.

Things like milk consumption, which is -- which would cause some variation, I think that's just something that there's -- you -- it could not be documented and you just have to rely upon some sort of average value for -- and if somebody is enormous-- their declaration is enormously outside, you would perhaps make some inquiry. But I don't think there are many items that would fall into the not-documentable that would really impact.

Now the uncertainty is taken into account in doses and in risk estimates and so on simply by the credibility intervals or the confidence intervals that you allow for compensation around a PC value of, as we talked about today, 0.5 although, as I said, we did not recommend that value. That takes into account a lot of the uncertainty.

So is that getting to the point that you...

DR. ZEMAN: Partially, yes, the -- but the uncertainty in the PC estimation is based on the uncertainty in the radioepidemiology. And what we need also is to establish the uncertainty in the radiation dose reconstruction. What is the upper bound, what is the uncertainty in the dose. So that -- that estimate of uncertainty also must go into the --

DR. PRESTON: It goes in, but that does go into the calculation of the PC. There's a -- as Dr. Land, who's now disappeared on us -- you add up the uncertainties, the uncertainties based upon dose and the uncertainties based upon risk, and then you calculate an overall uncertainty which is then built into that distribution of a PC. So the PC is -- utilizes dosimetric information and risk estimation, and so that part of the -- that part of the uncertainty is incorporated into the calculator. And that's why the distributions -- if you see the distributions of PC can be very broad. As I pointed out, the magnitude of the distribution is in part determined by the level of uncertainty, and then also affects the compensation. Or the

potential for eligibility for compensation, I should clarify.

VICE ADMIRAL ZIMBLE: Dr. Preston, thank you so much. We appreciate your dissertation and your -- you've edified members of the Board and I thank you.

DR. PRESTON: Thank you.

VICE ADMIRAL ZIMBLE: Now I'm going to address the Board. We're past the scheduled break. We also have nothing scheduled until -- now until 1:30 on the agenda, so do we have any further discussion that we might want to resume after the break, or shall we take a long lunch? Yes, Mr. Pamperin.

MR. PAMPERIN: Thank you, Admiral Zimble. I just wanted to verify -- I e-mailed Dr. Neil Otchin, who is the VA doctor who does our reconstructed dose estimates, and he has verified for me that we do use the NIOSH version of IREP, so that the most beneficial benefit of the doubt regarding basal cell and -- myeloma are -- is used.

VICE ADMIRAL ZIMBLE: Thank you very much for that. And now Dr. Vaughan, have you been able to catch all the conversation that's been going

on?

DR. VAUGHAN: Yes, I have, and I have a point of discussion but it can wait until after lunch, if --

VICE ADMIRAL ZIMBLE: Okay.

DR. VAUGHAN: -- there'll be an opportunity for that.

VICE ADMIRAL ZIMBLE: Okay, yes, there'll -- oh, there'll be plenty of opportunity to -- for discussion --

DR. VAUGHAN: Okay.

VICE ADMIRAL ZIMBLE: -- this afternoon. So why don't we resume here at 1:30.

DR. VAUGHAN: Okay.

VICE ADMIRAL ZIMBLE: Thank you.

DR. VAUGHAN: Thanks.

(Whereupon, a recess was taken from 11:20 a.m. to 1:30 p.m.)

PUBLIC COMMENT SESSION

VICE ADMIRAL ZIMBLE: Ladies and gentlemen, it is now 1:30 and I'd like to resume the Board meeting. I'm gratified to see that we've got a reasonable return after a long break, and I -- we're going to -- we're going to reserve the

next two hours for public comment. This is a very important aspect of the business of the VBDR. Nothing is more important than good, solid communications between the veterans and both the Veterans Administration and the NTPR. And this Board, looking for ways to enhance that communication and that outreach and trying to arrive at some mutual understanding, also invite comment so that we can participate and help the process of enhancing communication. And I'll tell you that when I use the term "communication" it doesn't just mean speaking from Board to veterans. It means a Board that's ready and willing to listen to what -- what you have to say. We need to know what your concerns are. We need to be able to see how those concerns fit into the jobs that we're doing, and so this next two hours, to me, is probably the most important two hours of the business of the VBDR.

I'm going to ask for presenters in the order in which they've been registered on this piece of paper, so I'm going to ask first for Carlos Contreras to say a few words. Carlos, the floor is yours, Mr. Contreras.

COLONEL TAYLOR: How do you spell the last name?

VICE ADMIRAL ZIMBLE: C--

MR. CONTRERAS: C-o-n--

VICE ADMIRAL ZIMBLE: Go ahead. I'll let you spell it. You've been more familiar with it.

MR. CONTRERAS: -- t, as in Tom, r-e-r-a-s, Carlos R.

COLONEL TAYLOR: Thank you.

MR. CONTRERAS: Thank you. Thank you -- I want to thank the Board for letting me speak and for conducting this Board meeting on dose reconstruction for us veterans, and we thank you.

I want to -- I want to read a letter here that I have on my atomic veterans concerns and opinions to the Veterans Advisory Board on Dose Reconstruction committee hearings. The VA throughout the United States does not comply with the VA handbook 1301.1. That is a determination on dose reconstruction when a veteran goes to apply at the eligibility department so he can start his process.

On the guidelines of the Ionizing Radiation Registry program the procedures are not as

required by Public Law 99576, Veterans Benefits Improvement in Health Care Authorization Act of 1986. For example, the southern Arizona VA health care systems in Tucson, the register coordinator, who is the person you first register with for the ionizing radiation agent orange, Gulf War, works in the eligibility office as an eligibility agent first, and the IR Register coordinator second. So the Register coordinator is always behind in his duties and six weeks behind on his outgoing letters to the Veterans Administration and the Austin Automatic Center, whose letters should be delivered or mailed to the veteran within two weeks of the doctors' concerns to let them know his diseases connected to radiation exposure.

The VA re-- the required VA form 101079, emergency medical identification circle of radiation, when you get your records, that form should be in there and the coordinator's supposed to mark that you're radiation exposed. That is not complied. Supposed to be marked radiation -- and it's very seldom used, if any. So some -- the majority of the medical records

do not have that attachment. Those attachments are for POWs or anything that you have that could be of a serious nature.

Number two, the care provider knows very little or any -- I'm sorry, I will rephrase that. The care provider knows little or nothing at all of radiation diseases, or about the ionizing radiation program procedures. That's the person that you're -- go to see when you're sick and he's your care provider, and he doesn't have any answers for you.

Three, the medical doctors are not about to give a veteran a letter stating that a said disease could be related to ionizing radiation for fear of losing their job. They will make a verbal statement. That is as far as it goes.

Four, my opinion -- in my opinion, the VA and the DTRA will continue to do -- will continue on the same course until we die off. The VBDR is another stalling tactic. My last hearing was 2004 on -- on my diseases. In other words, on my claim. No word of my claim for cancer of the urinary tract, urethra, cancer of prostate, urinary bladder cancer, prostate -- posterior subcatar-- subcapular (sic) cataracts, which is

common with radiation veterans exposed.
Five, it has been an up-hill battle for -- with the VA and the DTRA for us veterans to get service-connected disability compensation from the VA. A lot of us have died trying and a lot of us have given up and others given up hope.
Now also on your Public Law 98542, this public law was initiated in October 24th, 1984. For us veterans that were exposed to ionizing radiation and also on these atomic nuclear testing and maneuvers, we could not say anything. If we got sick we could not go to the VA doctor or anybody because we didn't have a clearance. It was all top secret. You can't talk to anybody about it. And this is the clearance that was sent out and it's dated February the 13th, 1995. So how were we supposed to address our concerns?
So as you can see -- okay, the Board can see that we have a lot of concerns about ourselves. We buried a lot of friends, a lot of colleagues. A lot of our shipmates have gone and we're in a catch-22 now because we don't know where to go.
And as far as dose reconstruction, how can you

reconstruct the atom? Once you explode it, that's it. So there's been up to 15 megatons all the way from one kiloton to 15 megatons. I haven't seen a report, but they say that some of them -- there's one that's 50 megatons, so -- and you cannot compare a person that's 50 miles away and the cloud goes over that area from a person that's three miles or two miles away in a government maneuver.

I was in Operation WIGWAM off of San Diego, 450 miles southwest of San Diego, 30 kilotons. And on that operation we were the LST that was holding the strain on the barge so it won't dogtail. At the time of the countdown we let go of the wire which was holding the barge. We overran the wire and we got caught about two and a half miles from ground zero at the time of H hour. Now DTRA -- and here's a picture of that where the bar-- where the LST is -- I'll give it to you after a while. Anyway, then I have a map provided by the people in charge of Operation WIGWAM, and I have the LST 975 way up on the other side, and I know that we were only two and a half miles. So it -- you know, it -- really, I wonder that -- that there's just a

few of us left. By this time I think we should all have been gone.

I thank the Board and I appreciate, and I don't want to, you know, come down hard or anything else like that, but it's -- it's a very con-- a very touchy situation with us, and we lost faith with DTRA, with the VA. We don't have any faith anymore.

As you can see, you have a very -- very, very little show-up -- people are showing up. They think well, what the hell, why should we go? It's the same old thing.

I thank you.

VICE ADMIRAL ZIMBLE: Okay. Thank you very much, Mr. Contreras. Before you leave, let me first -- Mr. Contreras, before you leave, let me first reassure you that this Board is -- has not been put up to -- as a -- as a -- a blocking mechanism, that we will be providing -- - and -- and our testimonies are -- our meetings are all open forums and we will be making -- ultimately be making recommendations to both agencies on how they can improve the process. Your testimony is very helpful in our understanding what the problems are in the

process. So your being here is very, very important and I would appreciate your mentioning to your colleagues that we really invite this public comment. It's important. Does the Board have any comments or questions that you'd like to make? Wait -- wait -- Mr. Pamperin?

MR. PAMPERIN: Yes, thank you, Mr. Contreras. I just have a couple of questions. On your very first issue with Southern Arizona -- Tucson Outpatient Clinic, I guess it is -- I'm not quite sure I understand what you mean. Are you saying the -- the six-week issue, is this --

MR. CONTRERAS: Sir?

MR. PAMPERIN: I'm sorry.

VICE ADMIRAL ZIMBLE: He's asking you a question, Mr. --

MR. PAMPERIN: Yes.

VICE ADMIRAL ZIMBLE: Stay at that microphone.

MR. PAMPERIN: I'm trying to understand your -- your first issue with the Tucson Clinic. And you make a reference to two weeks and six weeks. Did -- are you talking about the -- an elapsed time from the time of an examination to

a letter to you?

MR. CONTRERAS: Well, sir, according to the IR -- ionizing radiation program that the VA has put out, you contact the coordinator, the coordinator will set a time of where -- when you see the doctor. A date, in other words. Let's say, for instance, they'll give you two weeks. It's supposed to be within two weeks after you contact that coordinator. And it gives you two weeks. Sometimes they run three, you know, but the thing is if you're going to run six weeks for an appointment, that's too much. But within two weeks is supposed to have an appointment with a medical doctor. Two weeks after your examination, which requires urine, blood, chest X-rays, and at the same time, that same date you see the doctor, you tell him your concerns, your diseases. And after that, two weeks he's supposed to give you a letter, send you a letter by mail stating your concerns and his findings that he will recommend to the VA. In other words, send it to the Secretary of Health. And that is not followed properly.

And it's not only the Tucson VA, but it's

throughout the country. Some of these VA CEOs on the regional hospitals do not comply because it takes money away from the budget. And they have a coordinator working for eligibility and he's the coordinator for agent orange, this and that -- agent orange, radiation, every-- he can't do all that. He has to just stay with that program.

MR. PAMPERIN: Okay, I am -- I understand and, you know, I'll bring that back. Regarding the -- those labels on your charts, too, I'm aware that that's an ongoing issue.

I would -- I -- do you live in Arizona or in -- or in California?

MR. CONTRERAS: No, I live in Arizona.

MR. PAMPERIN: Could I see you a little bit after this and --

MR. CONTRERAS: Yes, sir.

MR. PAMPERIN: -- we'll find out what's going on with (unintelligible).

MR. CONTRERAS: Yes, I -- I -- I've been active with the Atomic Veterans for the past seven years -- six year, seven years. Anyway, and I've also been active with the Disabled American Veterans as a service officer.

MR. PAMPERIN: If you -- perhaps if you could speak with Mr. Jim Schultz over in the front row, he's from the Los Angeles Regional Office and we can get the specifics of your claim and we can get back to you on --

MR. CONTRERAS: Yes, sir.

MR. PAMPERIN: -- (unintelligible) that is.

VICE ADMIRAL ZIMBLE: And Mr. Contreras, you had mentioned a diagnosis. I don't necessarily want to repeat that, but it's my understanding that some of the (unintelligible) --

MR. CONTRERAS: (Unintelligible)

VICE ADMIRAL ZIMBLE: -- that you mentioned are presumptive --

MR. PAMPERIN: Right.

VICE ADMIRAL ZIMBLE: -- diagnoses that don't require dose reconstruction.

MR. PAMPERIN: Absolutely, no.

MR. CONTRERAS: Sir?

VICE ADMIRAL ZIMBLE: Some of those things that you mentioned are -- are conditions that do not require dose reconstruction, and so by all means talk to the veterans representatives here and we'll see if we can resolve some of that.

MR. CONTRERAS: Another thing that -- that you

just reminded me of, in the Federal Code of Regulations, you know, some of us veterans that were exposed do not require a dose reconstruction.

VICE ADMIRAL ZIMBLE: Right.

MR. PAMPERIN: Right.

MR. CONTRERAS: You know, and -- and --

VICE ADMIRAL ZIMBLE: Okay. Colonel Taylor.

COLONEL TAYLOR: Mr. Contreras, may I call you Carlos? It's --

MR. CONTRERAS: Yes, sir.

COLONEL TAYLOR: -- easier. You've done a good job of presenting and providing us information on both the registration procedures for dose registration and for some on Operation WIGWAM. That occurred in I think 1955, and in that 50 years since then where have you lived other than in Arizona?

MR. CONTRERAS: I lived for five years in Los Angeles --

COLONEL TAYLOR: Okay.

MR. CONTRERAS: -- Glendale, Arizona -- I mean Glendale, California, I'm sorry.

COLONEL TAYLOR: Okay. You lived in this immediate area pretty well --

MR. CONTRERAS: Yes, sir.
COLONEL TAYLOR: -- consistently. What I'm asking you to do is you've done a good job of presenting what the procedures are and what the ionizing radiation event was. What I suggest to you is collect as much data as you can of the last 50 years of your personal actions to get disability or whatever you need to get, then turn to a veterans service officer that you're comfortable with -- may be the man here from L.A., may be a person in Arizona for you -- but turn to somebody and show them what you have done to try to collect this information and get this done. We can't do it here because we really can't deal with an --
MR. CONTRERAS: Well, I --
COLONEL TAYLOR: -- individual case, but you -- we can refer you to a VSO.
MR. CONTRERAS: I understand, sir, but that's part of my collection that I'm giving you. I am -- I have a big collection --
COLONEL TAYLOR: I'm sure you have a big file of --
MR. CONTRERAS: -- and I've worked with atomic veterans extensively --

COLONEL TAYLOR: In -- in your job.
MR. CONTRERAS: Yes, sir, and as a Arizona State Commander, also, for National Association of Atomic Veterans.
COLONEL TAYLOR: Well, you have experience and not only can help yourself in getting the disability or whatever else you need, but you can also have experience that can show us what needs to be done in being able to communicate to other atomic veterans on how to solve some of their problems --
MR. CONTRERAS: Well --
COLONEL TAYLOR: -- because we have a number of people that come to us that are very frustrated with having achieved very little success, and that's what I'm suggesting to you.
MR. CONTRERAS: Thank you. But let me -- let me -- let me --
COLONEL TAYLOR: Respond.
MR. CONTRERAS: -- response with that. I -- I started a group in Tucson, Arizona and we went up to 14 atomic veterans, and then we moved to Phoenix -- that's when I was representing NAAV and we moved to Phoenix and we had a meeting, a group meeting, luncheons, up to 38 persons that

-- and I met widows and siblings and veterans, and I've seen them die, you know. And I -- I know they're -- it's a problem. So as far as being very well-informed on the situation, I've -- I'm not an expert, but I've studied it.

COLONEL TAYLOR: I'm not concerned with your own individual expertise. I'm concerned with your ability to communicate what you've done to a VA or VSO who can help you resolve the issues.

MR. CONTRERAS: Yes, sir --

COLONEL TAYLOR: That's what I --

MR. CONTRERAS: -- thank you.

COLONEL TAYLOR: That's what I'm aiming at.

MR. CONTRERAS: Yeah, yeah. Back -- back to the issue of contacting -- when a person -- if I live in Arizona, I have to stay with the regional office in Arizona. Any person that's in California has to stay with a regional person in California. Each state handles their own claims. You can --

COLONEL TAYLOR: That can change in the future, but stay with it for the moment.

MR. CONTRERAS: Well, that's also... Is that all?

VICE ADMIRAL ZIMBLE: Okay, thank you --

MR. CONTRERAS: Thank you.

VICE ADMIRAL ZIMBLE: -- thank you very much. Now Mr. Wyant.

UNIDENTIFIED: (Off microphone) (Unintelligible) --

VICE ADMIRAL ZIMBLE: Yes, Mr. Wyant, you betcha.

UNIDENTIFIED: -- (unintelligible)

MR. WYANT: My name is Clyde Wyant. I live in Milwaukee, Oregon. I'm a regular Army -- was regular Army. I was in Kodiak, Alaska when they bombed Pearl Harbor, and then I got involved in the atomic. I'll skip the rest of it, but I was picked out of Washington, D.C. out of 3,500 returning veterans from Europe. Dr. Oppenheimer and his crew were there trying to find some people to help them. Dr. Oppenheimer told me, after I was there, he picked me the second day. I'm only 21 years old. And I said to him -- first of all, this was supposed to be a deal to go to work for the Post Office in the APOs to help get the stuff over to Europe and different places. I knew after a week it was no post office job, but I

didn't know what it was, but I knew it was something. And I kept seeing this same fella all the time.

Anyway, I'll cut off of that and I'll get back down to Los Alamos when I walked in there and I looked and I hooted, I see Dr. Oppenheimer. I didn't know it was Dr. Oppenheimer at the time. I says well, I remember seeing you. I talked to you quite a bit, and he said yes. And he says I'll tell you one thing, I picked you the second day. I says why did you pick me, I'm only 21 years old; what have I got to do -- I don't even know what I'm doing here. He says I thought a farm boy from Iowa couldn't get in too much trouble, so I picked you. And I been under security for 65 years. I've probably got one of the highest ratings in security that you can get from the FBI. The FBI called me in February this year checking on us to see how many of us are still alive out of the 243 he said that worked in my area. And in those days the Army was the only ones there and so I presume some of them were probably the MPs. But anyway, besides the point. He was checking to see if I was still alive. And he asked me a

lot of questions, and I told him about my security -- my award from National Atomic Group thanking me for my service, and I had a copy of a letter from Bob Oppenheimer, who was my boss. He said I know that, I have it. I says why are you asking me these questions? He says I'm having a hard time believing that you are still alive. I said well, what do you mean? He says well, I been working on this list for two and a half months. I haven't talked to a veteran, a family, a brother, sister or even children that even know anything about it. And he says my name being Wyant, it's the last on the list 'cause I knew there was no Zs. And he says if you got all that stuff and I was reading what you have here now, you are the sole survivor of those from Los Alamos from '40 to '45.

You want to go on a little bit more? Get into the meat?

