DEPARTMENT OF HEALTH, BUREAU OF RADIATION CONTROL

ADVISORY COUNCIL ON RADIATION PROTECTION

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ADVISORY COUNCIL MEMBERS:

WARREN JANOWITZ, Chairman
ALBERT TINEO
CAROL BONNANO
EFSTRATIOS LAGOUTARIS
KATHLEEN DROTAR
MARK SEDDON
PATRICIA DYCUS
PAUL BURRESS
RANDY SCHENKMAN
TIM RICHARDSON
TIMOTHY WILLIAMS
WILLIAM ATHERTON

DEPARTMENT OF HEALTH MEMBERS:

JANET COOKSEY
JAMES FUTCH
BRENDA ANDREWS
VICTOR JOHNSON
GAIL CURRY
YVETTE FORREST
JERRY BAI

P R O C E E D I N G S

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THE CHAIRPERSON: Good morning.

ATTENDEES: Good morning.

THE CHAIRPERSON: We have full council here today.

I think we should probably start off again by everybody introducing themselves. Go around the table.

DR. LAGOUTARIS: Good morning. I'm Stratis Lagoutaris. I'm a podiatrist in Jacksonville Beach.

MR. RICHARDSON: Good morning. Tim Richardson. I represent the Florida Society of Radiologic Technologists.

MR. SEDDON: Mark Seddon. I'm a medical physicist. I represent the -- public --

MR. BURRESS: Paul Burress, health physicist, representing the Florida Chapter of Health Physicians.

MS. DROTAR: Kathleen Drotar. I'm the radiologic technology therapy member, and I work at Keiser University.

MS. COOKSEY: Janet Cooksey for the Bureau.

MS. ANDREWS: Brenda Andrews with the Bureau of Radiation Control.

DR. SCHENKMAN: Randy Schenkman, radiologist, now retired.

MR. FUTCH: James Futch, Bureau of Radiation Control.

MR. JANOWITZ: Warren Janowitz, nuclear medicine physician, Baptist Hospital, Miami.

MR. JOHNSON: Victor Johnson, director of the Division of Emergency Preparedness & Community Support.

MR. BAI: Jerry Bai, field operations for Bureau of Radiation Control.

MS. FORREST: Yvette Forrest, Bureau of Radiation Control, radiation machine program.

MS. BONNANO: Carol Bonnano, representing the Florida Nuclear Medicine Technologists.

MS. CURRY: Gail Curry, medical quality assurance. We do the licensing.

MR. WILLIAMS: Tim Williams, Oncology, Boca Raton, Florida Radiologic Society.

MS. DYCUS: Patty Dycus, registered radiologist assistant.

MR. TINEO: Albert Tineo, Halifax Medical Center in Daytona Beach.

MR. ATHERTON: Bill Atherton, chiropractic radiologist in Miami.

THE CHAIRPERSON: Well, thank you all for being here. I guess the first order of business this morning is the approval of the minutes from the last meeting.

Has everyone had a chance to look at that? Do we have any corrections or changes?

(No response.)

MR. WILLIAMS: Move to accept.

THE CHAIRPERSON: Second?

MS. BONNANO: Second.

THE CHAIRPERSON: All in favor?

EVERYONE: Aye.

THE CHAIRPERSON: Okay. I guess we can move along relatively quickly.

Janet Cooksey?

MS. COOKSEY: Good morning. Cindy couldn't be here today, so she asked me to give you a couple updates.

The two biggest ones are: We hired two administrators. The radiation machine administrator is Yvette Forrest, and we've got the time later on the agenda for her to go into her background.

And the administrator for our field operations and training and quality assurance is Jerry Bai. And he'll be also giving us more updates.

We also have with us Victor Johnson, our division director. And we moved into -- with the reorg last year, we moved into the new division, and he came on as director.

Do you have anything you want to say, Victor?

MR. JOHNSON: Good morning. This is the first time I've been able to make it to advisory council meeting. Thank you for letting me join you. And I'm hoping to learn a lot today, and I'm sure ....

MS. COOKSEY: The other thing, if you look, we have the org chart which just shows those changes, but we also -- in the next part of the tab, we have a couple of rule updates. And the first one is our general definitions. We -- and the second part is our fluoro rule. We made some changes.

We talked about those probably a couple of years ago now, some things that we needed to clarify. And we made those changes in the

definitions. We updated numbers 187 and 188, and we added 193 and 194.

(Pause.)

MR. FUTCH: Tab B?

MS. COOKSEY: Tab B. And they all have to do with the fluoroscopy systems. And then in the fluoroscopy updates, we provided -- wanted to provide some clarification on requirements for the facilities. Part of this was the manufacturers trying to make it easier without losing any of the safety requirements.

THE CHAIRPERSON: Anybody else we need to discuss about this? Anyone have any questions about this?

MR. BURRESS: No.

MS. COOKSEY: We also have some other rule changes that we're working on right now. Several of them were in the promulgation process, so we can't actually discuss the contents of the rules, but I can give you the status of the updates on them.

In the 64E-5 in the RAM, radioactive materials part of the rules, we are making some NRC-compatibility changes, and that is currently under review by the Joint

Administrative Procedures Committee, and we hope that that'll be moving along soon to be adopted.

The specialty tech rules have been taken to the Department of State for adoption, and we hope that those are final around June 11th.

And we received the PET standards and have now started that part of the specialty tech rules in the system. Those haven't been published yet, but they've been sent through the Department for review of those forms.

We also on -- James, do you want to talk about the Nonionizing rules?