In 1945 I was in Los Alamos when we tested on June 25. We tested in Los Alamos and it was called TRINITY site. Also in those days we were known as Manhattan District Engineers of Tennessee, because that was our cover. We were not known as atomic. Anyway, the explosion

went off, and after it was off, why the troops went out to look to see and one thing I can tell you because they'll let me talk about it, there was an old locomotive built in 1850 or thereabouts, had a big smokestack on it, it was a coal-burner. You know, those had a lot of iron in them. Well, they put that on a rail track and ran her up to where they said they were going to drop the bomb, and behind it was seven prisoner boxcars. Those are what the military hauled prisoners of war in. And they said they were going to drop it in front of it. Now I was not out on the testing ground. This is what I got from people I was able to talk to. They dropped the bomb from a 900-foot tower, and just two weeks ago out in Portland at the VA a man seen my atomic and he wanted to know what and when and I told him. He says well, I was there on the testing ground. He says I'm the one that put the equipment out there to detonate that bomb. We made it in our place. And I thanked him, and he said well, you did a hell of a job.

Anyway, they dropped that bomb from a 900-foot tower. That's why it was able to land in front

of that locomotive. It did. And after it was all over with and they were able to go back and see what happened, there was nothing left of the locomotive except a small handful of metal. The boxcars, the railings -- gone. The tower -- gone. And what was in front of it, where it was, was a pit estimated to be between 1,200 and 1,500 feet deep, three-quarters of a mile or a little better across, two and a half miles long, and it was all covered with five inches of glass, top to stern. Does anybody know why? Well, I'll tell you why because some of you don't.

Heat makes glass, and that glass is still there to this day. I'm going to get a chance to go see it. I'm supposed to be on the road next month, but I don't have -- I got some medical problems that have to be taken care of first, but I'm going to go see it. But that's the story on that part.

Now what I want to talk about is -- I'm not going to talk about those fellas out in the Pacific which the federal regulation shows that they are the only atomic veterans. They are the only atomic veterans according to your

federal regulation. That's what you say 50 to 70 are atomic veterans. I have it right here. Also, I have said to many conventions and where there are representatives from Washington, attorneys or whatever, and I've told them. The last one was in San Diego. The man apologized to me 'cause I got up again and asked. I thank you for all the things you're doing for the veterans in the atomic out in the Pacific, but I says what about the veterans in the '40s and '45s in Los Alamos, what are you doing for them? He said sir, they're all dead. And I looked at him, put my hand here and I says do I look dead, sir? Well, he says no, you really don't. I said you have any idea how old I am? Oh, he says you're about 70. I said thank you, I'm 84. I'm 85 now.

All my problems -- that's three fusions are all coming apart. I need a neurosurgeon to take care of it 'cause there's they're the only one can, and the chances are if they make one slip, I'll be paralyzed. I have a wrist that's been operated on three times; now it's got a plate in it. I have a right knee that's been replaced. My eyes went blind -- the last 19

years I've been legally blind. I can see a little bit now, but they don't know why. I was in Washington, D.C. and they tried to tell me -- I was trying to find out if they could take care of my surgery but they're booked up pretty tight. They said it'd take them another year or more. I'm having my teeth worked on. They've known for three years that I had to have these teeth done. I've already had them out once by outside. Oh, I'll mention also, all my operations have not been done in the VA hospital because I didn't trust them 'cause I didn't think they had the people so they were done outside, but the good graces of the VA give them the information and they approved it, so I am now -- all my surgeries are qualified as if it was done there.

Now -- I've got so many things I could talk about. The other thing is the radiation (unintelligible) and I told you about the locomotive and that, so I have been trying to -- this information I have been able to tell you today is things that I got from people who were actually there. But I have never, never talked to a person that was in Los Alamos where I was.

Nobody. They've all been out in the Pacific, and they're always asking me when I go -- I'm the Area Commander of Washing-- of Oregon advisor, my title is, and I have a citation says TRINITY site advisor. My commander of Oregon will not talk to me. He did -- just ignores me 'cause he says you're not an atomic veteran. The only atomic veterans are those out in the Pacific. And I said Fred, and I told him at the meeting more than once, I said if it wasn't for us in Los Alamos making the atomic bomb, you wouldn't have been out there. This whole thing wouldn't be talking about now. What I'm talking about now is why the President at 2:01 at Arlington on Veterans' Day -- this is one thing I want to get across -- he gave his speech normally, and afterwards he praised the ten Purple Heart boys that was setting (sic) there, thanked them for their service, that they've been shot up and they're healed or they're fixed, they're able to get around, they're able to do a normal life -- as best as they can, some of them are having a hard time -- but he said I just discovered -- and these are the words -- I just discovered three months

ago that there are a group of veterans who have been (unintelligible) mistreated and neglected and abused, in badly need of medical attention, and that's the atomic veteran with radiation. We do not know what to do for it. We do not know what to do for it. You still remember that now.

So I asked -- it was on TV in the afternoon. My citation was read at the Tomb of the Unknown Soldier by the Secretary of the Blind Association, which I'm also a life member of, and a director. But I had phone calls coming from him all over. Well, we seen you on TV, Clyde, today. I said I don't know how you could, I'm still here in Oregon. Well, it was just on an hour ago. I said I'm still here, ain't I? But anyway, I got writ up -- wroten (sic) up about that. I have copies of that. But the President has not followed through. He said that he was going to see that we got a purple heart. He didn't say me, he said all atomic veterans, and he was going to recommend to Congress that they do it. But I have never seen a word of it. I'm only one in my classification, so I can see where maybe I

could get it, and should. But if there's several hundred thousands out there and there's more that they don't even know about because they figure they've about one-tenth or one-fifteenth of the ones that are eligible to belong to the atomic group that were out in the Pacific, plus the ones that have already died. Now I'm 85 years old. This is -- I was in Tampa. A lot of you remember me. I give a nice speech down there. I kind of enlightened you on some of the things that I think you should be doing. But one thing I said there was I think you need to get rid of dose reconstruction because we out there at this time in the '40, '45, we didn't have any tests, we didn't have any armor, we didn't have any special clothes, we wasn't even told we was involved in anything as dangerous as that. And we had probably a lot of us with the fingers been took off because it was ridiculous. Yet you're wanting me -- I'm dead. To this day -- I was in Walter Reed on the 6th of this -- of June, they told me I'm dead. I said yeah, because the federal regulation says that, but we realize now that you're still alive. We

wish that we could do more about it, but we can't 'cause we're too busy with the war. I have asked my advice nurse who I -- been at my side for nine years helping me through this. She said Clyde, I'll try to get you referred out to go down to Los Angeles where they are supposed to have one or two that specialize in nerve surgery. Not orthopedic, but in nerve, because the only one can do this, somebody that knows something about radiation, and they do. But you know what he wrote back and told me? He says you're working every day and you're driving. I haven't driven a car since '75. I haven't worked since '75. I haven't paid any taxes during that time. I haven't paid any taxes now because all I got is my Social Security and my VA disability. During 2000 I was lucky to get 60 percent. In fact, on my first one I had ten percent. I had ten percent on the second one. They finally raised it to 20 percent, and then when I went blind they raised it to 30 percent. And then while I was in the hospital they raised it to 40, so when I got out it was 60 percent. The F -- the Federal Bureau -- Veterans Affairs called me

two weeks after I got home and asked me -- we have been reviewing your claim and your situation. It goes clear back to '75. I said that's right. Have you worked for anybody during that time? I says no. Well, who did you work for; we can get a hold of them. I says the company that I work with was a bunch of -- five of us, all World War II. They're all gone. We haven't had a company for over 20 years. I'm the sole survivor.

I'll be off short enough.

VICE ADMIRAL ZIMBLE: No, no, I just wanted to remind you, Mr. Wyant, that with that service connection, you are eligible for care at any VA hospital.

MR. WYANT: Oh, I can get the care.

VICE ADMIRAL ZIMBLE: Yes.

MR. WYANT: But they can't give me the care that I need because there's nobody in that hospital that knows anything about radiation. I heard one buddy over here say well, they're doctors -- you got all these leukemias, 26 of them -- I mean cancers. That's a bunch of hooey, because I -- if I never was near radiation you could have every one of those

cancers without being involved. You can get it every day. Everybody could have it. Yet you're saying because we were atomic veterans, that is -- is the cause of our problem with those cancers. They finally come on with bone, so I'm saying I have bone, but nobody will say so. Nobody will acknowledge it. There is no doctors that I have been to in the VA that will say so, and yet you've got -- saying here on this Board your doctors out there can tell you whether you have or have not. You know very well they can't because you don't know, so how would they know.

And I think right now -- and I'm telling him 'cause I'm a little tired and I'm 85 and I don't know longer I'm going to be around, but I hope I get my Purple Heart and I hope I get recognition and the money for my radiation problems. And I hope I get my surgeries -- for me. But in the meantime, if I get those, it'll help those other veterans out there who are trying -- die hard and he's trying to -- their claims are turned (unintelligible). I understood since Tampa there was 1,250 of the claims that were denied of 4,500, and they were

asked afterwards how many did they approve? None. Why? Dose reconstruction. So you see, that's what's -- I told you in Tampa, I'm going to tell you now, I told the federal officers that come to these conventions, I told them more than once what the problem is. R.J. Ritter and our commander (unintelligible) have wrote to you and told you the same thing and we said -- this is R.J.'s last words (unintelligible). He says we think we're deserving of a Purple Heart because we didn't get shot up or wounded, but mentally and physically it's worse than being shot because they are being healed and fixed up and are working and we are struggling. And I'm going to say again, I'm glad to be here. I'm glad to have the opportunity to talk to you again, and I'll probably be around. But what I would like to have done as a NAAV and R.J. has -- we have talked about and agree, we would like to see, going out to every state using me as the guinea pig for TV and advertising to find these atomic veterans that are out there in the Pacific because I know that's only me, but it would be a drawing card because everybody I talked to in

the last five years, what is atomic. And when I tell them he says well, how come we don't know anything about it? I said don't ask me, ask you. I'm going to ask you again today, why does not the American people know what atomic is about and what the problem is and why you can't do something for us? And you've already admitted today that you're not doing that. I'm going to tell you right now, get rid of dose construction, get some money in the deal, go out and campaign to get on the national TV talk shows, whatever, in every state. Take me and a few others, get the other veterans in that area to be -- join the committee and have a public forum and tell the people in that state what it is all about so that when we come up on the radio or in the newspaper they'll know what we're talking about. These people don't know a damned thing what we're talking about. I'm sorry to say that, but I hope before I die -- and I've already told my doctor I'm going to live another 15, so you know where that puts me -- but I want to see that job done, that we go out throughout the United States, Puerto Rico, Hawaii -- my good buddy

over in Hawaii is -- breaking his heart -- and get this message out to the people of the United States, telling them what went on in World War II and we have this group of veterans that we are not doing one thing for because we do not know what to do for them. And all you people with all these scientific deals, schools and all that, that's great. But what are you doing to solve the problem that I have when you don't know what it is? And as I told you in Tampa, you need to go and talk to the veterans -- different organizations, the blind, purple heart, all of them and -- besides the radiation of -- NAAV, which we have a pretty good record, and we've only got a small percentage that we know that are out there, and we'd like to get those in.

VICE ADMIRAL ZIMBLE: Mr. Wyant, I would --

MR. WYANT: Yes --

VICE ADMIRAL ZIMBLE: -- tell you --

MR. WYANT: -- yes, you want to cut me off.

VICE ADMIRAL ZIMBLE: -- thank you. Clyde --

MR. WYANT: Yes.

VICE ADMIRAL ZIMBLE: -- all your remarks have been recorded verbatim and we'll make sure that

it's part of the record --

MR. WYANT: Okay, and --

VICE ADMIRAL ZIMBLE: -- and we'll consider your comments.

MR. WYANT: -- as I said before, I got a copy of the ones we had in Tampa a month ago. I'd like to have a copy of this one. And since I'm blind, I do not have a computer. I do not have e-mail and I need the hard copies and so my nephew is my --

VICE ADMIRAL ZIMBLE: We'll make sure you get a hard copy.

MR. WYANT: -- called that number, he's -- it's in Florida, but we haven't got it yet, and I'm looking forward to that. I've read every inch of NAAV for your information. If it's in hard copy, I'm getting a unit -- it's like a printer, you put the printed copy in, turn it on and turn the knob and it reads it.

VICE ADMIRAL ZIMBLE: Okay.

MR. WYANT: You can back it up, run it forward, I can read it any time and then I can file them, and I'm trying to get e-mail that talks.

VICE ADMIRAL ZIMBLE: Okay.

MR. WYANT: Now it's out there, but nobody's

trying to help me to get it. I got to have a computer they say. There's no use to have a computer when I can't use it, but it does have a phone. But when I talk to the people that have it, and it's in their advertising that they have the phone, then they say well, we don't.

VICE ADMIRAL ZIMBLE: Well --

MR. WYANT: But I know --

VICE ADMIRAL ZIMBLE: -- we'll send you --

MR. WYANT: -- (unintelligible) that there is e-mail that talks. They're in veterans office, they're in banks, they're in businesses and everywhere else. The VA has it. Why can't I not find out where they are? In Portland I had to buy my own electric wheels to get to the point in the Post Office, which is over two miles away; I can't walk it. I paid for that, and now I'm paying for this machine, another $2,500. The other one cost me $3,400. I've had to pay for everything I've got. The only thing I got free was when I was in the blind school in Tacoma, I did get an $8,000 CCTV and a lamp that cost $500, a adding machine or talking this and talking -- I come home --

around $10,000. That's the most I ever got but I got that for going to school.

VICE ADMIRAL ZIMBLE: Okay.

MR. WYANT: But I haven't got anything since. I paid my way here. I paid everything here. I'm not being paid, and I want you to also know that there is not one officer in NAAV that draws a salary or is paid. It's all volunteer.

VICE ADMIRAL ZIMBLE: Right, we have a volunteer member on the Board.

MR. WYANT: Yes, R.J. is here.

VICE ADMIRAL ZIMBLE: Okay.

MR. WYANT: And he's backing me. Thank you.

VICE ADMIRAL ZIMBLE: Thank you.

MR. WYANT: And if anybody wants to talk to me -- oh, I'll tell you another thing. I'm on a program of ten years that started in Milwaukee High School talking on Veterans' Day to -- to people and students, and I been doing it for ten years and I'm in --

VICE ADMIRAL ZIMBLE: Okay.

MR. WYANT: -- five schools now --

VICE ADMIRAL ZIMBLE: Okay, thank --

MR. WYANT: -- in Oregon.

VICE ADMIRAL ZIMBLE: -- thank you, Mr. Wyant.

We need to hear from some of the other folks. Okay?

Mr. Welch.

MR. WELCH: Good afternoon. My name is Dale G. Welch. I live in Tucson, Arizona and I'm grateful for the opportunity I have to speak to the Board this day. I am an atomic veteran. I served in the United States Navy from 1952 to 1956 aboard a Navy destroyer, and I was exposed to low ionized radiation in Operation WIGWAM, which was a underwater detonation that took place off the coast of San Diego in -- on 14th of May, 1955.

I was exposed during this -- our -- our ship's responsibility was observation and plane guard detail and we were approximately seven miles from the detonation point. And we received a lot of radiation from deep water, surface water and aerial particles during that test. I never had a dosimetry badge. I didn't have any protective goggles, as neither did any of the shipmates I was in the close proximity to, or protective clothing during this test.

After I got out of the service, about 20 years later I began experiencing serious stomach

problems. And I went -- on one occasion I went into the hospital with severe internal bleeding. They repaired my stomach and ulcers, bleeding ulcers at that time. That was in 1979. In 1982 I went back in again in an emergency situation with the same problems, and I had a partial -- almost total removal of my stomach and upper duodenal intestine at that time.

A short time after that I went to the -- and filed a claim at the Veterans Administration, and that claim was denied. And a little while later I happened to be taking a trip to the midwest and I had been in contact with some of my shipmates that was present at that test we were involved in, and in contact with them I found out I was only contacting widows because two of the individuals I tried to contact in the Chicago/Waterloo, Iowa area who were right next to me in the tests and in the same situation had died from cancer of the stomach within three weeks of each other in 1986.

Later I was in contact with three of my other shipmates -- I'm sorry, two of my other shipmates -- no, it was three, I'm sorry -- and

out of those three, the other one just passed away in June from cancer of the esophagus. I have experienced continual stomach problems since that time, along with some other health issues that I won't go into at this time.

But after I filed my claim and it was denied, I began to think can this be a coincidence, me with my serious stomach problems which I've had and still have to this day, with the death of several of my other shipmates who had similar or identical problems that I had. And to my knowledge, two of those individuals filed claims with the VA and they were denied. They -- one of the sisters of the -- one of the individuals informed me that his -- that his widow had finally received some compensation from the DA -- VA in -- which was dependents' indemnity compensation. And to my knowledge, that's the only one that ever received any acknowledgment or compensation for their exposure to low ionized radiation.

I'd just like to say at this time that I know, and I'm sure most of all of us know, that there are very -- a great deal of veterans -- atomic veterans still out there who are suffering, but

have not approached the VA or made any effort at all to approach the VA, and some of -- we have a great deal of veterans now that are not alive today. And I think in the next five to ten years that number's going to increase significantly.

I'd just like to say in a couple -- make another -- couple other comments. I went to the VA facility in Tucson, Arizona and I requested an Ionized Radiation Registry exam, which I received in the middle of 2000, I believe it was. I may be wrong on that date, but I believe it's 2000 or 2001. They were very compliant in giving me the exam, but I was quite upset at the conclusion of the exam when the doctor called me back in his -- in the office and in her opinion, she re-- she told me in no few words that according to her that none of my problems or medical issues were conducive to exposure to low ionized radiation. Upon hearing this comment, I took this back to my state area commander, who happened to be Mr. Contreras here with the National Association of Atomic Veterans at that time, and he took issue with them. And after discussing this with the

doctor, it was decided that her responsibility was only to do the examination and not render opinions.

And on the conclusion of that, then we got a letter back from her stating that she did indeed give me the examination and -- and she didn't relate anything more and just thanked me about registering and taking the exam.

I thank the Board once again for their time. I just wanted to express my opinions at this time and my own experiences in relation to my other shipmates that are now gone and can't speak for themselves.

VICE ADMIRAL ZIMBLE: Okay --

MR. WELCH: And I might mention you'll need to really speak up, I'm pretty --

VICE ADMIRAL ZIMBLE: Okay.

MR. WELCH: -- hearing impaired.

VICE ADMIRAL ZIMBLE: Okay, Mr. Welch. Your -- none of your diagnoses are related to cancer, are they?

MR. WELCH: No, and --

VICE ADMIRAL ZIMBLE: No.

MR. WELCH: -- my own opinion on this is that had I not went in and had my stomach problems

taken care of at the time, by four years later when these other shipmates of mine expired with cancer of the stomach, it's a good possibility that that could have been my fate, too. But no, I was not diagnosed with cancer of the stomach.

VICE ADMIRAL ZIMBLE: Any comments or questions from the Board?

(No responses)

All right, thank you very much, Mr. Welch.

MR. WELCH: Thank you.

VICE ADMIRAL ZIMBLE: And now we'd like to hear from Mr. Conrad.

MR. CONRAD: My name is John Conrad. Mr. Chairman, if I can ask three questions to the panel, it gives a different perspective on dose reconstruction that I heard this morning. One, have there ever -- ever you -- ever -- any one of you witnessed an atomic explosion? Have you ever witnessed a -- shoot -- a H-bomb explosion? Have you ever went in your operations area and your sleeping area and the mess hall area with a Geiger counter?

COLONEL TAYLOR: With a film badge, yes.

MR. CONRAD: Well, not with a film badge, with

a Geiger counter. I was in Operation REDWING. I served five months on Enewetak and Bikini islands -- Atoll. As the sergeant and I went around with a Geiger counter and we laughed at how the Geiger counter would go off the scale, and there was a lot of background radiation, but at several points it went off the scale. So we -- we were ignorant about that radiation and nobody told us anything about it. We all wore film badges, but that's not my -- not my question.