MR. FUTCH: Sure. 64E-4 is Control of Nonionizing Radiation, and it governs lasers predominantly at this point. And the Joint Administrative Procedures Committee sometime, I think it was last year, had identified certain parts of that rule that needed to be corrected or updated.

There's some places where the address for reporting some incidents was on the registration form, but it wasn't actually in the text of the rule itself, so we've added that, basically our address and phone number

and contact information, into the body of the rule itself.

There are other references to Title 21 of the Code of Federal Regulations, which is the FDA laser manufacturer, laser device standards at the federal level.

The way we had referenced 21 CFR, we didn't quite like the way we did that, so JAPC went back and changed the reference to what they thought was proper and correct. None of it really changed anything of substance in 64E-4. It was just what we considered to be technical changes, but JAPC wanted us to go through the full promulgation process, so that's where it's gone now.

MS. COOKSEY: And then the last one is -- the Department is working on an initiative to reduce regulations, and so we have been reviewing all of our rules and looking at the statutory cites of the law implemented, making sure everything's up to date, going through, making sure our incorporated documents and forms are all up to date. Anything that might be repeated that's in the statute repeated in the rule, we're reducing those so it's not

confusing, and just kind of cleaning them up. And that process will be ongoing for a while, 'cause -- well, the whole Department's going through it, and then, of course, it's now in Legal for them to review. But just our Bureau's rules alone, we have 330, so it's taking some time.

MR. FUTCH: All the state agencies are going through that.

MS. COOKSEY: As far as I know.

THE CHAIRPERSON: This is for reducing radiation exposures, right?

MR. FUTCH: No, this is reducing regulatory burden. And this one is a line -- recounting -- I don't know if you remember this or not, but back in the '90s, during the Chiles administration, we went through something similar. And, at that point in time, it was a rule reduction. And rule reduction back then meant actually eliminating rules. So 64E-3.001 -- that's one of the rules -- .002, that's two rules.

This one is not looking at the rule numbering. They're looking at the number of lines of text. And if anybody has ever seen

64E-5 in its entirety, it looks like the New York City phone book. It's a little on the thick side. So there's lots of areas to look at, and that can be reduced to -- to achieve -- anybody knows what the goal is, the stated goal?

MR. JOHNSON: Fifteen percent.

MR. FUTCH: Which is better than the '90s. I think it was 33 percent back then.

MR. JOHNSON: I just want to applaud everybody's efforts on this. This was not -- no easy -- not an easy task. They went through every single rule that was on the books and made some very, very good recommendations that had no negative effects that we could perceive for the program. So I was very impressed on how well it was done.

MS. COOKSEY: That's it.

THE CHAIRPERSON: Okay. The next item on the agenda is introduction of my administrators.

So, Yvette, you want to go first?

MS. FORREST: Okay. As I was introduced before, my name is Yvette Forrest. I am the newbie on the block, so to speak. I've been

with the Bureau a whopping 23 minutes, so to speak. I came on board in February. I just got back a few days ago from the CRCPD conference in Oregon, and it was absolutely fabulous. Had a great time. Met a lot of wonderful people and sat through some really engaging seminars. So ... other than that, a little bit of background about me.

I am a radiological technologist from a thousand years ago, where I graduated from Riverside School of Radiologic Technology in Hampton Roads, Virginia, where I was born and raised in Poquoson, Virginia.

My professional career, I've been a radiologic technologist, a radiology coordinator, and most recently, before joining the Bureau, I had stepped out of the field of radiology for many years and owned my own business which I sold last year. So -- gosh, couple of months ago, actually, not all of it was last year. But, anyway -- and last year I was the Jacksonville business -- small leader business -- small business leader of the year for the council.

I kind of have an unusual skill set to

bring to the Bureau, and I think that's kind of what made me attractive to them. I know that I have enjoyed my time with the Bureau, and can't really retire, because I have an 18-year-old going off to college, the same year as I have a kindergartener. So they're stuck with me. So you guys will see me a lot.

I look forward to the advisory council meeting today simply because I have a lot to learn, as this is a growing process for me.

One thing I'll tell you about the program, though, we are in a stage of flux, but it's an exciting change. I'm looking forward to the challenges and things that we've already implemented.

We are tackling some training issues, some program issues, training with both staff and with processes, and also with equipment. So we are kind of taking all -- all challenges head on, and making some vast improvements to make the program the best that it can be.

We've got a few other states that we're going to -- we're determined to beat, so within the next two years, Florida's machine program is going to be the best. And that's not just

fluff. That's a fact.

So with that being said, I'm going to let Jerry take it over.

MR. BAI: I guess a lot of you I've met at one time or another, or many times in the past. And just about every one of you have dealt with field operations for radiation control, which being an inspector for that, come into your facility. But they made me administrator for field operations.

Now, I was ... area manager for the central inspection office prior to that, but my main functions would be coordination of all x-ray inspections, all radioactive license inspections, incident response in the field, and any type of support for any other Bureau radiation control programs we have. That's me up there.

So, any type of dealings with inspection staff, that would be through me. And if you go to the next slide there. We would also coordinate all the field investigations through the area offices and support for programs and agencies could be anything and almost anybody -- anyone from FDA to FBI to Yvette's

programs to James' program. And then we also perform the power plant exercises.

Next slide. Basically, we represent about 11 regions around the state. Some of these regions are represented by one person, depending on the population and density of the area. Usually, industrial licensees coincide really close to the population density in that area.

We have five main offices and, additionally, we have two county programs. That would be Broward and Polk counties.

And, in addition to that, each of the field office inspectors is equipped with a vehicle, and they each have a full load-out of emergency equipment so that they can respond at any time.

We have on-call staff who are on duty 24-7. They're -- that emergency number you see on -- when you call that, one of the inspectors gets called. And that's at any time, even holidays.