I started a claim --

COLONEL TAYLOR: (Off microphone) (Unintelligible) can I ask a question?

MR. CONRAD: Yes.

COLONEL TAYLOR: Before you go any further --

MR. CONRAD: Yes.

COLONEL TAYLOR: -- you said you monitored with a Geiger counter. Are you telling us that your Geiger counter showed something different from your film badge?

MR. CONRAD: Pardon me? I don't -- I don't hear very well.

COLONEL TAYLOR: You said you monitored with a Geiger counter certain areas -- mess halls,

sleeping areas, places like that. You said you laughed when the Geiger counter went off. Did the Geiger counter indicate the same thing that your film badge indicated?

MR. CONRAD: No, we never got the results of the film badge.

COLONEL TAYLOR: So you only got -- you only had the film badge, but you had no results from its monitoring.

MR. CONRAD: No results from it, and the Geiger counter showed a lot of background radiation, but every once in a while it would go off the deep end or -- so to speak.

COLONEL TAYLOR: Do you remember what kind of readings you were getting?

MR. CONRAD: It was off the scale.

COLONEL TAYLOR: Okay. Thank you.

MR. CONRAD: Okay. I started my claim with VA three or four years ago, and I haven't been notified as to the status of my claim. It was last sent to the DTRA and it -- I have manage -- many pages of forms that were filled out and they asked for the same information over and over and over, the VA and the DTRA. I -- I compiled a book about this thick, it was like

150 pages. Thank you.

VICE ADMIRAL ZIMBLE: You filed a claim for what condition?

MR. CONRAD: Sub -- subcaveolar (sic) cataracts.

VICE ADMIRAL ZIMBLE: Sub -- subcapsular cataracts.

MR. CONRAD: Uh-huh, and my -- I went to the ophthalmologist at the urge -- age 37 and had cited -- had started cataracts, and it's very unusual, so...

VICE ADMIRAL ZIMBLE: Any questions or comments?

DR. SWENSON: Sir, I had a question. You mentioned that you gave the same amount of in-- the same information to both DTRA and VA. Was that -- what specifically, medical or -- can you comment on that?

MR. CONRAD: There -- there are forms that you fill out and send in. The VA service office -- DAV service officer filled those out and they sent the forms back to be filled out again, and to be filled out again, and to be filled out again.

DR. SWENSON: Were they specific to your

exposure? Is that what the ques-- the forms were?

MR. CONRAD: Pardon me?

DR. SWENSON: Were they specific to your radiation exposure, asking questions about that, or are they medical?

MR. CONRAD: Well, it was both, the radiation exposure and the time I served at Enewetak and Bikini, and I don't know...

COLONEL TAYLOR: Admiral Zimble, I have three questions. What -- your name is John Conrad. What is your date of birth, sir?

MR. CONRAD: 9/18/33.

COLONEL TAYLOR: What are your Army serial number -- your military serial number and your Social Security number?

MR. CONRAD: US56--

DR. SWENSON: No, no, no -- not for public comment.

COLONEL TAYLOR: Okay, we can't get that in public comment. I'd like to get it from you 'cause I'd like to follow up.

MR. CONRAD: Okay.

VICE ADMIRAL ZIMBLE: Thank you very much, Mr. Conrad.

Okay, Mr. Pont-- Mr. Pontilla, is it? Wait...
MR. PONTILLAS: (Off microphone) Pontillas.
VICE ADMIRAL ZIMBLE: Pontillas? Thank you.
MR. PONTILLAS: Good afternoon, Board. I'm the proud son of a atomic veteran, and I kind of seen the process that he goes through in trying to get the treatments. I only came here really to -- to be the driver here. And as I'm understanding more, I was trying to -- you know, as he would tell me about a lot of the atomic things had gone on and the elements that the veterans are -- have encountered, you know, as a son, you know, you kind of try and ignore all that. You think aw, that can't be true; that's all movie stuff.
But now I've seen -- I'm seeing this real first-hand. I'm really glad there's a Board that's addressing all the issues. You've got a lot of good experience and brain power. And moving forward I think you guys are the right people to make sure things like this get taken care of and the support for these veterans.
But you know, I want to speak as a dependent -- well, I'm 40 years old, but from my observation there's some things that I'm hoping aren't new

to you and some issues that you guys are looking to address in the future. There's numbers. There's over-emphasis on numbers. I used to be a numbers guy, but I believe there's exceptions that also have to be taken a look at in more detail. You can't -- you have to have an exception-handling process to handle the specific cases of the veterans. Maybe it's not cancer-related. From what I understand, this is more focused on cancer, but there's some other elements and some other debilitating issues that may have been caused by what -- you know, their -- their experience during their service. There could be some more sensitivity, more extreme sensitivity on the part of people, you know, versus taking a look at the big population. You know, we need to make sure that's encountered. So from what I understand here, we're looking at -- we're looking at it. You still have to drill down, come up with a sort of exception-handling process to start dealing with the different issues that are non-cancer-related.

And also as I see -- you know, I don't want to reiterate, but -- too much, but a lot of the

veterans from the '40s through the '70s, a lot of them are aging, and -- and it's kind of like the timeliness of this. I don't know what the priority is and how quickly we -- that your Board is to implement some new changes to the compensation, to the evaluation process and just to bring closure to it. I don't know what the time frame is, but -- but it's clear that this time frame is -- you know, it's -- it's almost the eleventh hour for some folks.

Enough about that.

I have issues about the complete list of diseases, wanted to understand how that list was actually composed. I think, again, there are some other diseases that I have seen with other veterans and dependents which -- including myself, which cannot be diagnosed by medical academia and the civilian medical population. And somehow I think -- you know, after ignoring this for my 40 years, now I'm thinking well, who knows, maybe this is where -- - where it should lie, maybe this is where the evaluation should occur.

And then lastly was a -- getting back to dependents is what -- I wanted to understand,

and maybe you guys are thinking about this, was what is the -- what is happening around -- the research around maybe some genetic transference, you know, to -- to offspring? Is -- is any of that being looked at or are we still early in the stage and trying to understand the full scope of the issues? That's all I have for now, but I do thank you. I mean you've really enlightened some of the things that I've been trying to ignore for quite some time, and looks like it's the right team to make it happen. Thank you.

VICE ADMIRAL ZIMBLE: Before you -- before you leave, is there any -- any specifics regarding your father that you want to bring to the -- to the Board? If you don't want to do it publicly, we understand.

MR. PONTILLAS: No, he's actually going to -- he's going to come up here also.

VICE ADMIRAL ZIMBLE: Oh, all right. Okay.

MR. PONTILLAS: He didn't know I was going to get up here and --

VICE ADMIRAL ZIMBLE: Okay.

MR. PONTILLAS: They wanted us to both come up here but I didn't want to influence what he was

going to say.

VICE ADMIRAL ZIMBLE: Okay, very good. Thank you very much for your remarks.

Mr. (sic) Kocher.

DR. KOCHER: If it please the Board, I would -- I would like to make a few comments tomorrow afternoon. I see you're returning to discussions of probability of causation. If I could have a few minutes at that time, that would please me.

VICE ADMIRAL ZIMBLE: Okay.

DR. KOCHER: Thanks.

VICE ADMIRAL ZIMBLE: We'd be happy to do it. Mr. -- is it Cordoan? Did I pronounce that right?

MR. CORDOVA: Very close to it.

VICE ADMIRAL ZIMBLE: Okay.

MR. CORDOVA: Cordova.

VICE ADMIRAL ZIMBLE: Cordova, okay.

COLONEL TAYLOR: Spell it for us.

MR. CORDOVA: C-o-r-d-o-v-a, Sam. Did you get it?

COLONEL TAYLOR: Got it.

MR. CORDOVA: Thank you very much for the opportunity to be here with you. I thank you

for visiting sunny California. Not very sunny in the last week or so, but thank you for being here and listening to the veterans and dependents.

I was in the Marine Corps in 1951 to 1954. I spent 13 weeks in Korea. Prior to going to Korea I was in a secret unit called the Atomic, Biological and Chemical Warfare Unit. I was 19 years old and I spent eight weeks in a place that I think was Camp Pendleton. But we were driven for three or four hours at night, finally landed at the place, and I think it was still Camp Pendleton.

Now I have been told that there was no such unit in the Marine Corps, that the Marine Corps has never had an Atomic, Biological and Chemical Warfare Unit. Just by coincidence and a mistake that they made, when I got my honorable discharge they put down there that I had been to an atomic, biological and chemical warfare school. I still have it. I have never done anything about it 'cause it was highly secret.

Just about six, seven years ago I go in to the VA. I'm a 70 percent service-connected --

combat-related service-connected disability veteran. I nearly lost my legs in Korea in combat. But I went in there for an examination to my lungs 'cause for 40-some years I haven't been able to breathe properly. I started having problems just a few weeks after I was at that ABC school. And I still remember the burning sensations that we used to go through for the exa-- for the -- for the exams that we took. I was 19 years old. I could hold my breath through most of the obstacle courses and I could see the fumes, I could see things dropping. But then other Marines that were older than I, heavier, couldn't make it through the obstacle course. I could hold my breath. But this one time I couldn't. I would -- I would -- I was running. Finally I was out of breath and I had to take a deep breath and I could feel my lungs burning, and I could smell fresh-mowed hay. To this very day I smell it. Yet the Marine Corps says they never had a unit such as that. Isn't it strange? Isn't it strange?

Some years ago I go in there to examine my lungs and the medical assistant says you're --

the smoking that you've done damaged your lungs tremendously. And I says I didn't -- I haven't smoked since I was in Korea, and I just smoked a few cigarettes. I've never smoked. She says well, in that case, you've been exposed to some severely -- severely affecting chemicals. No, I says. I says the only chemicals were in the Marine Corps. And I didn't -- I didn't tell her 'cause I was still under secret orders. You couldn't -- you just couldn't do it. But later on, I keep thinking. The more I think, I says, you know, I was in that. So I go to my separation papers. I says, you know, maybe I just dreamed it. But sure enough, there it is, ABC school. Yet they say it doesn't exist.

Maybe you. Maybe you can find out the details. Now for years I queried other Marines. They never heard of it. Finally I found one. He says yes, I was at ABC school in Hawaii. Then I met somebody else that was in ABC school someplace else. So it can't be that I am being delusional. They had that unit -- that type of unit 'cause there's at least three of us in the Marine Corps, in separate areas, that went

through the Atomic, Biological and Chemical Warfare Unit.

While I was in Korea I was flying a forward observer mission. And as I alighted from this tail-dragger Piper Cub, I saw this man also alight from this plane. He was one of my instructors here. On SOB*, but he was my instructor here. I rushed up there 'cause I was so happy to see him and he says you don't know me. He also recognized me. You don't know me. You don't -- you haven't seen me. Okay, I haven't seen you.

So I go back to my unit and I told Captain Edmund Valdez, he was my S-3 battalion officer, I says Cap, I says you know, what are we doing here? What are we dropping? 'Cause we were firing 155 howitzer 90-pounders. I says are we dropping honey on the gooks? That's what we used to call the enemy. He says if you mention that one more time to anyone, I'm going to send you to the front lines and you're never coming back.

Being the smart young boy that my mother raised, I never mentioned it again.

The point is, some of us were exposed to

something in the Marine Corps. I think -- I would hope that you would help us.

Now here's another problem. I went for an ionization test at my VA in Sepulveda. A young lady, very nice, says you don't qualify for the test 'cause you're not in the right classification. And that's where we stand now. Maybe you can change that. In other words, I was not in any atomic test, hydrogen test, nothing. But I know I was exposed to atomic, biological and chemical warfare elements.

Thank you very much.

VICE ADMIRAL ZIMBLE: Thank you, Mr. Cordova. You need to understand that we're -- we're basically chartered to look at ionizing radiation specifically, and you don't have any -- any recollection of exposure to ionizing radiation, which would -- which basically would require a detonation or working with radioactive materials.

MR. CORDOVA: Well, of course, we don't know.

VICE ADMIRAL ZIMBLE: Okay.

MR. CORDOVA: In other words, we didn't -- we weren't told what we were being exposed to --

VICE ADMIRAL ZIMBLE: Okay.

MR. CORDOVA: -- at all.

VICE ADMIRAL ZIMBLE: Okay. And you had the exam for -- oh, you didn't qualify for the exam.

MR. CORDOVA: No, I didn't qualify.

VICE ADMIRAL ZIMBLE: What was the --

MR. CORDOVA: And I haven't followed -- pardon?

VICE ADMIRAL ZIMBLE: What was the -- what -- what condition gave you the 70-percent service-connected --

MR. CORDOVA: A cold-weather injury in Korea.

VICE ADMIRAL ZIMBLE: All right. Okay.

MR. CORDOVA: Both legs.

VICE ADMIRAL ZIMBLE: Colonel?

COLONEL TAYLOR: I hate -- I hate to keep bringing this subject up, but if I may call you Sam --

MR. CORDOVA: Yes, sir.

COLONEL TAYLOR: -- I also attended a Marine Corps ABC school.

MR. CORDOVA: There it is.

COLONEL TAYLOR: By circumstance, I was an amphibious tank and tractor commander in Japan assigned to the 3rd Marine Division which deployed without one and I spent several years

attached to them. I was sent to an ABC school in Camp Gifu, Japan in I believe 1954, and I think I have in my service records a copy of my diploma from that school. I can tell you some of the details that we were exposed, as you said, that the Marine Corps used as ABC is similar to the Army using CBR, chemical, biological, radiation. I've been through those school. But the Marine Corps ABC school is very, very similar to it. And if you remember, one of the exercises often used is to expose you to one of those elements, take your gas mask off, make you state your serial number and home town --

MR. CORDOVA: Yes, sir.

COLONEL TAYLOR: -- and then leave.

MR. CORDOVA: That's a --

COLONEL TAYLOR: Now those kind of things happened. Now what relationship that has to ionizing radiation I'm not sure.

MR. CORDOVA: Uh-huh.

COLONEL TAYLOR: But Sam, I may can help you verify the fact that yes, you've now told me there was one you think at Camp Pendleton, one in Hawaii, one somewhere else, and I know there

was one in Gifu, Japan. So we've gotten some further and thank you very much.

MR. CORDOVA: Thank you, Colonel. Thank you very much.

VICE ADMIRAL ZIMBLE: Thank you for your testimony.

MR. CORDOVA: Yes, sir.

VICE ADMIRAL ZIMBLE: And now Mr. Hampton.

MR. HAMPTON: My name is Robert Hampton, H-a-m-p-t-o-n. I was at the Operation DESERT ROCK in Nevada Test Site, Operation TUMBLER SNAPPER, "Charlie" Shot. Bomb size was 33.1 kiloton, as I've read, which was about two and a half, almost three times larger than the one at Hiroshima. My group were participants, not down-winders, in the above-mentioned test shot. And we were within the concussion or the explosion. At the time we were told we were within 1.8 to 2.3 miles from zero point. A fire ring and the mushroom was directly overhead as it went off. Two seconds later I looked up and the fireball was above us, directly above us.

We were not in trenches, but extremely shallow furrows, no more than four -- four to six

inches deep and 24 to 30 inches wide. We were told to lay face down with hands over eyes and to squinch our eyes. The light was so bright, even with eyes firmly closed and covered with our hands, the hand bones were visible, as if viewing an X-ray. That was through hands, gloves, the whole bit, face down on the ground. The concussion immediately left us breathing contaminated dust and debris. We were not issued any type of safety equipment; i.e., respirators, ear mufflers, et cetera. Within 15 minutes we were ordered to march single file directly to zero point, then board truck and return to camp. The entire march was engulfed in contaminated dust. We marched by sheep -- some in trenches, some partially trenched -- that had their wool charred with exposed, bleeding flesh. Some were dead and others were just bleating, crying.

I know if -- I know of no one where radiation exposure -- I know no one checked for radiation exposure before being loaded onto the trucks. When an atomic bomb is detonated, the plutonium is vaporized, floating in air, and is ingested by those without proper breathing equipment.

The plutonium imbeds into the bones, manifesting itself 30 to 50 years later with the decaying toxic alpha particles being released, killing and mutating blood cells. Those are exact words as published by tests or research done by National -- or Los Alamos National Laboratories in Albuquerque and by a lady that was published -- or by a group headed by a lady that was done by the Mayo Clinic in Rochester, Minnesota. And those -- those tests and findings were all published on the internet, but it's also in a book.

This -- this causes many types of diseases such as cancers, tumors, mutated organs, arthritis, extreme vascular and body inflammation. The inflammation can severely damage the brain and kidneys, et cetera, which in turn causes many other types of problems, problems such as -- causes the kidneys to go bad. The inflammation can cause the kidneys to go bad, can damage the brain, many other different things. It also causes many intestinal disorders, circulation and pulmonary problems.

I have been told by -- told that doctors within the Department of Veteran Affairs, southern

California, has no expertise in diagnostic and treatment of exposure to ionizing radiation. I have a list, and I have given this to Colonel Taylor, I believe, and I will -- there's another copy that I gave to the front desk that I'm sure that someone there has. I will read that, if I may, some of those off.

These are my problems: A thyroidectomy, which was done -- I'm not going to read all the stuff that goes with it. I've had a thyroidectomy, anxiety and/or depression, inflammation and blood problems, renal kidney disease, arthritis, hypertension, indigestion and severe stomach acid, pulmonary inflammation and scarring, loss of hearing, bone soreness, brain damage, posterior subcapsular cataracts, fatigue and lethargy, asthmatic condition, prostate problems. Most of all of those have been diagnosed by the VA itself, some of them just recently.

It was approximately four years ago when I first went to the VA and through the -- and in going for the IR registry, the Ionizing Radiation Registry, I was -- I was told immediately, you know, what to do, appointment

with the doctor and what have you. I went to this doctor -- again, was within probably a week of first going to the VA -- and on entering her office, the first thing that she said was you have no problems. And I says what do you mean I have no problems? She says well, everything's fine. And I said well, what -- what is fine? You've done no testing. She said well, I can tell, everything is fine. I said well, how about my thyroid? And she says oh, that's okay, don't worry about it -- without feeling it, without knowing or anything. The thyroid was enlarged. It was -- had my -- my trachea more than 60 percent collapsed, which I did nothing except write a letter on it, and from that letter on I've written many letters and it's gone to the various sections of the VA, but -- but -- which I have also been classified as a problem patient, and that -- by that, I get little to no -- nothing anymore from the VA, and that's fact.

I go to private doctors. Within a year of going to the VA I did get 100 percent service-connected, and which was -- the monies I was

getting, most of it was going to private doctors. Then about a year and a half ago it was cut to ten percent. Under protest, they -- they boosted it back up to 40 percent. I protested again and had the formal meeting with it and there has never been anything come back since then, except that they did -- yes, there was. There was one letter that come back and said that also an additional ten percent was -- was allowed for -- for some loss of hearing or tinnitus in the ear. I have --

VICE ADMIRAL ZIMBLE: Excuse me, you have a 50 percent service connection now?

MR. HAMPTON: Now -- actually I'm being paid as 40 percent, but they've got it being listed as 50 percent, being paid 40 percent. So -- so because of the cutting, I had applied for -- fee basis, it's called, to where some monies could be collected for private doctors. Not only was I refused the monies, I was refused the privilege of filling out papers to -- to request the -- the fee basis monies. And that's -- that's true, and the last time was probably no more than three months ago. Consequently, everyth-- all my private doctors

-- I go to about four private doctors for various things. That comes -- well, from the Medicare and out of my pocket. The -- and I've -- the last that I talked to anyone at the VA Benefits was that they would do no more, could do no more, was -- would do nothing else until such time as the dose reconstruction program had been -- been re-- retabulated and that they had those dose reconstructions in their files. I personally could not care less about dose reconstruction. I do know that what I -- what happened to me in the -- in the -- in testing of the atomic bomb, I know that -- I have pictures taken by the Army that has been given to the VA Benefits and what have you that shows my squadron, the 140th Fighter Squadron and 140th Maintenance Squadron, marching, and so titled, to zero point in dust and debris still in the air. Again, we were not 20 miles away or five miles away. We were inside the concussion of the blast. But it would be nice somewhere down the line for everything to get together.