My background ... I've been with the Bureau approximately about 16 years, something like that. I forget. It's a long time ago.

But my background, I've got a radiological technology background, Bachelor's in that. I've got an engineering background. I've pretty much been with the Bureau ever since.

I got an e-mail inviting me to the meeting. I'm here, and hopefully I'll pick up some stuff.

MR. FUTCH: Jerry, how many inspectors do you have statewide?

MR. BAI: Just get a -- approximately -- well, it depends. I mean, do you -- do you still consider me an inspector? I mean -- and the managers, are they still inspectors?

MR. FUTCH: Yeah. We'll count them, too.

MR. BAI: Yeah. Approximately 30 full-time inspectors, somewhere around there, plus you got the area offices with the managers, and we have some other additional staff who are non-inspectors. We think the numbers came out, we perform 17,000 tube inspections annually. I think we additionally perform around 700 or so radioactive license inspections annually, as well. Depending on the year, if it's a good year, 200 plus incident response, anywhere from junkyards to

somebody lost a source.

And I'm not sure, we -- investigations, probably along the same order as the incident response. Investigations would be anything that is not involved in the radioactive material.

Ecology, somebody just had a concern. Could be anything.

MR. FUTCH: Any questions?

(No response.)

THE CHAIRPERSON: How often do you inspect ....

MR. BAI: Well -- you're talking about radioactive materials?

THE CHAIRPERSON: Oh, both.

MR. BAI: Different types of inspections or different frequency. Accelerators would be every year. HDR's would be every year. Food irradiators would be annual. Most radiographic x-ray facilities are ... every other year. Veterinarians would be every three years. Dental, every five years. Depends.

THE CHAIRPERSON: Okay. Thank you.

MR. JOHNSON: Like I said, I'm Victor Johnson. I'm the director of the Division of Emergency

Preparedness & Community Support. I've been with the State of Florida for 20 years, and I've been with the Department of Health since January of 1997, so that's part of the group that actually joined when we were first forming the Department. We were -- I helped with the Division administration for six months prior to coming into the Department.

My last position was with the Division of Emergency Medical Operations, and that eventually turned into the Division of Emergency Preparedness and Community Support.

We have five Bureaus in our division. We have the -- of course, the Bureau of Radiation Control, the Bureau of Public Health Pharmacies, the Bureau of Public Health Laboratories, the Bureau of Emergency Medical Oversight, and the Bureau of Preparedness and Response.

And one of the main reasons why we are all together is that preparedness and response are linked. We very often are working together when it comes to any type of radiological issue, when it comes to preparedness or response, and we've been partners for many,

many years, and I'm very happy to be part of the team with the Bureau of Radiation Control.

I've been very impressed just by every time -- the different products that we've been able to work on since July of last year. And I'm looking forward to continuing partnerships, and hope that us being part of the same division, we can really do some things that will enhance the capabilities and protection for the State of Florida. Thank you for inviting me here.

(Pause.)

THE CHAIRPERSON: Anyone else?

Okay. The next item on the agenda is the MQA update.

MS. CURRY: Good morning, everyone. It's very nice to be here again. I always enjoy coming to these meetings.

I was just going to give you some numbers and some things that are happening with MQA. I ran some numbers from January 1st until May -- I don't remember, but it was Thursday. And in that time we've received 2,912 applications online. We received 1,356 applications by mail, for a total of 4,268 applications. Now,

that's just since January 1st.

As you-all know, if you are in education, we are now in the middle of graduation. Well, we're actually tapering down, but we are also licensing paramedics in our office, along with the rad techs, so we're quite busy right now.

Our online applications, we're doing those in 3.65 days; that is, either approved for examination, or approved for licensure, depending on how they're coming in. And of the paper applications, we're approving those in 6.28 days.

So, you can see that our online application has really helped us as far as our processing time. Actually, we went from, like, 17 days, when we were complete with the application by mail, paper applications, so we were at about 17 days average getting those done, and as you can see, we've dropped down to either three or six days.

Some of those are also because we're not getting the money in quick enough, whereas ... if we were to go to Wal-Mart and we swipe our debit card, it comes out of our bank immediately.

Well, when you do that with your online application, the way it's set up with the bank, it can take three to ten days for us to actually get that money. So until we actually get the money deposited into MQA's trust fund, we cannot work that application. So MQA is working with the bank on a new contract that that money will be deposited immediately, which will drop our days down even further than what we're seeing now.

We've actually processed five applications in one day. That's 'cause the money was there. So I see that happening in the future. If we can get the money in quicker, the days will go down. So, I'm really excited about that.

Also, MQA is promoting changes to our database on Thursday, May 31st, to coordinate with the date of the rule-change acceptance, as Janet mentioned, will be June 11th, so we'll be up and running, ready to go far before June 11th. So we -- we're ready. That is it.

Anybody have any questions for me?

DR. SCHENKMAN: Why does it take so long to do the paper applications?

MS. CURRY: Because when a paper

application comes in, it doesn't come directly to our office, it actually goes to the mailroom, then goes to another department that actually puts the information in, deposits the money, and then it'll come to us. So that's about a two- to three-day process once it hits the Department of Health in the mail; whereas, the online application is -- you know, there's no paper to go anywhere. It's all already input into the system. We can see it immediately.

(Pause.)

THE CHAIRPERSON: Any thoughts about going totally online?

MS. CURRY: We would love to, and that is in the process. They are looking at that, but funding is an issue, as always. But we would like to, in the future, see going to being able to -- like with our EMT and our paramedics and our rad techs, there's certain information that we still have to get in by fax or e-mail, like the four-hour HIV course completion.

So, we're hoping that, in the future, we'll be able to have the applicant actually scan those documents into the online system,

where it will be available to us immediately, just like the application is. So, yes, we are looking into that.

And we are also -- we're also looking at if you do a reapplication for any reason, if you fail your exam the first time, don't show up, and have to do a new application, that application must be paper at this time, because the way our system is set up, it pings off of your Social Security number. Well, it should ping off your Social Security number, but it doesn't. It actually sets you up a whole new file. So then we have to go in and merge everything back together, and it becomes a real mess if you're not real careful.

So, right now, your re-exam applications all have to be paper. So they are working on that, also, which will help speed up that second application process, also.

I guess that's it.

THE CHAIRPERSON: I know this isn't on the agenda. Maybe you don't even know the answer, but we do have a lot of time this morning, so just as a general question where maybe anyone can answer this.

What does the current job outlook look like for your RTs?

MS. CURRY: I don't have the answer to that question. When we get that question in, we just always refer them to the Florida Society.

MR. FUTCH: Maybe Kathy or Tim could address that. I mean, most of the programs are in there.

MS. DROTAR: I can speak to my program. I've got about a -- an 80 percent placement rate over the last five years. And my people -- grads graduated April 28th, and three of them had jobs already when they were -- when they graduated. And I think three more of them are still -- so there are 13 grads. So half of them are employed.

So it ... it varies, depending on the time, you know, but we have quite a few down by us. We have quite a few outpatient facilities and doctors' offices, so they tend to pick things up rather quickly, so it hasn't been too bad for that group of students.

MS. FORREST: Is your program strictly RTs or basic medical operators?

MS. DROTAR: Oh no we're just RTs. Yeah, just radiology.

MS. FORREST: I know, six or seven months ago, Mayo, in Jacksonville, had a position open, and they had 89 applicants for one position, and two of them are from Texas, for an RT position.

MS. DROTAR: Yeah, they get a lot of applications.

MS. FORREST: It's tough.

THE CHAIRPERSON: Yeah, I know the nuclear medicine technology job market is not very good right now.

DR. SCHENKMAN: It's not good.

THE CHAIRPERSON: We let those ... okay.

I guess we'll move on to Mr. Futch.

MR. FUTCH: Over to me. We have some different things this morning. In May, I was asked to go and speak at the Florida Nuclear Medicine Technology annual meeting about the specialty technologists licensure, which Janet had mentioned this morning. The rule is going to be adopted officially on June 11th. And Gail mentioned that we're ready to take applications --

MS. CURRY: We're ready.

MR. FUTCH: -- then. But it was the first time I had spoken to that group. I was actually surprised. It's a very large group. I was there on a Thursday afternoon, the second speaker after the opening speaker at two o'clock, and there was 150 people in the audience.

Apparently, by the time you get to rolling on Saturday and Sunday --

MS. BONNANO: There'll be 200 participants.

MR. FUTCH: Yeah, it gets even bigger.

So, I basically -- I talked about the history of the licensure for the advanced and post-primary that you-all have been helping us with for, what feels like, many many years now.

It was very well received. We started out talking about the history of licensure in Florida, and then history of this particular attempt to get advanced and post primary added to the primary categories that we already have. And, as you know, that -- that -- those categories are CT, MR, and Mammography.

There were some folks there who were, of

course, from nuclear medicine background, being a Nuclear Medicine Technology Society, and they were all very interested in the CT category, and there were many folks in the audience who already had the certification in CT from the AART, and they wanted me to give them an application to sign up right then.

MS. CURRY: Oh, yeah, we're getting calls.

MR. FUTCH: Which we couldn't do. Gail's folks at MQA actually gave us a whole bunch of slides on their online application process, so we took them through the online application process with the draft of what it's going to look like when it's effective at the end of the month, as well as the paper application. We revised the application that we used for many years for the primary categories, and added specialty categories onto that. And ... surprisingly enough, didn't get too many questions about mammography or MR. But I guess there's other society meetings, perhaps, about that.

And if you remember, we picked those three categories because they're the most numerous, according to AART's census, for Florida. There

are over 2,000 certificate holders in each of those categories. Now, they may not be mutually exclusive. There could be -- some folks have multiple categories.

And ... the only part that, as you know, is not in the current rule update that Janet was talking about was the PET. They were interested in that, too.

Mainly, the question is, do they have to have the PET license to actually practice with that, and the answer to that was no. But ... it was -- it was a very enjoyable experience, very good outreach for the Department. And they were all very thankful for you folks and your time and effort in trying to get the law changed.

Actually, I have a picture of the two legislators who were sponsors in the House and the Senate for this particular bill up on the screen. So, it was very good. I don't know, you probably were not there at that --

MS. BONNANO: My husband was having cataract surgery that day. I had to drive him home.

MR. FUTCH: Well, hopefully, that all went

well.

MS. BONNANO: Yeah. He's so happy it went so well.

MR. FUTCH: We were also -- we have also -- just to -- even updates that we've been in this morning -- wanted to mention that the Department's website is undergoing a redesign that's supposed to be effective on July 1st.

At some point, if I can actually make a connection from this room, maybe this afternoon, I'll show you what it looks like, but it's ... it's an initiative to retool the website from being kind of bureaucratically organized according to divisions and programs according -- instead of according to subject matter.

And so there will be a completely different look and feel to go long with the -- completely different look and feel of our new Department's logo. You may have seen this on your cards. It's ... it's kind of borrowing colors and themes and fonts from that, but instead of seeing all of the detailed navigation that you currently see to drill down to the Division, the Bureau, and rest of it

will start out with some key subject areas. Licensure and Regulations is one key subject area that's at the top level. Preparedness and Response is another one. Healthy Environment is yet another one, as well as ... Prevention, Safety, and I think it's called "Wellness." That's one group.