I can understand why a lot of these people are so upset, because I have been told many times

in meetings and what have you with the VA Benefits that certain things were not allowed, such as pulmonary problems, digestive problems, circulatory problems and what have you that were non-cancerous. That is not in the list that the Code of Federal Regulations 35 says that -- that is covered. However, I have read many of the results of -- and what have you of tests done by Japanese and Russians, the -- the Russians at Myak and of course the Japanese at Hiroshima and -- and Nagasaki, that there were more deaths in both of those -- in those researches that were caused by circulatory, pulmonary and -- and digestive problems or gastrointestinal problems than died with cancer. Yet most of these are, as I know it and I am told, are not covered by -- by the CFR 38. They're not allowed.

Other things -- I have posterior subcapsular cataracts, nothing's been allowed for that. The -- Benefits has not allowed it. The loss of hearing, as diagnosed in great depth by the VA, was -- is nothing. I did -- they allowed ten percent for some tinnitus that I have, sometimes it's worse than others. I do have a

hearing problem. My hearing from my left ear is delivered to the brain a lot -- in -- a lot later than the left ear does. Consequently, in talking to people that are -- or people talking to me is very -- almost mumbled, comes out almost mumbled. I have this problem, because of it, of talking loud. I think it's caused by hoping that someone else will talk loud to me. But anyway, that's -- I've -- I think I have probably said enough, and I will leave it to someone else to continue from there.

VICE ADMIRAL ZIMBLE: Let me just ask you, the thyroidectomy, what was the diagnosis for the thyroid--

MR. HAMPTON: It was multi-tumorous, multi-colored and everything, that was definitely through radiation. That was why -- one of the reasons I know that I did get 100 percent.

MR. PAMPERIN: You got 100 percent because of the surgery?

MR. HAMPTON: I have no idea what it was from.

MR. PAMPERIN: You are service connected then for residuals of --

MR. HAMPTON: I'm currently listed as 40 percent service connected.

MR. PAMPERIN: Right, but one of those conditions is post-operative thyroid cancer?

MR. HAMPTON: Yes, I believe it is. Yes, it definitely is.

MR. PAMPERIN: Right, the schedule does allow a temporary 100 percent evaluation following surgery like that, so -- but again, we'll be glad at the break to take your claim number and look into what exactly the status is on your -- on your current claim.

MR. HAMPTON: Well, it's not going to come until this is done -- I know until a dose reconstruction is done, and I have no high hopes then of it meeting anything, so -- because I've already been told that they will not accept certain other problems on there that are not covered under CFR 35 -- or 38, whichever it is, I can't remember. But anyway, thank you very much.

VICE ADMIRAL ZIMBLE: Thank you very much. Any other comments or questions from the Board?

(No responses)

Okay, Mr. Pontillas, Sr.

MR. PONTILLAS, SR.: Good afternoon, gentlemen. It's nice to see you all. (Unintelligible),

World War -- World War II, Korea -- Korean War and the Cold War and the Vietnam War. I'd like you to hear my -- if you hear it right, please, it's up to you. If you hear it wrong, it's up to you. God (off microphone and unintelligible) hydrogen bomb in Bikini. In 1956 I was aboard the U.S.S. Sheraton 790 destroyer. Okay. When they dropped that thing, I tell you, no protective clothing. The only thing that I have, because I was assigned to the damage control repair party, is that dosimeter that was hanging on your neck and they -- and that gadget that is ringing when you -- when they hear -- when you touch something (off microphone) that is radiation, it's going to be ringing like hell. That's the only what -- what we have -- thing. That's the last one that we have (on microphone) because five (unintelligible) of multi-megaton hydrogen bomb right there, except there is one, two, three, four and five. And beside -- that's beside the biological, chemical and the thermonuclear hydrogen bomb. That's exactly what we were told right there (unintelligible). Now there is two medical officer on the ship.

Commanding officers ship me over without any medical examination, what have you. Commanding officer send me off to -- not the Bikini -- the Enewetak Atoll. That's where the (unintelligible). They shipped me out to the Philippines (unintelligible). But it's shipping over for another six years. Nobody, no doctor signed my paper except the Third Class medical corpsman who signed my paper and pass it to the security officer and gave it to me and then shipped me out to the -- what's this -- to (unintelligible) and get the transportation there.

Two weeks later, you'd be surprised. I'm blistered all over my body. It's -- (off microphone) what is this? They got (unintelligible), itchy, running out -- what is this, running just like water in there. And I cannot eat. My stomach is all messed up. My wife -- still there. My wife tells me what's wrong with you? You just come in and you're sick like that? Mom, I'm not going to tell you anything. Why? I am afraid that our government's going to cut my head off. Why? It's top secret. You know it. You all know

it. So I said then what we're going to do? Well, if you got a little hot water or something like that, give it to me. (Unintelligible) for almost a month right there.

But before going to that vacation that (unintelligible) gave me, the doctor in (unintelligible) I think it was (unintelligible) already not to see any doctor outside if I get sick. That's exactly what he told me. The same thing when I come back from (unintelligible). I just have to go back on my terminal leave, so I don't have to be rushing anything in here because transportation at that time in the Philippines is not that good, 1956. So -- so then when my leave expired I told the doctor, Doctor, look at my body now. What's wrong with you? I don't know, they just come up. I was sick the whole leave time that I have. I was sick then to now. So the doctor said I'm going to put you on a plane Monday morning, the first -- first one to go on the plane. That's (unintelligible) the morning on a Monday on a plane going to Travis. What did they do in Travis? What did they do in Travis;

they send me to Atlantic Fleet, Norfolk, Virginia. There I reported and I told the -- what's this, the (unintelligible) over there, the OOD. I said Sir, I'm -- I'm here to report to you (unintelligible) Atlantic Fleet. And he says to me, You are sick. I know I'm sick, but they -- that's exactly -- you can have these papers I handed to you. So okay, go to -- go to the transit (unintelligible) exit and stay there and log in. And then a couple of -- couple of minutes, there's the Master at Arms that told me hey, you, you are going to Atlantic Fleet next week. Here's your schedule already there, which I have to catch this ship in Newport, Rhode Island.

So I was shipped to the Mediterranean, former Mediterranean (unintelligible) for one -- one month only that I stay because I was so sick. The Commodore find out that I'm sick. He says what's -- what's wrong with you? Sir -- I didn't tell him exactly what happened to me, but I say I'm sick. So go -- go to the sick bay and (unintelligible) corpsman. So I get the corpsman, give me -- I don't know what kind of pills she gave me, so then go back -- go

back to your -- what is this -- compartment and lay down there, but I cannot sleep even then during that time. One month almost before I get to the United States because (unintelligible) me again, too. (Unintelligible) so I waited for another transportation coming. When the transportation was so full that there was some (unintelligible) now. They said okay, and then the commanding officer said yeah (unintelligible) on the ship (unintelligible) the United States. Then that is where I (unintelligible) after three years. Three years right there in that -- itchy and all that stomach problem went to the sick bay, you know all that, and you see what happen now. The doctor said we cannot -- we cannot treat you (unintelligible). I got a high fever already, a high fever and all that, vomiting. What did they do? They just let me stay there and get the pills -- in the barracks, stayed there in the barracks.

Then my wife has got a -- (unintelligible) the Philippines. She's got a rash all over her body. She's (unintelligible) I say it's okay

with me. (Unintelligible) it's there. She's -- my (unintelligible) said hey, no matter what, we're not going to send you to the Philippines for (unintelligible). That's two Red Cross dispatch today station. The commanding officer send me? No. Then I -- then they assign me to the commanding officer and see the wife over there and (unintelligible) to the wife and said you're going to be here. I say what? You're going to be here working for us now. Well, I said (unintelligible) I got the (unintelligible) here. They're installed already. The Red Cross (unintelligible). No, you're not going to -- they're not going to send you. No matter what, we're not going to send you over there. So what did I do? I didn't do nothing, I just go back to my barracks, suffer because that itchy -- because at the time it was summertime. It's hot -- humid over there, kind of hot and of course itchy all over. And my shipmate over there telling me what the hell (unintelligible) you? (Unintelligible) was this in the jungle? I said no, but I don't tell him anything that I was in this -- ah, what's this -- Operation

REDWING, which is done by the Seventh Fleet about the (unintelligible). And when -- when I get to the retirement time on the ship (unintelligible) say what's wrong with you? Sir, I got -- what is this, a headache or -- my stomach's growling and everything like that. Maybe you just drink too much. I say Sir, I don't drink. I don't smoke, either. (Unintelligible) So from ship to ship, okay, 32 years service. They keep me on the ship mostly, working for the Admirals in there. They didn't -- they didn't give me any good shore duty, not like the other (unintelligible) were given shore duty. Not me, no. (Off microphone) (unintelligible) (on microphone) I know. They want you to do shore duty in Washington again. I say Sir, my (unintelligible) is here in the Pacific. I'm supposed to be on shore duty in 1956 and commander (unintelligible). What happened? Nothing. I was sent over there to be -- to work with (unintelligible) and say no, right there in (unintelligible) again.

Then I was confined -- I know one time I was confined there for one month. I was shaking

and (off microphone) (unintelligible) (on microphone) because we (unintelligible) working (unintelligible). And every day I go down there and try to check with them. So then -- but anyway, before I retire (unintelligible) the Pacific, I was bleeding and -- and then not bleeding, occasional bleeding on the ship. They put me on the base. They put me back on another ship, another Admiral there. That was some thing that I don't -- I cannot -- some of these people were telling me hey, you go -- you go on a ship all the time? I cannot do it. And every (unintelligible), so that's where I go. Just like that Operation REDWING, that -- the VA denied me. The CRAC* and the PTSD -- what is this, colonoscopy, they deny that until I got cut outside with this -- no, I still got it, the esophagus (unintelligible). I suffer since 1956. (Unintelligible) 1956 when we dropped that multi-megaton hydrogen bomb. So thank you very much and I hope some of you people understand where I come from. I didn't just -- what is this -- get this story or something. I hope Mr. -- right there, national commander, he's here. That Operation REDWING,

he was there. Thank you very much.

VICE ADMIRAL ZIMBLE: Thank you. Any questions from the Board? Are you in the ionization registry?

MR. PONTILLAS, SR.: Pardon me?

VICE ADMIRAL ZIMBLE: Have you registered in the VA with the ionization registry?

MR. PONTILLAS, SR.: Yes, sir, but they lose my -- they lose my record during (unintelligible). They always -- they always gave me shots, then X-ray and then pills. The time they give me pills (unintelligible) I drop out because so many pills I used to take.

VICE ADMIRAL ZIMBLE: Okay.

MR. PONTILLAS, SR.: Then they said I got (unintelligible).

VICE ADMIRAL ZIMBLE: All right.

MR. PONTILLAS, SR.: That's why I got a stroke and I got this. Dr. Rosen when he was here in that VA, he give me ten percent because I got the ulcer cut, he said it was cut.

VICE ADMIRAL ZIMBLE: Okay.

MR. PONTILLAS, SR.: But I don't know what they got. They got about -- the doctor in (unintelligible) about that size. I was cut

right there in my stomach. I don't know. They don't want to give it to me, either.

VICE ADMIRAL ZIMBLE: Okay. Thank you -- thank you very much for your testimony. We have it all on record now. Thank you.

MR. PONTILLAS, SR.: Thank you.

VICE ADMIRAL ZIMBLE: Ladies and gentlemen, to give the Board members a little bit of a break, we're going to take ten minutes. We still have two more -- two more individuals that would like to make comments, and we will definitely hear you. Also Commander Ritter would like to make a statement, and we'll make sure that that's included. So let's reconvene here at 3:35.

(Whereupon, a recess was taken from 3:20 p.m. to 3:35 p.m.)

VICE ADMIRAL ZIMBLE: All right, ladies and gentlemen, we're about to hear some testimony. All right, the floor's yours, Mr. Brady.

MR. BRADY: Thank you. In deference to the hour, I'd like to truncate my statements and if I could turn in a written copy --

VICE ADMIRAL ZIMBLE: Yes, that'd be fine.

MR. BRADY: Thank you. My name is Terry T.

Brady. I am an atomic veteran falling in the category of veterans who were assigned security and handling duties over various nuclear components during the 1950's. I spent nearly two years stationed as a non-commissioned officer at Marine barracks, Lake Mead Base, Nevada. I was cleared top secret Q. I currently reside in Anchorage, Alaska.

As you are undoubtedly aware, it was not until 1995 that then-DoD Secretary William Perry lifted the ban on cleared personnel to allow discussion of medical problems that may or may not have occurred as a result of official duties. For 40 years I and others like me were in a state of limbo concerning alleged service-connected disabilities and diseases, whether they were presumptive or otherwise, that may or not have been triggered by exposure to radiation or other illnesses or traumas that may have occurred as a result of secret activities.

I know this panel is not charged with anything beyond the reconstruction of radiation doses, but I bring this additional matter up because as far as the individual veteran is concerned,

how, when and why his or her maladies began while on active duty is secondary to the questions of lack of equity and fairness in the process, mostly beyond the needs of national security.

Adding a dose reconstruction to a claim resulting from secret duties, and forcing the veteran to prove the unprovable, only compounds the injustice perpetrated upon the veteran and his or her family.

That said, I'll now speak directly to the issue of dose reconstruction. And though I am not an expert in dose reconstruction or nuclear physics, I do have advanced degrees in biology and related sciences. I know that several of you have long and distinguished careers in the field of dose reconstruction, and I hope I am not personally or professionally insulting when I say it is my opinion that attempting to reconstruct the dose of whatever kind of radiation an individual may have or may not have received is voodoo biological and mathematical science, given the unmeasurable randomness and chaos faced by an individual at any one time and place, or for many people over

various times and in various spaces.
In most instances, initial radiation doses were never adequately measured. And if was not or could not have been measured, then common sense says that it cannot be reconstructed. Or as an elementary English teacher would say, what was not first constructed cannot be reconstructed.
During these hearings you will hear from others more skilled and more up-to-date than I even though, as I say earlier, I have advanced degrees in natural and physical sciences. I hope these people will go into more detail of the failures and fallacies of the dose reconstruction program. In the meantime, the expense and controversies over this issue causes -- to determine the causes of maladies among veterans exposed to radiation or other events related to the national security continues -- I mean nation's secrets continues. I shouldn't have said national security because the use of "secret" has gone far beyond national security.
Thus I sincerely request that this august body, based on science and morals, advise the Congress of the United States that the best

thing that could happen to the dose reconstruction program would be for its swift termination. I strongly urge you to support H.R. 2962, the Atomic Veterans Relief Act now before Congress, that would do away with dose reconstruction.

I further believe that few atomic veterans really see themselves as victims. Rather, in my opinion, they see themselves as loyal Americans who have been denied due respect for their services and sacrifice, who would rather be part of the solution than pawns being used to extend the problems, the problems of short and long-term health effects that began when we pulled the cork on the bottle containing the nuclear genie.

Thank you very much for your time, and I'll submit this. There's some other issues in here that I would like to have in the record.

VICE ADMIRAL ZIMBLE: Thank you very much for very articulate testimony, and we appreciate the information you can leave right here at the table. I'll make sure it gets put into the record. Well, thank you, and thank you for your trip down here from Anchorage. It's much

appreciated.

Any comments or questions from the Board?

(No responses)

Okay. Thank you again, Mr. Brady. Now Mr. Malone.

MR. MALONE: I've made a outline here I would like to have you gentlemen and ladies listen to. It says my name is James E. Malone and I served in the United States Navy, Mobile Construction Battalion 11 -- you know, obviously the Seabees -- from 1960 to '62. And during that time I was stationed out in Guam, and Guam, as you know, is a radiated (sic) island, if you're familiar with Robert's Celestial's communication with a 97-page document on what has transpired with the citizens and the soils and the oceans, et cetera, et cetera and the currents therefore. From '62 to '64 I was assigned to Fleet Activity Yokuska (sic), and I was sent TDY to Atsugi, Japan for atomic, biological and chemical warfare school. In March and April of '63 I was assigned to attend the atomic, biological and chemical warfare school. And at Atsugi, Japan, having studied about atomic,

biological and chemical warfare, I was under the impression that being -- the assignment to Atsugi was just an extension of the education that I had received in '61. Well, that education I had received in '61 was the Navy BUPERS manual that I had taken to advance myself in the future. If certain situations were to arise, perhaps I would have been an asset in a -- in a crises (sic).

I was told upon completion of the school, and I put that in quotations, I was going to be on the augmentation force to the Marine Corps for the Yokuska (sic) Naval Base, Japan for security purposes. And never in my wildest dreams did I ever think that I was going to be subjected or -- yeah, to the exposure of unknown substances. While attending the atomic, biological and chemical warfare school I was exposed to unknown chemicals, gases, toxins, radiation, biological agents, et cetera.

Although I am aware of the exposure to mustard gas and the CN and the CS gases for the -- well, I've got the scars on my arm from the mustard gas -- we were also required to wear

dosimeters every day for radiation and ionization. On occasion we had to bring extra dungarees, underwear, socks, hats because the clothing that we were wearing during testing were to be destroyed. We were not allowed to wash them at the base machines for fear of contamination.

I was honorably discharged on August 5, 1964. In December 1966, at the age of 24, I was diagnosed with fibrosarcoma cancer. This is a very rare form of cancer that was found in the same leg, same area, that I was required to inject an unknown substance into my leg during my assignment to ABC school. Then I also have suffered numerous other maladies, and all are presumptive under the Code of Federal Regulations.

There's never been any question in my mind that the cancer that I suffered was the result of the exposure to unknown chemicals, toxin, gases, et cetera -- that includes your radiation and your ionization -- that I was forced to inject, ingest or apply to my body. I have tried for years to prove that my cancer was the result of the exposure I endured during

my assignment to ABC warfare, and to include my service on Guam, Midway Island. It's impossible to prove the records -- for the records of what took place in ABC warfare school for they were destroyed.

This information came directly to me from Senator Jon Kyl of Arizona via Captain P. O. Wheeler, Deputy Director of Naval History, United States Pentagon.

I have continually denied -- I have been continually denied my claim by the Veterans Administration due to the fact that I couldn't prove it, that I got it in the service, even though I was given confirmation from Dr. Debra Linsley*, the Ionization Radiation Registry physician at the VA hospital in Tucson, Arizona that the fibrosarcoma cancer was presumptive from the ionization radiation/AGAO -- excuse me, agent orange radiation. She's -- she's the -- she's the physician that does ionization radiation/AO. And in the letter that I received from Captain Wheeler that clearly states the nature of the events related to Mr. Malone's time at the atomic, biologic, chemical warfare school suggests the possibility of his

having been selected to participate in the medical research and testing.

Now since 1996 I've been trying to get someone to listen to me to say okay, you got it from the military, you got it in school, you got it from the A-- you got it from ionization radiation. Now when you have the attending physician talking to you and she said here, fill out your form for compensation, that's what you do. But the government kept saying to me, prove it. Prove it. So with the help of my dear Senator, I have a letter from him and his response from the Department of Navy, Office of Chief Navy Operations, Pentagon.