And Radiation Control will be underneath all of those, and primarily will reside probably under the Prevention, Safety and Wellness link. And, basically, it's in process. We're not exactly sure how it's going to end up. And, actually, in order to make it happen, we're using a completely new content-management system which none of us has ever touched before.

So, at the same time, we're building a new website. We're learning to use a new content-management system to build the new website with. So even the more experienced management people are holding weekly meetings in training rooms and saying, how do you do this, how do you do that? How do you get around this? Well, this is what we found.

But it's also supposed to be effective

July 1st. And ... every one of those main subject areas, you should able to be find Radiation Control.

The addresses for the Department, we believe that -- our current address is -- the one that we hand out, the one that we usually use is myFloridaEH.com/radiation, because it's the shortest. That's a domain that we own, we have rights to. So the thinking is that that should still exist after July 1st, and that will just refer people to the new location for the home page of the Bureau of Radiation Control.

The actual new website address for the Department of Health is Floridashealth.com. So there will be a multitude of ways to get there, and we'll, of course, use, I'm sure, all of the communications tools at the disposal of the Department to broadcast that to the world at the appropriate time; hopefully before July 1st.

(Pause.)

MR. FUTCH: So that's it's for the web design.

We've also been doing some -- some other

work. I just got back -- our continuing -- continuing assistance to law enforcement. I just got back from a week in Panama City Beach where the Florida Highway Patrol and the Alabama State Patrol were in town for some training and some maintenance on their radiation-detection equipment that they used for counter-terrorism purposes.

They had -- the defense contractor Raytheon was there. Raytheon is the manufacturer of about half of the radiation -- the mobile vehicle-based radiation detection equipment in Florida, and 100 percent of the radiation-detection equipment in Alabama, 'cause they don't have quite as many as we do, so they got one from Raytheon.

In addition, they took delivery of some new hand-held devices that are used for identifying radioactive materials. And they contracted with a company called Loris to come down and do some training on that. And the Bureau of Radiation Control, as we often do in Florida, supplied all of the radioactive sources for several days of training, so they could use those various pieces of equipment out

in the field to practice what they are learning in the classroom.

So we're there at this ... large multi-towered condominium slash hotel in Panama City Beach, you know, 13, 14 stories, and they are one of these resorts, you know, so they have like Bone Fish and some other restaurants in their commercial strip mall, part of the resort on the backside of the property.

And in between is probably -- oh, I don't know, 10 acres or so of empty field that they're using for, you know, future expansion for their site. And in that huge field is where, on one of the days, we got up early and planted about eight or nine sources, all out in the field. And so the two state patrols descended upon the site in rotating teams. They could only fit so many people into one vehicle at a time. Proceeded to go out into the field, and just using radiation-detection equipment, try to find the various sources that I had planted, which range from very small to a little bit larger.

And the first thing that the first truck from Florida does is find a 'pot' plant sitting

out in the field. It was in this nice little growing container with a little Miracle Grow supply of food.

MS. BONNANO: You should just leave it there.

MR. FUTCH: Yeah, I know. And, apparently, it just didn't fall out of somebody's trash and grow wild in the woods. It was very nicely hidden up against the tree line.

So they called the Panama City Beach police to come take a look at it. The first officer who showed up apparently was not part of the narcotics squad, because he wanted to stake it out and see who came back to harvest the plant. And then the more experienced narcotic officer showed up and looked at him and said, "It's just one plant. You wouldn't do that unless there's a whole bunch more." So they decided not to stake it out. So they pulled it up.

MS. BONNANO: Poor little thing.

MR. FUTCH: And it's not exactly what I expected them to find, and I didn't even notice it was there. I'm not exactly focused on that

kind of stuff. So I had been -- these fields were overgrown, and some of the places I was hiding the sources were just large mounds of weeds. And not that kind of weed, but you know, the regular ....

So I've been driving through these ten acres and, you know, after I planted the first or second one and drove off and turned around and looked behind me, I could see these two tire tracks going straight to the source, you know, the big tall weeds. And so, in order to counteract that, I had been laying some fake trails, as we say, out amongst the -- I never saw the thing, so I don't know. I guess it's all in your training and what you're looking for.

But they actually did really well and found -- I think one team found all the sources. And the other ones, especially the one that got diverted off on the potted plant, they were a little defocused. They didn't find quite everything. They were -- but they did really good.

THE CHAIRPERSON: It wasn't a radioactive 'pot' plant?

MR. FUTCH: No, no, it was not. At least it wasn't radioactive enough for them to pick it up with their detectors. And ... so that was the -- that was a ... an interesting experience.

And next week, we're actually back in Tallahassee. The Department of Energy is coming to town to do aerial and water based -- water-borne detection training with the Fish and Wildlife officers around the State. And the Florida Highway Patrol pilots, who are normally the ones who are out watching us on the Interstate with the little white lines and timing us to see how long it takes to get from one set of white lines to the next, they're going to be at the Tallahassee Airport to -- for several days of training.

They'll start out with classroom training like this, and use their mobile gamma spect systems that they own, and that the Department of Energy brings down -- shares with the southern region of Florida. And then they'll proceed to using those systems inside cars, because cars are cheaper to operate than airplanes.

So they do all -- most of their learning, how to operate the system in that environment. Then they'll move to a day of flying. And the last day, they'll move down to the coast where the FWC's large ocean-going vessel is based. And they'll start a day's worth of water-borne exercises out in the Gulf, I guess, of Mexico.