(Reading) I'm responding on behalf of the Director of the Navy's House Liaison Office to your recent letter concerning the request of your constituent, Mr. James Edward Malone, concerning his service-connected medical disability claim. Inquiries to the Naval Historical Center's Aviation History and Operational Archives branches determined that neither office has custody of historical reports or other related records from either Naval Air Station Atsugi or the atomic,

biological and chemical warfare school from '63. The Operational Archives branch reviewed its command history holdings for the post-World War II period and located Naval Air Station Atsugi command histories from '62 to '69, the closest years to -- in the collection to '63. Neither reports contain -- neither reports contains mention of an atomic, biological, chemical warfare school. And similar activities based on this information that can be reasonably (sic) to assume that this was the locally-established activity vice a formal Department of Naval Command, and as a consequence any records were very likely considered temporary in nature and destroyed when the activity was disestablished.
How do you prove it? How do you prove it?

VICE ADMIRAL ZIMBLE: Your only exposure -- potential exposure to ionizing radiation would have been at the ABC school. Is that correct?

MR. MALONE: There --

VICE ADMIRAL ZIMBLE: That's the rub.

MR. MALONE: I beg your pardon?

VICE ADMIRAL ZIMBLE: And?

MR. MALONE: And Guam.

VICE ADMIRAL ZIMBLE: And Guam, all right. But were you at -- you -- you're not part of any atmospheric test?

MR. MALONE: Well, on Midway Island we had a blast on December 4th went on --

VICE ADMIRAL ZIMBLE: Okay.

MR. MALONE: -- off of Hawaii, and this is at night.

VICE ADMIRAL ZIMBLE: Okay.

MR. MALONE: I mean this is 10:00 o'clock at night. That sky lit up like a flashbulb.

VICE ADMIRAL ZIMBLE: Okay, how -- how --

MR. MALONE: And then it turned red like this man's shirt. Then the winds came.

VICE ADMIRAL ZIMBLE: I don't know whether or not -- I'd like to ask a question of a member of the Board. Is -- is this enough of an experience to be included within the cohort of what we have labeled atomic veterans?

(No responses)

I don't think we have an answer to that question. Colonel Taylor.

COLONEL TAYLOR: I think at this point in time it should be considered yes. If we develop that there isn't enough information, we can say

no, but he has some very interesting, relevant information that I think very seriously should be considered. Thank you.

VICE ADMIRAL ZIMBLE: Yeah, it's -- I don't think it's within our purview to include or exclude any -- any individuals from that classification of atmospheric atomic tests or occupational forces in Nagasaki or Hiroshima. That's statutory. But I think we ought to follow this up and see what there is.

I would also ask if anybody knows whether or not part of any curriculum of any of the atomic, biologic or chemical warfare schools included exposing students to ionizing radiation. That would be -- to me, that would be a surprise.

COLONEL TAYLOR: I went through the school and I don't remember, but I'm going to do some research.

VICE ADMIRAL ZIMBLE: Okay, I think it's --

COLONEL TAYLOR: And it was far more extensive --

MR. MALONE: (Unintelligible) and we had to handle things.

COLONEL TAYLOR: It's far more extensive than

he said. We've got indication it was in Hawaii, it was in several other places.

VICE ADMIRAL ZIMBLE: Right.

MR. MALONE: I was at Guam, I was at Midway Island, and I also lived in Japan.

VICE ADMIRAL ZIMBLE: Okay.

MR. MALONE: You know, and --

COLONEL TAYLOR: It should be in the record somewhere.

VICE ADMIRAL ZIMBLE: That -- but in -- the Japan business, like Hiroshima and Nagasaki, was really time-related. According to statute. That doesn't mean that we're -- we're not going to pursue this. There are other individuals who have been exposed to ionizing radiation that can get consideration from the Veterans Administration. It does not have to be one of the category of atomic vet. So let us -- let us explore that and see what we can -- see what we can find.

MR. MALONE: This has been ongoing for --

VICE ADMIRAL ZIMBLE: I un--

MR. MALONE: -- a long time. You know what? And not only -- not only do you have the maladies -- not only do you have the maladies

that -- my goodness, you have cancer, which has been denied by the VA. I've had my thyroid removed from my, you know, hyperthyroidism. It was removed with 8.3 millicuries of radioactive iodine.

VICE ADMIRAL ZIMBLE: Uh-huh.

MR. MALONE: I've got subcutaneous nodules. Operations on my stomach have taken off these -- these subcutaneous nodules, being removed, right? I've got skin cancers on my arms, my legs, my necks (sic). From this I've had hypertension --

VICE ADMIRAL ZIMBLE: Do you --

MR. MALONE: -- depression. I've had nephrolithiasis calculi. I've got papillar lesions. I've got heart palpitations and afib. And along with that, since 1966, I've got one of the worst cases of silent pormet/coronet* you've ever had in your entire life. It just isn't right.

And I appreciate your time and I really, really appreciate the opportunity to thank all of you for just listening, because more voices you hear, I would only hope that this staff would just take into consideration that this is --

this is difficult to go with. I've got more years behind me than I've got in front of me.

VICE ADMIRAL ZIMBLE: I -- no, that's -- we appreciate that, Mr. Malone.

MR. MALONE: I appre--

VICE ADMIRAL ZIMBLE: You -- you did have a personal dosimetry. Do you have any records of any of the results of the -- of the dosimeters that you wore?

MR. MALONE: Oh, no, sir.

VICE ADMIRAL ZIMBLE: No?

MR. MALONE: No, none whatsoever.

VICE ADMIRAL ZIMBLE: No, okay. Okay.

MR. MALONE: No, none whatsoever, but we did have to inject ourselves with anti-neurological agents. And if it wasn't in to their satisfaction, they made it to their satisfaction, mustard gases, et cetera.

VICE ADMIRAL ZIMBLE: Right.

MR. MALONE: But what I want to know is what constitutes a person being chosen to go to these schools, to go through all these things to have all of these maladies happen to you and then be denied, to me is just unconscionable, and I'd appreciate some follow-up on my case

and everybody else that's involved here. I thank you very, very much for your time.

VICE ADMIRAL ZIMBLE: Your comments are -- are appreciated. Thank you, sir.

MR. MALONE: Thank you very, very much.

VICE ADMIRAL ZIMBLE: Right.

MR. GROVES: I'd like to make a few comments about the -- what we called in the Navy "indecent warfare schools," and we actually for a long period of time had two of them established, one at Treasure Island in California, the other at the Naval Station in Philadelphia. And I was a student for one month at that school, as I assume that Paul and Gary were, as well. And in fact we had radiation health officers like ourselves assigned to those schools because they did handle radioactive sources as a part of the training. And it was training on what would happen if ships were involved and shore units were involved in nuclear blasts, and we were -- we were instructed and we instructed people on how to use the proper instrumentation, and part of the training included having real radioactive sources that would make the meter

dials swing to make the -- to make the training realistic. Now --

MR. MALONE: It was realistic.

MR. GROVES: It was very -- very realistic, and -- and I think it was very valuable at the time during the Cold War when we thought we might, you know, have to have that kind of expertise in the fleet. However, I do believe that it was -- one of the reasons we had a dedicated radiation health officer assigned to those schools was to ensure that people's exposure was kept as low as possible and while -- and that's the reason I believe that you probably wore a dosimeter. The staff at the school, their film badges and dosimeters are -- are in the record. Students who would go through for a couple of weeks or a month would normally not have their dosimetry filed, unless they had an exposure that was unusual. But just to confirm the fact that radioactive materials were used in those schools as a part of the training, but that it was controlled. And I think as the Admiral said, while you may not qualify under this particular program, there are other programs within the Veterans Administration

where, if your maladies are considered to be radiation-related, they could go back and do a -- a dose for that, as well. So...

MR. MALONE: (Off microphone) Well, if your records have been destroyed, how are you going to go about getting an assumption of how much there was when the CFR -- it states that if your records cannot be found or if they have been destroyed, I think that 33.04 or 33.07 states (unintelligible) assume (unintelligible) that the person was there, he did receive the highest amount of radiation that would cause that malady, and that's what it states, 2004 CFR.

MR. GROVES: Well, I think that what we can do for you is we can go back through the records that exist and -- and while I'm not familiar with the school that was at Atsugi --

MR. MALONE: (Off microphone) Atsugi (unintelligible).

MR. GROVES: -- we can certainly look at similar activities that took place, and I would -- I'm looking to Captain Blake for this -- to help in determining what kind of exposures as a student you could have received at the schools,

because we do have records from the school at Treasure Island and the school at -- at Philadelphia.

MR. MALONE: (Off microphone) But doesn't it -- isn't it true that no amount of radiation is safe?

MR. GROVES: That would be an over-simplification, but what we can say is we can determine what the maximum dose you could have received, and then the VA can have that number to make a determination through their process whether or not the disabilities you have might have been caused by that dose.

MR. MALONE: (Off microphone) Well, I want to -- I wanted to, if I may, let you know that in the military I was (unintelligible) also in construction (unintelligible). And I was (unintelligible) champion swimming. I went to the far East, Japan '62, '63 and '64. I was All-Navy champion swimmer, basketball, baseball. And those three years (unintelligible) well. And two years after I get out, I mean (unintelligible) -- '77 is when I had my (unintelligible) operation. I had a biopsy done November 17th and they called me

back (unintelligible) San Francisco (unintelligible) came back (unintelligible) eleven times (unintelligible) cancer. And to this day, 40-something years later, every doctor in the VA says is there anything about you I should know, and I said yeah, I've had fibrosarcoma cancer. And some of their responses are Christ, you're still here? And I said yeah. You know, it's -- it's one of those things that I've had instilled in me to never give up, don't let anything ever defeat you. You (unintelligible) ever lay down and die, you know. You can't. Now according to the (unintelligible) earlier about consequences to an offspring, I have a son that's had a malady with multiple, multiple growings of moles on -- moles upon his back. I mean they just (unintelligible) and I had to go to the same doctor who performed my operation and (unintelligible) holiday. That was (unintelligible), but again I want to thank you guys very, very much for just listening -- just listening.

VICE ADMIRAL ZIMBLE: Thank you. Dr. --

MR. GROVES: And thank you very much.

VICE ADMIRAL ZIMBLE: -- Swenson. Dr. Swenson.
DR. SWENSON: I just have a question. In the Navy did -- before 1968 did they put exposures on the DD1141 and would they -- might they have done that from those schools? Because after that you had the central registry.
DR. BLAKE: I need to ask a question directly with regard to that to Mr. Malone.
MR. MALONE: Sure.
DR. BLAKE: Do you remember what type of dosimeter you wore when you were at the school? Was it a little locket around your neck that was black, or was it a --
MR. MALONE: (Off microphone) No, no (unintelligible) --
DR. BLAKE: -- silver film badge?
MR. MALONE: -- (unintelligible).
VICE ADMIRAL ZIMBLE: Badge?
MR. MALONE: (Off microphone) Yes -- well, it was (unintelligible) --
VICE ADMIRAL ZIMBLE: Okay.
MR. MALONE: -- (unintelligible).
DR. BLAKE: It was presumably a film badge where we probably recorded the exposure -- the other type of dosimeter we used at that time

was called the DT60. It was a solid state phosphate class, but the trouble with that other dosimeter that people were issued, the minimum exposure that we could detect on that was something called ten Roentgens or ten rem, so we wouldn't have kept those results because presumably you weren't exposed to that much. But if you wore a film badge, hopefully we do have some records on you. So we --

MR. MALONE: (Off microphone) Well, I would hope, I --

DR. BLAKE: Right.

MR. MALONE: (Off microphone) Excuse me, I'm sorry.

UNIDENTIFIED: (Off microphone) (Unintelligible) to hear.

MR. MALONE: -- yeah, I don't -- if -- if the records have been destroyed.

DR. BLAKE: With regards to film badge records, the places we keep those were in your health record, which we may or may not have but we can certainly follow up, but the Navy also had a central repository for both Navy and Marine Corps at the Naval Dosimetry Center. And that's another place we can look for the

records, too. So perhaps after -- when we have a break, if you'd come up --

MR. MALONE: Sure.

DR. BLAKE: -- we can do a follow-up for you on those records.

MR. MALONE: I'd really, really appreciate it because this has been -- well, like I stated before, you know, 40 years of just torment. All you do, for Christ's sake, is just think what is going to befall me next. I mean, you know, when you come down -- when you wake up in the morning and your heart rate is 250 over -- and -- and it's nuts, and you've got palsy and you can't think and you can't sleep, that's taxing. And then you go somewhere and they say well, here -- and they give you a handful of Valium. I said I'm not taking any Valium. I said I want to see a psychiatrist. And they said why, why a psychiatrist? And I said well, one, they're physicians first and they'll know if it's physiological. Two, they'll know if it's psychological. So with the grace of God, I got a chance to see Dr. Trico* at the VA hospital in Tucson, Arizona. And we talked for a bit, did a family history, et cetera, et

cetera, and I asked her after an hour or so if I was a full-blown nut case. And she said au contraire, you, I think, need to have a blood test. It came back and my TSH level was supposed to be between 0.8 and 1.8 -- it was damned near 6. So she put me on metropolol (sic) and methamizol and propanelol and coumadin and (unintelligible) coated aspirin to the tune of 793 pills in 90 days. Well, I did it at 6:00, 2:00 and 10:00 to get that stuff in my system, every eight hours to have it in there constantly. I went back, then they upped it, then they lowered it, then they took some out, then they put some back in, then they little -- little less, little more. Christ almighty, I said isn't there another avenue we can take here? I said this -- this is frightening. I said you know, I'm -- I'm having suicidal thoughts, and I said that, to me, is, you know, a red flag. And I said what can be done? And he said well, let's try this, Jim. And I said all right, fine. And then after -- well, damned near five years, I said what are we going to do? And the guy said why don't we ablate it. And I said why didn't we

ablate it seven years ago, for Christ's sake, you know. So anyway, to make a long story short, it was ablated, 8.3 millicuries, I know that. I know that number well. And -- well, I used to weigh 225 pounds and now I weigh 310, so it was hyperthyroidism and now it's hypothyroidism. And with that comes the hypertension and the blood pressure and -- Christ, you name it. And like I said before, I was a hell of an athlete for a lot of -- lot of years until this happened, and then all of a sudden -- I'm just glad I have this format to talk to you fellas, and these ladies. Thank you very, very much. I really appreciate it.

VICE ADMIRAL ZIMBLE: Thank you. Now are there -- where's -- where's Commander Ritter? Okay, Commander Ritter, you're on.

MR. RITTER: I want to thank the Board and the Chairman and the members of the Board for putting this on today and again tomorrow. I want to thank the atomic veterans for -- who are here for being here. Certainly the stories are the same stories you heard in Tampa, probably the same stories you'll hear tomorrow and the next time you meet and the next time

you meet. And none of them are really any good.

My purpose for -- for being here right at this moment is to say thank you again. And I had an e-mail letter from a Roger Jenan who was in Operation REDWING, and he wrote a letter to the Department of Veterans Affair, copy to the DTRA, and hasn't gotten much in the way of satisfaction. So I assured him that I would let this go to the Board for the record. And again I want to thank you and thank the veterans.

VICE ADMIRAL ZIMBLE: All right. That -- that will now conclude the public comment -- wait...

UNIDENTIFIED: (Off microphone) (Unintelligible)

VICE ADMIRAL ZIMBLE: Okay, I -- we didn't have you on the registry, but please -- please come -- come and testify. Could -- could we have your name?

(Pause)

Okay, this is Mr. Cohen?

MR. COHEN: That's it.

VICE ADMIRAL ZIMBLE: Okay. I don't have you on this list, but go ahead.

MR. COHEN: Fine, thank you.

VICE ADMIRAL ZIMBLE: You're there.

MR. COHEN: Thank you for having me here, and I want to thank special to -- (off microphone) there she is -- to Dr. (unintelligible) for having me here. (On microphone) Thank you, Doctor. Okay?

I was in the Navy, First -- Seaman First Class, and we were the ones that ran the ships.

Sorry, Admiral. My wife and I also volunteer at Sepulveda VA California for ten years. I am the member of the Jewish War Veterans, Disabled American Veterans and American Veterans.

My ship, LST, landed on Nagasaki, Japan about two months after the A-bomb was dropped. The next day I rode on a truck to the center where the A-bomb went off, ground zero. I walked around on the black dust and felt the hot ground under my feet. This was the old age of 18 and three-quarters. Within six months I was issued eyeglasses at Roy Island. I developed macular degeneration from exposure of radiation. This is an old-age disease. I went to Kaiser at the age of around 36 and the doctor was Dr. Polaski*. He was shocked that

he seen a young fella with macular degeneration, so he turned me over to the head eye doctor, Dr. Schum*. He said to me don't worry, usually it goes away and you never have it in the other eye. I guess I was lucky, it stayed in my eye and I got it in the other eye. When I was getting out of the service I was having a lung problem. They told me if I can't stay in, they will take care of me or my lung problems, or go to the nearest VA hospital to take care of this, which I did in New York City. A year and a half later I came to California to get married. In California I was treated for about two months and then I stopped. I didn't think it was helping me. A friend of mine told me since I was in Nagasaki I was a radiation vet and the VA will take care of me. I went to the VA and I filled out papers. Months later the U.S. government said I was never in Nagasaki and the ship was never in Nagasaki.

This fella George Dickson, who's the DAV service officer at the VA, told me to get in touch with the Navy Archives. I said you're crazy. That's still the government. He said

try it, which I did. They gave me the date and time that I was in -- over there and the ship was there, but the government again said we believe that, but there wasn't enough radiation at that time. That was a lie, too. They didn't know how much was there at that time, but Japan said it was high.

Lie three, about a year ago they send me to an outside eye doctor, which they paid about $900 to -- to examine me, to check me out. The government told me not to bring any records with me as they gave him, the eye doctor, all the information he needed. I only brought one piece of paper with me from my eye doctor that was being treating me for about 40 years, the first one. Since he -- he said he believed at a young age of 36 when I went to him that he was sure that I developed macular degeneration from radiation in Nagasaki. Their eye doctor said that that was his opinion. That was funny, this guy -- doctor was treating me for about 40 years. He treated me for ten minutes and he knew? He says if you don't like it, you better see a lawyer.

Right after that my wife and I went back to the

nurse and said when did he get the papers from, and they said from the year 1999. Sure, I was old at that time, but that was the papers that they should have given way back at beginning. And -- and the fourth lie was that they couldn't find any records in New York City VA hospital for my asthma, and we been going on this for ten years now.

For the skin cancer on my face, Kaiser doctor at the time, a (unintelligible), said that sailors was exposed to skin cancer because of the ocean and metal deck since we didn't have any head gear at that time.

Thank you.

VICE ADMIRAL ZIMBLE: Thank you. Any comments?

(No responses)

Okay, we've gotten your statement for the rec -- - yes, sir?

UNIDENTIFIED: I'm not on the list, but I'd like to make a comment.

VICE ADMIRAL ZIMBLE: Okay. Could I have your name, please?

MR. GARCIA: Ramon Garcia.

VICE ADMIRAL ZIMBLE: Okay.

MR. GARCIA: I was a participant in Operation

CASTLE.

VICE ADMIRAL ZIMBLE: All right.

MR. GARCIA: And it's been very interesting to hear all the different -- all the effort that's been done to try to establish dose reconstruction for veterans. But I've always thought about the next extra -- X-ray may be the thing that's going to trigger since my exposure to ionizing radiation. It's really nothing that has -- stops, and having taken part in Operation CASTLE, we were never on virgin ground over there, Bikini and Enewetak, where we swam in the water and we ate and drank on those islands had already been the site of four other series of tests. And we even become downwinders because in civilian life we've traveled all these areas where the tests have been done in the United States. So we -- we always seem to be a participant to exposure, never knowing actually when -- what amount is going to be triggered.

And -- well, my point is with all this effort and -- that's being done for reconstruction, I would ask the panel to eliminate reconstruction and presumption for on-site veterans that have

taken overdoses of radiation because it's -- with all the uncertainty and trying to calculate and ratios and charts, being on-site and having done it as a duty, we had no choice about doing our duty and we did it willingly, and not knowing actually what the consequences were going to be.

I, for myself, have been in relatively good health. But I hear the story of my fellow veterans and it's always been on my mind that -- - what is going to trigger this overexposure that I've had throughout the years. And so I -- - I would like to ask the panel to just stop reconstruction for on-site -- dose reconstruction for on-site veterans who were on a duty station. They couldn't leave if they didn't like the first shot, and they couldn't leave if they didn't like the second shot. We were duty-bound and willingly doing our service. Thank you.

VICE ADMIRAL ZIMBLE: Thank you very much. Yes, Mr. Malone? Right.

MR. MALONE: In addition to what I've already spoken to you about, Guam was a radiated (sic) island. And it was hot when I was there and

it's hot today. And I worked on Gabgab Beach, I worked in (unintelligible) Harbor, I worked at Fadian Point, worked at Talofofo Falls area, Finegayan, Barrigada, and that was all construction where we had to move the earth. For whatever fell on that earth, we were in it. We were in the trenches, we were in the jungle, we were -- we drank the water from all the -- all the reservoirs. They don't have any underwater things there. It all comes in from -- from -- I guess sedimentary rock, however. But we drank it, we swam in it, we ate the fish, and that was another point.

And another thing I was going to say, in Kamakura, Japan -- which is just down the street from Yokuska (sic) -- I read an article the other day where the Japanese scientists went there and the Kamakura Beach is still hot. And then being a downwinder on Guam and being a downwinder on Midway Island, and then living in Japan where it was still radiated (sic) on those beaches, et cetera, et cetera, I don't know -- we were never required to a dosimeter then, and I don't know what's going to constitute a small dose or a large dose or, you

know, do you get it osmosisly (sic)? I don't -- I don't know. Does it come direct? I don't know. But I just want to let you guys know one more thing, and that was what I just said and I just wanted to get that in just as a point of interest. Thanks again.

VICE ADMIRAL ZIMBLE: Thank you very much, Mr. Malone.

Okay, here -- seeing no further comments, I'd like to move on. We're now about 15 minutes behind -- yes, sir?

MR. WYANT: I'd just like to ask for a comment from you people. Will I hear from you about my situation since I'm the only sole survivor of those in Los Alamos?

VICE ADMIRAL ZIMBLE: Well, I --

MR. WYANT: Or do I have to die first?

VICE ADMIRAL ZIMBLE: No, no, we don't want you to do that.

MR. WYANT: I would appreciate it if I were to hear from you.

VICE ADMIRAL ZIMBLE: Okay.

MR. WYANT: And I -- if you don't have it, I have it and I'll give you a copy and then you can make it and give it to everyone else in

your committee, the citation from the National Association of Atomic, it's called TRINITY site advisor, and I also have a copy of Oppenheimer's letter of October of '45.

VICE ADMIRAL ZIMBLE: Well, we have representatives on the Board that represent the Veterans Administration and representatives representing the DTRA and the NTPR, and they -- they have heard your testimony and they'll take it for action. Thank you.

A BRIEFING ON NTPR DOSE RECONSTRUCTION, QUALITY ASSURANCE MANUALS AND VETERANS COMMUNICATION ACTIVITIES

DR. PAUL BLAKE

And now I'd like to proceed with -- with the remainder of our agenda, and our next speaker is Mr. Paul Blake, who needs no further introduction -- I'm sorry, Dr. Paul Blake needs no further introduction, going to talk further about the -- some of -- some of the recommendations from DTRA.

DR. BLAKE: Thank you, Admiral, for your kind introduction. My fellow Board members, interested parties and our -- my fellow veterans, I'd like to give you today an update on the Nuclear Test Personnel Review Program at my agency, the Defense Threat Reduction Agency.

What I'd like to cover today in this approximately 25 to 30-minute presentation is a discussion on post-National Academy of Science/National Research Council study since 2003; move on to looking at some of the prostate dose results we've seen since 2003; similarly take a look at some of the skin dose results; move on to discussing quality assurance in the program; discuss some veteran communication activity; and finally summarize with what we -- what I see as the road ahead.

The National Academy of Sciences/National Research Council in 2003 issued a report that had a major impact on the program at my agency. We call it ***The Green Book***, as you can see there. It was a review of the dose reconstruction program of the Defense Threat Reduction Agency. It eventually led to a Public Law that led to in fact this Veterans Advisory Board on Dose Reconstruction. I'd like to give you a brief summary of the status since that report came out.

The NAS study recommendations resulted in a revision to the procedures in our program. No dose reconstructions were performed for

approximately six months once that report came out, May through October of 2003. In addition, the Department of Veterans Affairs returned a number of dose reconstructions we had previously performed. The National Academy of Science study had brought into question some of those -- some of those studies, and so they were returned for us to re-look at.

The challenge has been, since 2003 -- and it's impacted many of the veterans that have testified here today -- has created a backlog in dose reconstructions. And that's proving particularly challenging for us at the Defense Threat Reduction Agency, the Department of Defense, in reducing.

This is a curve of what actually happened there. And it's also -- besides being a challenge, it's also been expensive, too. If you look at that curve, it peaked right around -- when ***The Green Book*** came out, when those studies have come back. And despite some challenging work as we've tried to improve the process, that curve has not come down.

Why is that of great concern to us in the Department of Defense? Because some of the

veterans' claims that have come to us have been in our office for over -- in some cases, over two years, almost three years. And in some cases, some of those claims that we're working on were already at the Department of Veterans Affairs for an extended period of time, also. That's unacceptable, and what we're trying to do is bring that -- bring the curve down and give the turnaround time that the veterans deserve on doing our input from the Department of Defense.

If we look at that backlog of cases, what does it break down into? Total pending cases as of the beginning of this month were about -- a little bit over 1,500 cases. And you'll see, for instance, we do support some of the Department of Justice compensation cases, but they don't request a dose reconstruction. As of now it's simply presumptive dose, the presumptive awards. If you were at this particular location, then you qualify for compensation. You don't need a dose reconstruction. Consequently, those cases come in quickly, we turn them around quickly. You can see there's only ten cases, and they've

only been there for a short period of time. Similarly, people can come directly to us. You don't have to go to the Department of Veterans Affairs or Department of Justice. You can ask us directly to do information for you. And for instance, some of the queries that came in today, hopefully we'll be able to respond to those questions you've had.

Also the VA comes to us simply for cancers that are listed as presumptive, and in those cases -- - you can see there are about 38 of those -- once again we turn those around very quickly. The challenge truly comes into supporting VA cases that are non-presumptive, which require a radiation dose reconstruction. And what has been happening is that -- those values haven't come down as quickly as we'd like. But the original cases that came in for rework we are diminishing, but the other newer cases are building up at the same time. And as we look at this backlog, we have to look at a number of things, but one of our great concerns are the oldest cases, getting those done in a timely manner for our veterans.

The cases now are primarily for two cancers.

Most of the other cancers that have been associated as radiogenic disease, and the VA has defined them as that way, and consequently it's primarily only two cancers we work on for dose reconstruction. As you can see, they're primarily skin and prostate.

What I'd like to move on to now is the analysis of prostate dose rework cases we've had since they -- the ones that were sent back to us after the National Academy of Science study. Since that ***Green Book*** was published we've completed 78 prostate dose reconstruction cases, and in no case did a re-evaluation result in a significant change to the prostate dose. All of these doses -- when we report a dose, we report it within what we call a 95 percent upper bound, and that's per the definition in the Code of Federal Regulations -- were significantly less than the probability of causation dose threshold at the 99 percent credibility limit. We were discussing some of these concepts earlier today. And that is the limits there that are used in the VA making non-presumptive compensation determinations. It would -- it would appear that none of those

cases, those 78 cases, ended up in compensating any of the veterans -- the ones we reworked. It's not totally surprising on those results. Even in ***The Green Book*** the committee that worked it commented that on those cases that would be sent back to us it probably would not change the results. The one caveat they added there was skin cancers might -- might change. In fact, I think I'll show you some evidence where in fact we have seen some changes in skin cancer claims.

I'd like to present the actual raw -- the summarized data to you for what happened when we've analyzed the data that's come back on these reworks. But first I'd like to show you just a break-out -- not the total picture -- and the break-out is all non-Hiroshima and Nagasaki cases. The reason I'm showing just this specific picture to you first was in the earlier days, before ***The Green Book***, when we reported Hiroshima and Nagasaki cases, we simply sometimes -- simply reported the upper bound, and so we didn't have average values in pre-2003. But I think it's important to take a look at what were the results in pre-2003 and

what were they in post-2003. And you can see the average value for these non-Hiroshima and Nagasaki cases in pre-2003 on the average was 0.52 rem. And when we recalculated them, it only went up a little bit to 0.59. In fact, the largest value of any of the cases, when you looked at the extreme large value, was 4.1 rem. When we recalculated it, it stayed at 4.1 rem. What's more important than the average value, though, is the 95 percent upper bound, because that's what the VA plugs in when they do their probability of causation calculation. And there we see it went from 0.91 to 1.37. The largest value that we reported pre-2003 was 5.9 rem, and when we recalculated that, the external component of that was 8 rem and the internal component was roughly 1 rem; it grew to 9 rem. That was the highest value we saw. But to put that in perspective, what the VA looks at is the probability of causation at the 99 percent credibility limit. And referencing the value that's published in ***The Green Book***, exposure at 20 years and a diagnosis at 60 years, that value would have been 33 rem. And so what you have is a situation of the --

the VA has values here, DTRA's reporting value is here. If the DTRA values don't exceed that, the veteran -- the claim is not considered a successful claim and will not end up compens-- no compensation will occur.

If we look at the data that includes the Hiroshima and Nagasaki cases, what happens is the overall average actually decreases because it turns out most Hiroshima and Nagasaki cases, as we've heard today, the veterans went in after the bombs exploded. There was no initial radiation exposure to them, and most of the exposure came from walking through fallout that had already contaminated the earth, and then some resuspension effects. Not in all case, but in most cases the Hiroshima and Nagasaki doses were less than some of the other tests that we saw later on.

But the bottom line is here, for all 78 cases that we've looked at, none of them came significantly close to reaching the dose threshold that the VA needs to reach to actually have a successful claim and then do compensation.

And so we need to look at those values

realistically for both -- from a veteran's perspective and from the government's perspective. Dose reconstruction is expensive when we do these procedures. I sometimes describe some of the cases we do as comparable to a master's thesis. The approximate cost to perform a post-NAS 2003 prostate dose reconstruction is around $9,000. We, right as of now, have outstanding 128 prostate dose reworks we have not gotten to. And if we multiply that value of $9,000 times 128 outstanding cases, that's over $1 million worth of outstanding work.

But what's more important here is that this is an expensive process that's of no benefit to the veteran. Bad news doesn't get better with age. And yes, we could continue doing these cases. But if it's not going to help the veteran, what purpose does that serve? It's simply not useful for the veteran and it's not useful for the government to continue this.

And so DTRA's planned course of action, though we'd like to have input from the Board -- and in fact, I presented this raw data to Subcommittee 1 on the dose reconstruction

subcommittee so they could take a look at it, also -- is to immediately discontinue and minimize our outstanding prostate dose reworks. And I'd like to tell you how we plan on doing that, dependent upon input we receive from the Board here.

The DTRA/NTPR office that I serve as the program manager is prepared to review those 128 remaining prostate dose reworks for any unusual circumstances. There are cases in -- when we look at them, for instance, sometimes on blast wave resuspension cases where -- they are unusual, and those cases still should be worked out fully. So what we will do is we will pull those 128 cases and we will go through them one by one, looking for -- there's a group of -- a technical group reviewing them to see if we can find anything that might cause a significant dose increase. If we don't find any unusual circumstances, the NTPR program is prepared to -- to generate correspondence for the VA, with a copy to the veteran, stating that DTRA stands by its previous prostate dose estimate, but will provide revised upper bound estimates as defined in our policy and guidance manual if

this works to the veteran's favor.
What are those revised upper bound estimates I'm talking about? In response to ***The Green Book***, the NTPR released interim guidance on 16 July 2003 that included upper bound estimating. This has been added to our policy and guidance manual recently. What we do is when we calculate an average dose, we say what is the 95 percent upper bound? We want to be -- we want to be conservative in that estimate, and we apply a factor of three. So for instance, if we calculate one rem as the avera-- as the organ dose, we would then calculate the 95 percent upper bound as three rem, if it was based on external gamma.
Similarly, we apply a factor of six times for external neutron doses, and a factor of ten times to the internal dose estimate for certain (unintelligible) -- most scenarios, with the exceptions of some extenuating ones that we have to do a full uncertainty analysis on.
Moving on to skin dose, the rework results here are different than what we've seen for the prostates. We've completed 349 skin dose reconstruction reworks since ***The Green Book***.

Some of these reworks actually exceeded the probability of causation dose threshold used by the VA in making non-presumptive compensation determinations. And to date, the possibility of a rework -- and this is the one disease, the one radiogenic disease that we review actually that depends upon skin color. There's a different dose threshold whether you have black skin or white skin, for instance.

But if we take -- in the case of when we look at these values, people with black skin actually have lower dose thresholds for skin cancer. And so if we use those values, which would be the more favorable values to the veteran, what we would see is the -- that approximately 11 percent of the basal cell carcinoma cases we've done would -- would have the possibility of receiving compensation, three percent of the squamous cell carcinomas, and zero percent of the melanomas we've seen so far.

Once again here's the raw -- here's a summary of the raw data when we analyzed it. In this case it's a little more complicated than the prostate dose. Instead of two columns, now we

have six columns. And that's because skin cancer -- when we look at the values -- is actually broken into three components. One is -- that we've heard about today, is basal cell carcinoma. Second one is the squamous cell carcinoma. And then the third one, the melanoma one that's more dangerous because it's more frequently fatal, we see less cases. In fact, when you look at the frequency of this disease, the majority of cases in this country are basal cell carcinomas. They go up to like 90 percent of the cases.

What we saw, once again for -- looking at non-Hiroshima and Nagasaki cases where we had both the pre and the post-2003 values are that the average values have increased more here. But even more -- more of an increase has been with the upper bound 95 percent values. And what's driving here is actually the uncertainty. It's harder to measure the beta dose that comes in this particular measurement, and so that -- that raises our uncertainty values and brings them closer to the dose thresholds that the VA uses.

And in fact, I've highlighted the three cases

once again in green. Those -- that's the important data. When we redid the values from -- in the case of basal cell carcinoma, the highest value we saw pre-2003 was simply 18 rem. Now the highest value is 372 rem. And if you compare that to a PC at 99 percent, there it's either 4 rem if you have black skin, or ten rem if you have white skin. It greatly exceeds, in that one particular case which is the highest case, the PC value. And that would lead to a successful claim for a veteran. Similarly for squamous cell carcinomas, there was at least one case where -- there was more than one, but just a few cases where it actually exceeded the PC at 99 percent.

But in the case of melanomas where we only had five cases from pre-Hiroshima and Naga-- non-Hiroshima and Nagasaki cases, none of those exceeded the PC value upon recalculation.

And when we throw -- when we add all the Hiroshima and Nagasaki cases in there, since the doses were lower in general there, once again it didn't affect any of the values in the green areas there. There's still -- those values -- the highest values came from non-

Hiroshima and Nagasaki cases.
And so the conclusion that I believe is valid to draw from this is that although skin dose reworks are expensive to perform, due to the uncertainty associated with beta dosimetry it is possible that a rework can result in a VA non-presumptive compensation award. And then I -- I feel it's appropriate, therefore, to continue to perform these skin dose rework cases.
I'd like to move on to quality assurance over the last year, in 2005, what we've been doing. One item was we achieved certification through our integrated product team at the NTPR -- team for ISO certification in 2005. That's valid for three years.
We also carried on continuous independent technical reviews of our dose reconstruction process and technical basis documents performed by a group at SENES Oak Ridge, reviewing what we do in general for the validity of it.
And finally the VBDR has been busy with us on arriving at our facilities, reviewing our data. The DTRA/NTPR program has hosted, since the last meeting in Tampa, Florida, reviews by

Subcommittee 1, the dose reconstruction; Subcommittee 3, the quality management group; and we've provided input to Subcommittee 4, the communications group.

Quality assurance most recently, just here in 2006, is we have also modified our policy and guidance manual. One reason we have is because of that backlog that you -- I showed to you earlier, we are bringing on new groups of physicists and engineers to help us reduce that through multiple contract teams. When you bring on multiple teams you need to ensure your guidance is even clearer than if you just had one team. And so we're revising our policy and guidance manual to clarify our policies for multiple teams to help us reduce that backlog. We also envision, by bringing multiple teams in, that increased competition will eventually accelerate the NTP backlog reduction. And also, to some extent there's -- though there's competing things, hopefully reduce that very expensive $9,000 per dose reconstruction. However, it is critical for us when we bring on multiple teams to ensure that we have consistent work output across all of the teams.

What about veteran communication activity over the last calendar year, in 2005? This was an area that in *The Green Book* was critical of the Department of Defense's program. We weren't communicating appropriately with our veterans, they felt. We could do more of that. In fact, after *The Green Book* came out we instituted new procedures. One of them was what I showed here at the bottom of the slide, this Scenario of Participation and Radiation Exposure, or SPARE. We try now in our dose reconstruction cases to spend more time on the phone, more time with the letters, talking to veterans, trying to understand -- to a much greater extent -- what -- what they were doing, where they were during the atomic tests and the scenarios. And in fact, during 2005 we did -- over 3,700 phone calls were made and we -- we brought on line specifically just one person just to be calling the atomic -- our -- our customers to -- with regards to that, 20 percent of those more than 1,100 phone calls he made in 2005 were for administrative information, 30 percent were initial follow-up calls, 50 percent were on these SPAREs, these scenarios of participation

and radiation exposure.
We also finalized more than 500 individual veteran SPAREs in 2005. In finalizing this procedure -- we get input from the veteran, we do research, we look at a lot of records. We'll write up what we feel is his -- is this veteran's participation. Then we send it for the veteran for a final quality check. Approximately 70 percent of those veterans responded in less than 30 days. Another 20 percent of those veterans took up to 60 days. And of the SPAREs we sent out to the veterans, over 88 percent of the veterans agreed with the SPAREs. Approximately 12 percent of the time they had extra comments or they disagreed with it, and hopefully we could pull those comments in to reflect -- giving the benefit of the doubt to the veteran -- what they were exposed to, where they were at the time of the blasts. What feedback did we get from the veterans during these contact calls? Well, in fact, this has been one of the positive areas in our program. Veteran said that the initial information -- for instance, this -- these are quotes -- that he received from operation fact

sheets and questionnaires were very helpful. One veteran's widow appreciated the SPARE. It was the first time anyone had given her such detail of what her husband had done. She appreciated talking to an individual, not an automated system.

One veteran was surprised by all the details in the SPARE, many of which he'd forgotten.

And finally, one veteran said he appreciated the contact call to make sure he had received his SPARE.

What is the road ahead for this program? Well, our number one priority continues to be serving the veterans. At the next VBDR meeting I need to report back to the Board what the status is of an applicable item that was what we call the Department of Defense/Department of Veterans Affairs 90-day report back to Congress that was mandated by public law. We said we had a program to get well within about two years. With a number of -- in a number of months, by the time we have the next Board meeting, we'll be reaching that two-year period. I need to report back with formal results where we are.

And finally, I do look forward always to the

Board's input and assistance in approving the Department of Defense's NTPR program.