And we'll be there again, supplying the radioactive sources to make all of that possible.

And as part of that, I also want to mention that the Department itself, since we last met in October of last year, has purchased its own mobile gamma spectroscopy system that's made by the same folks who made the systems for the Highway Patrol and the Fish and Wildlife and also Department of Energy. And we purchased ours for dual use. It's to be used in conjunction with law enforcement as their own systems are -- FHP doesn't have its own system for -- kind of borrowing one right now from the Federal Government. So this will provide them a way to kind of get up to speed with the same kind of equipment that the rest of the agencies in Florida have, by borrowing

ours. But, also, ours was purchased for this same system, this mobile gamma spectroscopy system, can be used to -- in emergency response for radiological disasters, you know, for Fukushima style -- nuclear power-plant accidents or any kind of large spill of materials.

You can take that same system, and through the arrangements that we're working on with FHP and FWC, put that system into a helicopter or a fixed-wing Cessna and fly it over an affected area in real time, make a map of exactly what the materials are, where they're concentrated, and it can actually send the data back from the aircraft through some communication methods, to a person on the ground, on their computer.

So it was a great addition for us to be able to have that capability. Right now -- or I should say, in the old days, before all of law enforcement folks started getting these systems, if we had that kind of a incident in Florida, we had to wait for -- there wasn't a system like that that could be flown. We had to wait for the Federal Department of Energy team from South Carolina or Washington or Las

Vegas to respond with their aerial system, which is, I think the minimum for them to get here is, they claim, six to 12 hours, something in that nature.

And so, in our power plant exercises, for decades, we have practiced with field-based personnel, some of Jerry's staff, as Jerry mentioned, with hand-held instruments being directed and communicated over radios to go to this intersection and stand outside and take an air sample and take it back to the mobile lab and have it counted and see what the -- what the iodine concentration was, or read their gross gamma counts at that location and tell us what it was, and with stick spins, basically, we would put it on a map.

So this is ... this is, you know, light years ahead of what we used to have.

And we'll also be at -- in addition to providing sources, we'll also have some staff learning about the aerial use of these systems at the training next week in Tallahassee, so we can flush out and develop our own SOP for how we're going to use the system in those two different environments.

THE CHAIRPERSON: Is it mainly for disaster situations?

MR. FUTCH: Well, the gamma spect system is about 50 percent for that, and 50 percent for preventing counter-terrorism issues. It's the same system. It could be used either way.

I should mention, the systems that we use in the -- most of the folks in the country who are doing this have kind of settled upon -- especially the Department of Energy crew -- its ancestry comes from the minerals exploration industry, oil and gas. And these systems were built to be used from airplanes to map out the naturally occurring formations in the ground, uranium, radium, thorium, potassiums, in order to be used as one -- one data stream to try and predict where they would find oil and gas.

So, a lot of the other systems, including some of the ones that were built by defense contractors, are hideously complex. I mean, an entire truckful of somewhere in the neighborhood of, I think, five or six computer systems, all running on different boards, fill up the back of an entire SUV. And if any one part of that goes out, you know, it's --

okay, pull over to the side of the road and call the defense contractor, and let's see if we can figure out what part is not working.

The system that we purchased, it takes its ancestry from the oil and gas industry. The entire computer system is smaller than the size of one of my computers here, my laptops on this desk. And so it's this little box, a bunch of cables, and then the actual sodium iodine crystals which are four-by-16 inches long.

And you can put multiple -- whatever you want your detection capability to be, however much you can afford -- each crystal's about $30,000. So you can buy as many crystals as you can afford. And it's not rocket science. The more crystals means more targets for the gamma rays to hit.

And it's -- it's a much better system. It's recognized, and it can be used for both of those missions. But it's -- since it takes its ancestry from the oil and gas industry, it's really sensitive enough to see the naturally occurring materials. So when you're running it in the back of one of our vehicles, and you're looking at the display, you can actually see

all the peaks from the Thorium and the Potassium against the background. And if anything is nefarious, somebody walks by with a little check source, you can actually see it pop up against that background and see -- it's quite remarkable. Maybe, at some point, we'll bring that and show that to you, how that all works.

So I think that's it for the PRND update.

DR. SCHENKMAN: Did you find any difference between the Raytheon equipment and whatever other equipment the Florida State Troopers had?

MR. FUTCH: Yeah. There's -- in terms of sensitivity, they're fairly close. I don't want to get into too much specifics because we're recording this for public use later, but they're not too far off in terms of sensitivity for the illicit sources that you would expect to be used in a -- in a dirty bomb, cesium-137 or something like that, which is a pretty good gamma emitter, to begin with.

The differences come in -- when it comes down to those naturally occurring elements. So, for example, if the bad guys are really

good at shielding their dirty bomb, the system that we've got would probably be in a better position to find that, because it can actually see fairly low levels of really weak emissions, to start with.

But in terms of complexity, there's a tremendous amount of difference. The newer systems that you've got, and the ones that FHP and the other agencies have been buying for the past several years, are much more reliable, much less apt to have a -- a little problem that requires a software engineer to go tweak, and much cheaper.

I mean, I know $30,000 sounds like a lot for a crystal, but the original system that FHP got from Raytheon was half a million dollars. Of course, they're a defense contractor, so the more you buy, the cheaper it becomes. It's like F-18s.

THE CHAIRPERSON: Is that all?

MR. FUTCH: Well --

MR. SEDDON: Can I backtrack a little bit?

MR. FUTCH: Sure.

MR. SEDDON: Going back to what Janet -- your update. For actual regulations, the ones

with -- specific to fluoroscopy, those have been published, correct? They're already out there?

MS. COOKSEY: They're effective.

MR. SEDDON: They're effective.

Were those -- these ones we reviewed, or is this based upon previous discussion?

MS. COOKSEY: It's been probably two years, so I don't know if all the --

MR. SEDDON: We went through our discussion like a couple years ago with Don.

MS. COOKSEY: Right.

MR. FUTCH: The eventual --

MR. SEDDON: This is the final result of all that.

Jerry, have you had a chance to review this as far as how the inspector is going to -- the specific question I have is the way it's worded for measurement of -- for output for c-arm type of units. Sort of gives you three ways to ... review. So how are your inspectors going to be measuring?

MR. BAI: So you're familiar with the formal procedures?

MR. SEDDON: Correct.

MR. BAI: Which are still current. But that -- that was a program, just so we have a new administrator. It's programs drawn to figure out what they want, and then it's going to be my job to figure out how to give it to them. And that may change.

MR. SEDDON: The wording is a little -- it leaves you open to measure -- if you have the c-arm above the table, you turn it one way; lateral one way; under the table one way. Basically every c-arm can go all the way around. So there's three ways you can measure max exposure. And we've seen a lot of variations from the inspectors just until now, as far as how they interpret the proper --

MR. BAI: Yeah. The original one came from the FDA definition, and the CRCPD, for a mobile -- those are pretty straightforward, 30 centimeters from -- that's where you're going to measure the input.

And then we had these special procedures where the input phosphor can be moved back and forth, or the table can be moved back and forth. It could change the SID. It could change tube distance. Sometimes they move

independently. And then they have different positioning. You know, you've got a single unit that is both bilateral, you know, use in any position that you wish, and then -- and then the former theory was -- everybody here familiar with some of those devastating pictures of radiation burns? You know, for those extremely long procedures where, basically, they move the beam-limitation device, the end of the column there, right up against the elbow, or they didn't even raise the arms, and you literally have radiation burns and radiation bruises.

But there is -- really, there is no fix for that, you know. Just two years later, another chunk falls off or, you know ....

Because of that, the former administrator felt that it was very important that something was in place where ... and how do you -- how do you -- there are no ... limitations built by the manufacturer. I mean, you can move a floating table as close as you want, you know, left or right, especially on the laterals. Those are the most dangerous.

So, he wanted to see that procedure put in

place where the facility is aware not to do that, putting up the end of that tube right up against somebody's skin and then running it for a long length of time, especially on lateral, because it will ramp up the technique.

We're going to have to take a look at that again, as a procedure. You know, once the program --

MS. FORREST: That's -- as I had spoken earlier, the program's in flux right now. Jerry and I have spoken at great length on several issues, that being one of them, on some things that we need to revisit, some things that, you know, the previous administrator had some good ideas, but some things haven't been visited in a while. And so the program is committed to revisiting some things that need some attention, sooner rather than later, and we're committed to doing that.

And Jerry and I, we have a working relationship and get along well. And we're looking forward to addressing a lot of those issues and some other ones to make sure that we have the best outcome for our patients.

MR. BAI: Hopefully, we'll clarify.

MR. SEDDON: Yeah. Clarification would be good. Or maybe even setting out a recommended radiation-protection program, which is what this refers to, facilities that can use -- that might help correct some of the confusion. Facilities are going to have -- when they start reading this, just to try to figure out how to prepare for an inspection.

MR. BAI: Yes.

THE CHAIRPERSON: Any more?

MR. SEDDON: No.

MR. FUTCH: Well, in the vein of -- we'll see how this works, because I forgot the speakers, but I think you'd should able to be hear this.

Last fall, the Domestic Nuclear Detection Office, which is the part of Homeland Security that is funding the development of these radiation detectors for law enforcement, is training the officers and actually is certifying people in different states, such as several of our health facilities in Florida, to teach law-enforcement officers.

They released a whole bunch of new revised courses to be used, and also a set of training

videos to go along with the courses. Some of the training videos were actually shot in Florida, all the waterborne -- not all -- a lot of the waterborne training videos were shot with the Fish and Wildlife crew in Panama City Beach.

And I'm going to try and play some of these for you guys, just to kind of give you a feel for what they're using all of this and how they use all of this equipment. And the only problem I think I might have is sound, so bear with me on the sound. Hopefully, we'll hear what is going to come out of this laptop. Unless somebody happened to bring a pair of speakers.

THE CHAIRPERSON: Before we do that, take a five-minute break.

MR. FUTCH: All right. And then we'll do the videos.

(Recess.)

THE CHAIRPERSON: Okay. Get to see our videos.

MR. FUTCH: In actuality, I guess we're going to do a little change up and see if I can find a better cable to plug in some speakers.

Why don't we do that this afternoon.

But we have another topic, and that's Radiation Response Volunteer Corps training we have conducted for a number of years. And we did talk about this. Okay.

For the past several years, we've gotten a grant from CDC to conduct some trainings of basically volunteers who want to be part of the Medical Reserve Corps, which is the official volunteer mechanism, I guess you'd call it, for the nation and for Florida.

And, in this case, for our specific purpose, which is in the event of a major radiological incident involving mass casualties or people who think that they may have been contaminated, like a Fukushima-style accident, is to augment the resources of the Bureau for doing the population monitoring and running the portal monitors.

We've been doing this, I guess -- I didn't realize we were doing it that many years, but according to the slides, it's been a number of years.

MS. COOKSEY: Well, we had the initial in 2008, but it was a couple years before we got

additional funding.

MR. FUTCH: In 2010 maybe, it picked up.

So I want to give you a little sense of some of that and what it looks like out in the field. So, as I mentioned, RRVC was established as part of the Medical Reserve Corps. I should have just advanced this slide, right -- yeah, here it is.