VICE ADMIRAL ZIMBLE: Thank you very much, Dr. Blake. That was very, very informative and I appreciate the update on where you are in the process.

BOARD MEMBERS QUESTIONS AND DISCUSSION

VICE ADMIRAL ZIMBLE: I -- I have one question. I -- first of all, I think your logic for the -- - for -- for modifying the prostate dose reconstructions is unassailable. It's -- it's very logical and -- and at -- at the conclu-- at -- before we conclude this meeting today we'll -- we'll -- I'll ask for a -- for a consensus vote from the -- from the Board. But I do have a question. It looks like you could apply that same logic to the squamous cell carcinoma, although you can't -- you can't do it for the basal cell. And -- and what I heard earlier this morning suggests that you may not be able to do it for melanoma. But for the squamous cell, it seems that you might be able to do that by exception, as well, when you have a -- a SPARE that would be suggestive of a significantly higher dose. So I would ask you

if you would be willing to consider making the same modification you're going to make for prostate for squamous cell carcinoma.

DR. BLAKE: What I'd like to do, Admiral, is take that for consideration --

VICE ADMIRAL ZIMBLE: Okay.

DR. BLAKE: -- and get back with you on that. The only thing I would mention for the squamous cell cases is that there's -- there's not as many of them.

VICE ADMIRAL ZIMBLE: Right.

DR. BLAKE: And it may not have quite as big an impact, but it's certainly something that we should look into and follow up, and we'll take that for action, sir.

VICE ADMIRAL ZIMBLE: Right, okay. Thank you very much.

I would ask -- I don't see any -- any Board members have any comments or questions? Yes, sir.

UNIDENTIFIED: (Off microphone) (Unintelligible)

VICE ADMIRAL ZIMBLE: Okay.

UNIDENTIFIED: (Off microphone) (Unintelligible)

(Whereupon, a number of the Board members simultaneously requested the speaker use the microphone as he was otherwise unintelligible.)

VICE ADMIRAL ZIMBLE: And if you could excuse me just for a minute, please -- Dr. Vaughan, I understand you're back on line?

DR. VAUGHAN: Yes, I've been on line, yes.

VICE ADMIRAL ZIMBLE: Okay, good. We appreciate hear -- getting some input from your -- from your dog that was --

DR. VAUGHAN: Oh, a neighbor's dog.

VICE ADMIRAL ZIMBLE: (Off microphone) (Unintelligible) welcome you back and (unintelligible) understand you had some comments you wanted to (unintelligible) -- (on microphone) I understand you have some comments. Do you want to make those comments now?

DR. VAUGHAN: I have comments. You were talking to me?

VICE ADMIRAL ZIMBLE: Yes.

DR. VAUGHAN: It was about a larger issue --

VICE ADMIRAL ZIMBLE: Okay.

DR. VAUGHAN: -- and just some of the potentially controversial suggestions that have

been made.

VICE ADMIRAL ZIMBLE: Okay. If you don't mind, we can hold off on your comments until the conclusion of these two presentations, the one --

DR. VAUGHAN: That's okay.

VICE ADMIRAL ZIMBLE: -- Dr. Blake's and the subsequent presentation from Mr. Pamperin.

DR. VAUGHAN: Okay.

VICE ADMIRAL ZIMBLE: Okay. Now we do have a question from the floor. Go ahead.

MR. CONTRERAS: Dr. Blake -- again, Carlos Contreras -- how do you, sir -- of course we've been getting letters from you directly, you know, on dose reconstructions so we know your name pretty well. Now in the conclusion of your dose estimate on veterans, that -- for ships, none of the personnel had dose -- dosimeters. Okay? Badges. And some of us were issued a -- dose meters. They carried them in a cigar box. They gave them out to the personnel. When they collect them, put them back in the cigar box. We have a ship that has a wash-down. You have personnel that gets sick. Then the government states that you all

went in to get X-rays and you were given a physical, which is not so. And what happens to a person like myself that soon as I get out of the Navy I get married, then I end up in the hospital and I lose 42 pounds. They can't find what's wrong with me. And then I have severe arthritis, my kids have severe arthritis and they lose their hair. So -- and even now the hospital, I get to where -- a point where I would walk and then I'd lock up with a lot of pain. Then I come up with -- I don't know how long I had prostate cancer, but prostate cancer, they say okay, you didn't have enough dosage. In my conclusion, I was only -- probably about two and a half miles from ground zero, so I don't understand where the dose comes to for all these veterans. I mean, to me, it's -- it's not -- they're trying to make it scientific. It's not scientific because how can you reconstruct the dosage from a veteran that you don't have data on, only what he reports?

VICE ADMIRAL ZIMBLE: Okay. Let me -- let me just try to clarify some -- some issues. I'm not sure I'm going to make you happy, but there

are a lot of people that have prostate cancer. As a matter of fact, almost every male, as they age, will develop prostate cancer --

MR. CONTRERAS: Excuse me, sir --

VICE ADMIRAL ZIMBLE: Let me finish, please.

MR. CONTRERAS: -- I asked the question --

VICE ADMIRAL ZIMBLE: Okay.

MR. CONTRERAS: -- from --

VICE ADMIRAL ZIMBLE: I understand. His expertise is -- is in dose reconstruction and in radiation. But I just want to address a larger issue for the -- for the sake of the audience. And that is that there are many people who have never been exposed to any excessive ionizing radiation that have developed cancers. We can't always decide whether or not there was a cause that was related to ionizing radiation. So we use the scientific method, and the scientific method which gives you 50 percent probable cause, and then we extend that -- we give you every benefit of the doubt. We overestimate the doses that we can calculate, based upon many good, solid facts. But we'll never -- never, in some cases -- achieve a dose that's going to

be -- that's going to meet your requirements. It just isn't going to happen. It wasn't there.

The answer is to do something other than dose reconstruction for consideration for other types of -- of situations, such as the 21 presumptive cancers. Now -- but we have -- by law, we have no choice but to look at every condition, try to decide whether or not there's a potential for radiation to have been a causal factor, and then try to decide whether or not it's a -- it's over 50 percent -- or 50 percent or above probability that the -- that the condition was due to radiation. That's the law that we have to live with. And that -- we'll look for ways to make recommendations to policy-makers, to the agencies for things that may expedite and benefit the veterans. But I don't think you're ever going to get the answer that you want to hear when it comes to prostate cancer and when it comes to some of the other non-presumptive conditions.

MR. CONTRERAS: I -- I understand that. We have --

VICE ADMIRAL ZIMBLE: Right.

MR. CONTRERAS: -- never had an answer, sir.
VICE ADMIRAL ZIMBLE: Right. Okay.
MR. CONTRERAS: We're still waiting for the answer.
VICE ADMIRAL ZIMBLE: Okay. And that's the one thing we can do is try to expedite getting a claim -- getting a claim processed and back. That's exactly what -- what Dr. Blake wants to do is expedite the process of -- of getting claims back. It shouldn't take two or three years. It just shouldn't.
MR. CONTRERAS: Okay. Now you've answered my question as far as like -- or close to -- in other words, you answered me. Right?
VICE ADMIRAL ZIMBLE: Okay.
MR. CONTRERAS: But I'm asking Dr. --
VICE ADMIRAL ZIMBLE: Okay, all right.
MR. CONTRERAS: -- Blake the question.
VICE ADMIRAL ZIMBLE: Okay.
DR. BLAKE: Admiral, I'll take over for a second. Ideally we do have film badge data, but that doesn't help in a lot of cases. And probably in your case, sir, we may not have had film badge data to start off with. But we do have other empirical data.

During these tests, for instance, we had radiation monitors that went around with, as some people mentioned, Geiger-Mueller tubes and measured data. We also had stations that collected and measured radioactive fallout. We had planes that flew through and measured it, too. We also had measurements when they were actually -- from these weapons where they measured what they called the source terms. They took pictures -- for instance, they could determine what the kilotonnage or megatonnage -- for instance, there was two or three methods of determining that. So we do have a number of parameters of -- that measured and gave us a concept of what type of radiation exposure people received.

But there's still a number of assumptions that go into it, and there's -- there's no getting away from that, and that's accom-- there's uncertainty associated with our best measurements. And so when we report that value to the Department of Veterans Affairs, that's why it's called the dose reconstruction, there's always going to be a plus or minus with it. And some types of measurements we make

that we report -- some values that we report to the VA have much bigger plus or minus values associated with them.

MR. CONTRERAS: Thank you.

DR. BLAKE: You're welcome, sir.

VICE ADMIRAL ZIMBLE: Yes, Dr. (sic) Beck -- Dr. Beck.

MR. BECK: I just wanted to point out that Dr. Blake did present his arguments to Subcommittee 1, and we're going to report on it tomorrow so you might want to wait till tomorrow for the Board to consider this after we tell you what our conclusions were.

VICE ADMIRAL ZIMBLE: Okay. I can go along with waiting until tomorrow, but I did promise Dr. Blake that we would give him something timely. Tomorrow is timely enough, I'm sure, for Dr. Blake. Thank you.

Okay. Dr. Boice.

DR. BOICE: Paul, I just had a question on the workload of new non-presumptive cases that come to you each month for prostates and skin cancer. I was just curious on the number. Is it tens each month or hundreds each month?

DR. BLAKE: No, it's on the order of about --

it goes up and down, but on the order of about 30 non-presumptive cases coming in per month.

DR. BOICE: And then a follow-up question -- oh.

DR. BLAKE: If I could, the values are actually slightly higher, but some end up going back to the VA, so it's truly more like 30 effective cases coming in per month.

DR. BOICE: And then do you see the presumptive ones at all? Do we have a comparable number of knowing each month how many presumptive claims come in?

DR. BLAKE: We do, and I can provide a break-out for you that would perhaps give you the details. But once again, we turn around the presumptive cases much quick, and so they -- they don't reside in my -- my group for those long periods of time. They -- hopefully we can turn those around in a period of, at most, a few months.

What we end up doing for the presumptive cases and the non-presumptive cases is the first step is we try to verify that the veteran was actually at that test. And the military kept excellent records back then, so we go to places

like the National Personal Records Center where as veterans our -- our service record and our medical record would retire to, though there are some problems there. Some Army records did burn up. But we go to a lot of the other facilities, such as the National Archives. A number of places that our veterans in our population mentioned today include like the Navy Archives, the Marine Archives, the Air Force/Army Archives. We really do an extensive search for veterans' records and I believe we're -- we're very successful in many cases in getting that data. I think that's one of the better parts of the program that we actually support.

VICE ADMIRAL ZIMBLE: Okay. You -- you would like to make a comment?

DR. KOCHER: Yes, my name is David Kocher from SENES Oak Ridge. Because of the imminent discussion about the prostate cancer situation and Dr. Blake's proposal, I think the committee should be aware of that this famous 33rem number is not right. We had apparently a quality assurance problem on the Academy committee. For age at exposure of 20 and time

since exp-- age at diagnosis of 60, the number is closer to 65 or 70. If you are 18 years old at time of exposure, it's more like 55 to 60. All the other numbers in that table are correct, but the number for prostate cancer for IREP turned out to be wrong, for whatever reason. And in fact this bolsters your argument because it widens the margin between actual doses and what it takes to get compensated. But I think you should be aware that 33 rem is not the right number.

VICE ADMIRAL ZIMBLE: Okay. Thank you very much.

DR. BLAKE: I would point out that Dr. Kocher has made most of those calculations for us over the periods of time. The reason I referenced the 33 rem value is that's what's actually reported in the National Academy of Science study. But as he pointed out, even if that value is wrong, it went in the direction that made the argument even better. You can look at other ages besides being irradiated at 20 and developing at 60. And even in the most extenuating circumstances, the lowest value that's been calculated has been 21 rem, which

still is -- is much greater than the doses we actually see. So the -- the data, as Dr. Kocher points out, even greater supports what's there. But I wanted to reference the actual *Green Book* as a peer-reviewed publication, and that's the one reason I quoted that value. It is a conservative value.

VICE ADMIRAL ZIMBLE: Okay. Thank you very much. Dr. (sic) Groves.

MR. GROVES: Paul, you had been asked the question by John about the number of presumptive cases and -- and I just wondered if you -- I know that you don't have much to do with them other than the verification piece. But just as a feel for the number of cases coming into the system, can you share the monthly number of the non-- of the presumptive cases?

DR. BLAKE: It's still going to be on the order of what I was quoting there, ten, 20 or 30 cases. I -- I can get exact numbers for the Board --

MR. GROVES: No, no, I mean whether -- whether it's three, 30 or 300 would be my -- my interest.

DR. BLAKE: Let's go for 30.

MR. GROVES: Okay, that just puts it in perspective. Thank you very much.

VICE ADMIRAL ZIMBLE: Any further comments?

(No responses)

Okay. Thank you very much -- oops, oops -- yes, sir?

UNIDENTIFIED: (Off microphone) (Unintelligible)

VICE ADMIRAL ZIMBLE: Dr. Vaughan has got some general comments that she wants to make at the end of the session.

Okay, let's -- thank you very much, Dr. Blake. Mr. Pamperin, you're on.

A BRIEFING ON VA RADIATION CLAIMS COMPENSATION PROGRAM FOR VETERANS, AND VA QUALITY ASSURANCE MANUALS

MR. THOMAS PAMPERIN

MR. PAMPERIN: Thank you, everyone, and good afternoon. I've been asked to talk about the VA's quality assurance program. What I'm going to present today is the general quality assurance program that does not speak specifically to ionizing radiation. At the back end there is a slide that talks about issues of ionizing radiation.

VA's quality assurance program basically is a multi-dimensional approach that includes second and third signature on various kinds of awards, procedural guidance through both our procedures manual and our -- which is M21-1 -- and our management manual that specifically lays out what a quality assurance program for the entire administration of CMP benefits is, and with consultation with the CMP services. When regional offices have questions, they forward them to my staff and we provide them with guidance on specifically what they should do. Our quality review consists of individual performance and national accuracy. Individual performance is conducted at the regional office level by supervisors or individuals specifically designated to do quality review. Typically this will mean that each individual in the regional office will have probably between 150 and 200 of their actions reviewed annually for their performance standards. At the national level, at central office in Washington and in a satellite activity in Nashville, Tennessee, we conduct a comprehensive quality review of approximately

6,000 decisions a year for purposes of determining quality. This quality level is sufficient to give an accuracy rate for each regional office, but it is not sufficient to give individual performance.

Again, on individual performance we have what is called second signature. For a variety of decisions it's necessary for a second person to take a look at the decision and to concur in it. Each individual in a regional office, as part of the performance standards, has a quality measure. And that is then monitored through these monthly quality reviews. Should somebody's quality fall below those numbers, they are given training. If they persist, they can be put on an improvement plan. And at the end stage, if they can't do it, they're put on 100 percent review, which usually results in bad things for the employee.

And on our national accuracy, six years ago the Veterans Benefits Administration adopted a program called STAR, which stands for Statistical Technical Accuracy Review, and it is the most rigorous -- as nearly as we can determine -- quality review program of any

benefits delivery system in the country. We looked at the Department of Labor, OPM, Social Security, Railroad Retirement and other agencies that do similar kinds of things to VA. There is no other agency that looks at as many actions. In fact, most agencies do not even look at individual performance. But it is a very large activity through which the Compensation and Pension Service dedicates six-- just over 60 employees annually checking quality, in addition to the employees at the local regional office doing it for individual performance. It is statistically valid at the station level, but it is insufficient for specific issues.

When we talk about quality review for VA, we cannot say that our quality is X for a radiation case, or for back conditions. We are looking at overall quality rather than specific issue quality.

Now this number is a little disconcerting, but in 2005 our core decision disability decision rating accuracy was 85 percent. What does that mean? When we look at core rating accuracy, we consider a number of things. We look at the

appropriateness of service connection, yes or no; the appropriateness of the evaluation, whether it's zero, ten, 30, 100 percent; the appropriateness of the effective date; and certain mandatory legal requirements in terms of development and notifications to veterans. In 2005 we had a core accuracy rate of 85 percent. Of that 15 percent error rate, three percent involved errors in payment. The balance of the errors were things like notification errors or certain kinds of development things that, while they're critically important, do not actually affect the actual payment. They're more legal requirements than -- than decision requirements.

We also do specialized reviews. When an issue comes up -- and these come up every year -- if a concern is expressed, my staff and the STAR review staff will conduct a large-scale review of a particular topic. For example, a number of years ago as we began to see more and more female veterans, we did large-scale quality reviews of female medical issues.

We, for example, currently are conducting a

number of reviews regarding certain entitlements that we have with respect to individual unemployability and some mental disorders.

When we do these, we thoroughly look at the entire case and develop specific kinds of recommendations -- what was wron-- our reviews in those areas, we tend not to -- to change decisions if they were favorable for veterans, only if they've been unfavorable, but to collect information for better training.

We have also put a major effort into looking at the consistency of our decisions across regional offices. There has been some criticism and some belief that you don't get the same answer in every regional office. We have looked into that. There've been a number of newspaper articles about that. And we have developed an ongoing process now to look at consistency.

What we have discovered so far in that examination is that actually it appears we are fairly consistent. But when -- when we do these studies, we -- we take cases that decision-makers have made, and have two other

people look at them without seeing the rating to see if they come up with the same decision or one that's reasonably close.

The problem that we find is that when -- when second and third reviewers disagree with an original decision, the reasons for the disagreement tend to be very varied; that the second and third reviewers frequently don't identify the same issues as being why the decision was wrong. And then we'll bring in a fourth reviewer who will usually end up saying that both of the objections were correct, you know, that there was something wrong. When we've asked VA's -- Veterans Health Administration's research arm to take a look at this, their reaction to it is that it just -- it speaks to the level of complexity and the number of different issues that are involved in the evaluation of every -- every case.

The problem of course is that at the present time our initial studies, while they point to when there's disagreement that there are multiple reasons for disagreement, we haven't yet done enough of these to identify all of the possible variations. But we are looking very

closely and have established a consistency program to look at at least one major body system or one major topic every year. Given the resources we have, we can't really do more than one since these are fairly intensive looks where we will look at anywhere from 1,000 to 1,500 cases to try and identify what is going on.

What are the issues in quality management, the issues that go into making a 15 percent error rate? Our local compliance with the Veterans Claims Assistance Act, which is an Act that requires that we give specific information to veterans about what kind of information they're expected to provide, what we will get, and basically a broad basic understanding to the veteran of what is necessary to establish service connection. When we have deficiencies in veteran’s claims assistance, it is usually in that the letters that go out leave out one of the conditions that the veteran might claim. We find today that -- to put this into perspective, this year we will do about 825,000 disability determinations. Of those, about 200,000 will be original compensation claims.

About 100,000 of those will be from veterans coming off active duty this year, and the other 100,000 will come from people who are multiple years post-service. We to this day continue to deal with initial compensation claims from veterans from World War I (sic) and Korea and Vietnam, and the original claims for -- particularly for people coming off active duty today, 18 percent of all of the original claims we deal with, are cases where the veteran has claimed eight or more disabilities.

When people are claiming that many disabilities, it is difficult to make sure that every single disability is claimed in the veteran's -- or recited in the veteran's -- in the VCAA notice and that in fact that they're all decided. It is a problem that we are dealing with, trying to track to make sure that every single condition does get covered. But the complexity of claims is getting much higher these days.

Again, consistency in decision-making. There have been a series of newspaper articles and a -- an IG audit as a result of them that point to the fact that if you live in the six states

that we -- we publish what the average annual compensation rate is in every state, and the difference between the top six states and the bottom six states in terms of dollar value is about $5,500, which is a pretty substantial difference.

We've looked into that and we've found a number of reasons for it. And for those of you who are veterans in the audience who have active claims, I will tell you that one of the things that we have found and that the IG has calculated is that veterans who pursue claims on their own, without the assistance of a service officer or of some other professional, will on average receive a disability evaluation that's about $1,200 a year less than somebody who's represented.

Also if you're an older veteran. World War II veterans tend to have -- not to have gotten an initial evaluation and not come back. If you're a military retiree, you tend to get higher compensation than if you're not. I think that can be easily explained by the fact that military retirees have more service-connected disabilities than somebody who was in

for two years.

Other quality issues, and one that speaks directly to radiation, is proper and timely development. As Dr. Blake indicated, we get about 30 non-presumptive -- or presumptive dis- - non-presumptive disabilities a month, and they get a number of presumptive participation cases. But they also get a number of participation -- of presumptive disabilities where we've asked for reconstructed dose. The issue with ionizing radiation is that the population is so small that individual rating specialists -- we have about 1,200 rating specialists in our system and we handle about 600 radiation cases a year, generally. So the chance of an individual rating specialist actually even seeing a radiation case is only about one in every two years. There is -- I think it is fair to say -- a problem in that initial development of radiation cases because people aren't familiar with it, it takes them a long time to do that, and I think this Board has been talking about how that can be addressed. But the initial development of radiation cases is a problem for VA.

The ultimate decision from a VBA perspective is not. Once the development is accomplished, if -- if it's a presumptive disability and participation can be demonstrated, the ratings are very, very straightforward. I am unaware of any case where we have denied a presumptive condition.

On the other hand, if they are ones that require dose estimates, the real decision -- the decision about service connection -- is actually done by Veterans Health Administration in that they take the information that is provided by DTRA, use the IREP model to determine whether or not the probability of causation is such as to tip you to it's as likely as not, and based upon that letter it's either yes or no. And then we proceed to do the evaluation. For most radiation cases, what we're dealing with is active cancers, and active cancers are 100 percent. So it's -- from a claims processing perspective, it's -- it's fairly difficult to make a mistake in terms of the actual decision. Where it is possible and too -- too frequently common to make a mistake is in the initial development of

that case, which drags it on longer.
The issues in radiogenic disease quality are a lack of volume at the local regional office level, improper referrals to DTRA, and extremely lengthy process. The ultimate decision, though, in radiation decisions are of high quality, in that while a number of them get appealed, they are not normally -- and sometimes they're remanded by the Board of Veterans Appeals -- they are rarely overturned. And our reviews, although our national reviews don't -- I said earlier do not -- cannot address specific disabilities, I did have people go through our STAR reviews in the last two years to see if we had had any radiogenic diseases, and we had no errors identified at all in that area.
That basically is VBA's quality assurance program. It is one that is designed at the individual performance level for employees and at the national level. We are not satisfied with our quality levels at the present time. We believe our actual ultimate decision-making is correct, but that in the process of getting there, there is substantial room for

improvement.

BOARD MEMBERS QUESTIONS AND DISCUSSION

VICE ADMIRAL ZIMBLE: Thank you very much, Tom. I appreciate the presentation and I applaud the VA for taking on the issue of quality assurance and quality control and quality management. And the fact that you're doing the measurement is certainly a terrific step in the right direction.

MR. PAMPERIN: I do have -- there were two questions from the field that -- up on the floor that were asked that I'd like to address. One of them is -- expresses a concern that we heard from a couple of people here about possible disabilities for dependents as a result of exposure to radiation. And the question was how does a dependent of an atomic veteran submit medical records for review. The short answer to that is, you don't.

The -- under Title 38 there is only one -- or actually two groups of children -- of dependents for whom compensation can be paid based upon a theory of genetic transmission. For Vietnam in-country veterans who father or

conceive children after their service in Vietnam and those children develop spina bifida, there is a specific benefit program for those children. For the approximately 5,500 women veterans of in-country Vietnam service, the conception of a child post-Vietnam service that has a number of other birth defects, those children can be compensated in a manner similar to the spina bifida.

We currently have -- I believe it is about 350 children getting compensation for spina bifida. The female veteran population, because it is so small, they're -- I don't know the exact number, but the -- the number is less than 20 children are getting benefits through that program.

So there is no capacity under current statute for VA to handle claims of potential disability due to exposure of the parent.

The second question that was raised was regarding updating of the IREP model, and Dr. Land had indicated that no one had asked to have it updated based upon BEIR VII, and Dr. Preston indicated that they were going to suggest that it was. And the question is will

the VA ask that it be updated.
I'm not in a position to make a comment on that. That would be a medical decision by our Veterans Health Administration. I will certainly bring that back and ask. I would again point out, however, that as was suggested earlier, enhancements of IREP based upon BEIR VII would probably work to the disadvantage of veterans because of greater experience.

VICE ADMIRAL ZIMBLE: Okay. Thank you very much. Wait -- first, Dr. Boice.

DR. BOICE: Tom, just a clarification on the benefits. If an atomic veteran died of a presumptive or -- disease, is it true then that the wife or the spouse would receive no compensation?

MR. PAMPERIN: No, no, I didn't mean to imply that.

DR. BOICE: I -- I was clarifying that, so --

MR. PAMPERIN: Yes, a -- a wife will -- if they die of a service-connected condition, or even if they don't, if the veteran was 100 percent disabled for ten years prior to death, or if they die within five years of separation from service and were rated 100 percent entirely

during that period of time, or if they were a POW and were rated for 100 percent for one year prior to death, their surviving spouse would get DIC.

I will point out that the -- the review that was mandated by Secretary Principi of about 13,000 cases that result in about 1,200 going to DTRA did result in a number of both veterans and widows being awarded compensation or DIC. What happened in those -- without referral to DTRA.

What happened in those cases is that when the RECA statute was expanded there were five cancers that had been on the -- the non-presumptive list that RECA put on their list as being presumptive and warranting payment. And Secretary Principi had made a decision that veterans would not be disadvantaged compared to civilians, and therefore he directed that those particular disabilities be transferred based upon a recognition of RECA to the presumptive list.

And when we went back and looked at cases that had been previously denied because of DTRA dose assessments, we were able to grant service

connection, particularly for lung cancer, in several cases.

MR. GROVES: You had mentioned that there were about 600 radiation claims per year -- or is that the number of those related to the atomic veterans community or does that include the other claims for radiation-related injuries or diseases?

MR. PAMPERIN: When we talk about 600 a year, it's -- we're pretty much basically talking about those where we're -- there's potential DTRA involvement. Specifically -- now we don't refer every case to DTRA for participation. If there is a quality of evidence that clearly indicates that a person was a participant, we can proceed with a presumption without getting verification.

There are a small number -- we don't really track it that closely, but there are a small number of occupational cancer -- or claims every year. I saw a couple the other day dealing with people who were radiology technicians from World War II when the exposure rates were fairly high. But generally speaking we will get some from submariners and radiology

techs and other kinds of people, but the number is fairly small.

MR. GROVES: Thank you very much.

VICE ADMIRAL ZIMBLE: Dr. McCurdy.

DR. MCCURDY: Tom, you have this, quote, indicator of accuracy in decision.

MR. PAMPERIN: Uh-huh.

DR. MCCURDY: Now do you have any performance goals or indi-- performance goals related to timeliness or turnaround time of case --

MR. PAMPERIN: Yes --

DR. MCCURDY: -- (unintelligible) issues?

MR. PAMPERIN: -- in fact, in the annual budget -- matter of fact, the one that the President will discuss next week -- we have a number of performance indicators in the CMP* business line, about five or six of which are what are characterized as critical. One of those is quality of decision-making. Another one is what we call average days to complete. Our current objective is to have an average days to complete for all rating-related actions of 145 days. Our strategic goal is to get to 125 days.

I'll tell you that the actual performance in FY

'05 was about 176 days for all cases. Now some cases go much, much faster than that. But it was -- it was, on average, about six months.

VICE ADMIRAL ZIMBLE: Okay. You have another question?

DR. MCCURDY: I'd like to follow up --

VICE ADMIRAL ZIMBLE: Follow-up?

DR. MCCURDY: -- one thing.

VICE ADMIRAL ZIMBLE: All right.

DR. MCCURDY: On the radiation dose cases for compensation, is this a -- is it a multiple process where you have to integrate -- when you do timeliness and quality, you have some people doing some record aspects of it and then you have someone doing the dose evaluation comparison to what the -- the compensatory limits are --

MR. PAMPERIN: Yes.

DR. MCCURDY: -- so you have to integrate all that?

MR. PAMPERIN: Yes.

DR. MCCURDY: And so that complicates the problem, and also with timeliness that would change that whole --

MR. PAMPERIN: Right.

DR. MCCURDY: -- formula, too. Right?

MR. PAMPERIN: Yes, it does. In fact the -- the directors of our regional offices and the service center managers who are charged with delivering the program in each state repeatedly ask us if they can take radiation cases out of the equation because one of their performance measures is average days. Even though ours -- our national goal is turnaround time, cycle time, at the operational level we are less concerned about turnaround time than average days pending because average days pending is a leading indicator. If you can get average days pending down, the cycle time will come with it. And the cases that -- we have resisted their request to have them removed, although we're very sympathetic to them. The age of the cases that involve ionizing radiation, they constitute about 95 percent of our oldest cases in our inventory. And you know, it adds a couple or three days to average days pending, and when you're -- when you're struggling to meet a mark, you know, people are interested in getting that out of there. But we -- we haven't taken it out.

VICE ADMIRAL ZIMBLE: Well, I would say that the Board is going to do everything it can to help expedite that -- that number down. Okay. Okay, we have one -- one question from the -- from the floor. Go ahead.

MR. CONTRERAS: Yes, sir. I would like to clarify something on RECA for the benefit of our veterans out in the field. Now it -- is it true that veterans receiving treatment at the VA hospital, and have received treatment and go to RECA for a claim and they award the claim -- say $40,000, $20,000 or $60,000 -- then RECA will assess them for their hospitalization expenses. And I've heard that some of these veterans get $40,000, so they have to pay the VA the $40,000 because they've been receiving treatment for so long. And being that we are veterans, and there's a lot of veterans that don't know if -- go to RECA or go to -- go to directly to the VA, so -- and that has happened, 'cause I've been told about it and it's -- it's -- in other words, I'd like to clarify that.

MR. PAMPERIN: That's not correct. Okay? Typically the RECA payments are $75,000 and

it's either 100 or 150, something like that. At -- under no circumstance would a veteran be asked to pay back the cost of care. Until last year a RECA settlement was considered an absolute settlement of the government's obligation to any recipient under any program under the law. And what would happen, and what still happens today, is that we get FAXes on a daily basis from the Department of Justice indicating all the people who receive RECA payments. We run those against our system to see if the person is a veteran and if they're receiving compensation. If they're a veteran and not receiving compensation, we put that in their file. If they are getting compensation, until a year ago their benefit that was warranted based upon the condition for which they got the RECA payment was terminated. Okay?

Now if they had other service-connected conditions they would continue to get compensation for those. If there was another basis -- for example, we have some veterans who are both radiation veterans and Vietnam in-country vets, and a couple of the cancers are

the same. So if -- if we granted it based upon Agent Orange exposure and they got the RECA payment based upon radiation, we don't touch those.

Now in Janu-- effective January of 2005 and going back about five or six years they retrospectively looked back and said okay, if you got one of these payments we will put it in our system as an overpayment and we will collect back that part that's attributable to that disability until it's recovered.

Now your basic question about should you go VA or should you go RECA, if you want my opinion, it depends upon how close you are to dying. If you've got a RECA-qualifying condition and you're terminal, I'd take it, because the -- the collection is only against the person who received the benefit. So if you've got a qualifying condition for which you can be service connected and you can get a RECA and you die, okay, you got the $75,000 or $100,000, and your wife comes on and gets DIC without any offsets. So you know, the -- I think you have to kind of look at it in that kind of a cold-blooded approach of what's the payback since

the collection is only against the person who received the benefit.

MR. CONTRERAS: Very good, sir. Thank you very much. At least I can spread it to the veteran community and -- 'cause they're -- they're getting two different angles, so thank you very much.

MR. PAMPERIN: And the other thing I'd emphasize is even if we begin collection on -- even in the past when we discontinued compensation for a RECA benefit, the veteran is still service-connected for that condition and therefore is still -- has always been entitled to treatment for the disability.

MR. CONTRERAS: Understandable. Thank you, sir.

VICE ADMIRAL ZIMBLE: Okay, thank you. That was an excellent question. Appreciate your bringing that to the floor at this time. Okay. Dr. Vaughan --

DR. VAUGHAN: Yeah.

VICE ADMIRAL ZIMBLE: -- we have -- we have completed our formal presentations -- wait, what? Oh, I'm sorry, Dr. Vaughan --

DR. VAUGHAN: Yes.

VICE ADMIRAL ZIMBLE: -- I want you to hold on, be patient just a moment longer. Dr. Reimann has a question.

DR. REIMANN: Tom, in order to work with you and -- and the -- you know, the customers of this Board, the atomic veterans, we would note that through the circumstance, the atomic veterans are such a small part of your total -- your total constituency, that means that the things like the training of individuals and so on to operate within your stations would be a very difficult thing, and has been some discussion -- mostly informal -- of concentrating that within a smaller number of -- of VAROs. That's just an idea that's out on the table.

But quite aside from that, in looking at the -- let's say the further evolution of the quality system which, by complication, means -- refers to your whole VA system, how does the station versus the individual play out in terms of the -- looking at the metrics information, the data coming in, and identifying the factors, let's say, in whether it be accuracy or in timeliness. The way in which the data are

mined, the way in which data are aggregated that feeds into the training system I think would be a very, very important issue. And I'm just wondering how that station versus individual played out because I think you made a specific point about that you're -- you're calculating really at the station level and it's very difficult to get at the individual level in any statistically valid way. So I'm wondering I guess, in terms of the further evolution of your system, how do you see that playing out so that the -- the goals could be backed by reliable information of where the bottlenecks really are? For example, if you have a long end-to-end -- clearly if you looked at the end-to-ends, if that were total work, you multiply the total number of cases you have times that length of time, it's probably three or four times your budget. So it means that things sit along the way, as they inevitably would in any organization. So how does that data get collected and rolled up so that the -- it can be used then to train the next generation of -- of people?

MR. PAMPERIN: The -- until recently it's been

very difficult, if not impossible to roll up the -- the data. What VA is currently operating with in terms of an information system -- I mean the Veterans Benefits Administration. The Veterans Health Administration has a very, very sophisticated integrated computer system. But right now the information system that we have was designed in the early '60s as a payment system when memory was very scarce. So only essential information to justify payment was retained. So it -- it was -- it's difficult to get much information out of the system about bottlenecks.

That is changing. We are in the process now of deploying a re-- a replacement computer system that is functioning, to a very large degree, in two regional offices, and every regional office has had one individual trained. And our target is to be doing all compensation in the new computer system by the end of calendar year 2006.

That system gives us a lot of advantages. For example, our current system that we're paying under can only retain six disabilities. The new system will retain all of the disabiliti--

and does retain all of the disabilities. We do know that our corporate database, the part that does the disabilities itself, that's been fully functional now for about a year and a half. So we've got about a million and a half ratings in our corporate database where we know every specific disability that was claimed and how it was resolved and all these sorts of things. But the replacement system does track folder location, how long it sits at particular cases so that, for example, when it goes back to files that can be reasonably translated into wait time for responses to mail. And I would think that within -- within a year or so, with respect to compensation, we'll have the kind of data -- well, not -- a year after it's fully implemented -- that we can begin to really speak to that in specific detail.

In the past, what we have done is unique samples of 5,000 cases where we will just go in with a data sheet and collect when did we do this and all that kind of thing. The -- so it's difficult under the current system, but with the new computer system I think it's -- it's easier.

And the other prob-- the new computer system as well will enable us to refer individual disabilities, for example. Right now -- when 9/11 happened it was very frustrating for the organization that the New York regional office was closed down for about three weeks. And with Hurricane Katrina the New Orleans regional office just two weeks ago reopened in a suburb of New Orleans that those files were sitting four miles away and they sat there until -- because it was all paper-based. Now, because you can get anything that's happened in Veterans Health Administration in the last five years on line at any regional office by just knowing where the person was treated, and even if you don't know where they're treated you can send out a query and say has this person been treated here, that's getting better. So I think we -- we have spent a lot of time and lot of money trying to upgrade our computer systems that will give us greater information with which to deal.

VICE ADMIRAL ZIMBLE: Okay. One more question from the floor.

MR. CONTRERAS: Yes, I think I'm getting your -

- getting on your nerves.

VICE ADMIRAL ZIMBLE: No, no, you're not getting on my nerves, but we're going to get the hook pretty soon. Go ahead.

MR. CONTRERAS: I understand, sir, but you know, there's questions to be answered, and especially if you like to work with veterans.

VICE ADMIRAL ZIMBLE: Right.

MR. CONTRERAS: One question that I -- and I'd like to know if this Board -- it come from you, a direct question to you, sir, Mr. Chairman, Admiral -- are -- is this -- is this Board going to be dealing with depleted uranium?

VICE ADMIRAL ZIMBLE: No, it -- depleted uranium is not within the charter of this Board --

MR. CONTRERAS: All right.

VICE ADMIRAL ZIMBLE: -- so we will not be doing that.

MR. CONTRERAS: All right.

VICE ADMIRAL ZIMBLE: Okay. Elaine --

DR. VAUGHAN: Yes.

VICE ADMIRAL ZIMBLE: -- Dr. Vaughan, I admire your patience. I certainly hope -- I certainly hope you have a speaker phone so that you don't

develop a decubitus on your -- on your ear, but --

DR. VAUGHAN: No.

VICE ADMIRAL ZIMBLE: -- I -- I'm going to let you make the very last word for this session today.

DR. VAUGHAN: Well, Admiral, I'm -- I had a couple of concerns and some general points to make. I think it will take longer than ten minutes, hopefully for the Board members to interact and discuss some of these issues. It's just stepping back and trying to identify and anticipate points of conflict. And I think it's too important to --

VICE ADMIRAL ZIMBLE: Okay.

DR. VAUGHAN: -- try and rush through the comments right now.

VICE ADMIRAL ZIMBLE: These comments that you have, are they related to subcommittee reports?

DR. VAUGHAN: We could relate them to that, but some are from presentations this morning. I took notes --

VICE ADMIRAL ZIMBLE: Okay.

DR. VAUGHAN: -- since this morning. And then others, I guess we could incorporate them into

a couple of the subcommittee reports tomorrow.

VICE ADMIRAL ZIMBLE: All right, I'd -- I will do this. You'll be first on tomorrow morning, right after the introductory remarks, before we get in subcommittee work.

DR. VAUGHAN: Okay.

VICE ADMIRAL ZIMBLE: We'll -- we'll entertain your comments and open that up for discussion.

DR. VAUGHAN: Okay.

VICE ADMIRAL ZIMBLE: Okay. And you have a -- you have a good evening --

DR. VAUGHAN: Thank you.

VICE ADMIRAL ZIMBLE: -- and we'll -- we'll -- we'll adjourn, unless anyone objects -- had enough fun for today? Okay. Let's adjourn until tomorrow morning at the same time.

DR. VAUGHAN: Okay. Have a good evening.

VICE ADMIRAL ZIMBLE: Right, good evening.

(Whereupon, the session adjourned at 5:50 p.m.)

C E R T I F I C A T E OF COURT REPORTER

STATE OF GEORGIA

COUNTY OF FULTON

I, Steven Ray Green, Certified Merit Court Reporter, do hereby certify that I reported the above and foregoing on the day of January 12, 2006; and it is a true and accurate transcript of the testimony captioned herein.

I further certify that I am neither kin nor counsel to any of the parties herein, nor have any interest in the cause named herein.

WITNESS my hand and official seal this the 12th day of February, 2006.

Steven R Green CCR

STEVEN RAY GREEN, CCR

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