The first meeting was in June '08. You-all could read the screen, 96 attendees. And then the regular classes started in 2010. And it seems to me, we usually do somewhere in the neighborhood of eight to 12 classes all over the State of Florida in various cities. We try and -- try to range anywhere from Pensacola to Miami and everywhere in between. And what we do is we go to the local Medical Reserve Corps coordinator, and they advertise it first to their members, and then we also put it on the website, and we do some mail-outs to nuclear med techs, radiographers. And we are looking for people who have, ideally, some sort of familiarity with radiation, to start with, because what we want them to do is, in the event of a disaster, be activated and come help

us run the portal monitors and use a contamination-leveling-type screen device and separate the people who truly are contaminated from those who aren't.

So, we want someone who is not going to run away, screaming about radiation. Nuclear med techs are ideal because they have the hands-on familiarity with the equipment and the daily experience with materials, as well as all the other knowledge. But there's only about 2,000 of those folks in Florida, a little more than that now. And there are 18,000 radiographers. So that's the second most popular group. But we also advertise it to the nurses and to the EMTs and the paramedics.

And I think, in any given class, probably, oh, I don't know, 20 to 40 percent of the class probably are folks from that category. And the rest are people who are just out in the public and who are, you know, conscious of such things and aware of such things and want to help out in emergency.

So the classes end up being a wide range of experience. In 2010-2011, these are the cities where the trainings were conducted. In

that year, or those two years, I guess combined, about 400 volunteers were trained. Last year, slightly different mix of cities. Sometimes we get into -- like wound up in Milton instead of Pensacola, for some reason, one year. Or, you know, Winter Park instead of Orlando. The Villages was quite interesting. I had never been to the Villages before.

MS. BONNANO: Oh, that's wonderful.

MR. FUTCH: Very, very interested group of citizens of the senior variety in the Villages, who were there and, you know, bright and early in the morning and ... wonderful, wonderful class. It was really interesting to teach that group.

And it's always nice to find folks who are just brand new to radiation, and just start explaining some of the basics. I'll go into some of the material. We've actually got it here, and I'll show you what we used.

Two hundred and forty-five volunteers trained in 2012. And I think we've got a couple of cities left. We got Orlando and West Palm Beach still left to go this year, but these are the cities that we've been to --

almost 400, so far. I'm pretty sure we'll put that over 400 by the end of the year.

We've actually got some pictures. And ... let me back out of there, go over to the -- just give you a framework for what we're doing in the classes.

Now, this is actually the whole presentation for the morning. Seven hours of -- seven credit hours. All of the licensed health professionals who go can get CE credit through various mechanisms. And ... it's -- basically, the way it breaks down is the morning is indoors, Power Points. This is the actual Power Point here. There's ... oh, 180 some odd slides in this. But a good three hours, without breaks, of Power Point. It's not that we do it that way, of course, because we'd kill people, which we don't want to do. And they'd probable walk out.

But the morning is explaining the following ... I'll show you. Just go over a couple of these.

This is the -- all right. Somebody always put these things together. I hate slides that do this.

In the introduction, we explained a little bit about the Bureau, why you're here, and how many people do we have for monitoring, and why you need to help us out.

We spent about 45 minutes to an hour on radiation fundamentals. That's an experience. That's an interesting thing. A lot of folks just have only the idea about radiation from, you know, science-fiction movies and popular press, so it's a great eye-opener for a lot of people.

Then we talk about the possible reasons for nuclear power plant accidents, weapons of mass destruction, and -- destruction where there might be a mass casualty.

Let me break out what we call a strike team kit, show you some pictures of that. Put the actual instruments -- put them on the table, and dosimetry, how we measure a dose, and we go through that with them in the morning. Show them how to operate each individual instrument. Then show them the overall kind of state response to an accident, the county, what the county's responsibilities are, and then we talk about what their

responsibility would be in the community reception center for population monitoring.

And then the afternoon is basically what everybody always likes, which is ... to get the equipment out and set up the portal monitor. And we have a variety of exercises, and that's what most of the pictures are from, and we'll show you those in just a second.

So that's the rough thumbnail sketch. When we're talking about ... the Bureau, we've got this ... commands -- the organization, and here's the Bureau, and then we start talking about, you know, what we do.

And this is a -- more pictures. It's always good to have pictures. And we talk about our surveillance programs, monitors, the power plants. Everybody always loves it when state employees are paid to go fish. We don't get to eat the fish. We grind it up in a blender and put it on a radiation detector, but it's still interesting.

We monitor some of the phosphate lands. We have repair and calibration services. We respond to accidents and incidents, including the FedEx plane crash in Tallahassee. That's

on the upper left. And the steel recycler over in Jacksonville, the Ameristeel, where they shredded a source contained there, the whole facility had shut down for a while. Cost millions of dollars.

We talked about our training that we do for a variety of purposes. Firemen, policemen, emergency responders of all types.

Inspection of low-level waste coming from the power plants. Our RAM storage facility in Orlando. Somebody usual picks out the invigorators there in the middle slide where you get the radium-infused water. Not too many people want those anymore.

We actually have a class with people who know what all this stuff is. I bought one of those. You know, can I have one of those? Yes, because we won't have to dispose of it and pay money to do it.

And radiation medicine -- this is all in the part where we talk about what the Bureau does, monitoring the Plutonium launches from Cape Canaveral when the various devices go up.

And then the PRND side of things and -- where we're at. So that's ... a little bit

about the Bureau. And then the fun starts.

And this is the radiation fundamentals. And we start at a very basic level with atoms and protons and neutrons, and move on up from there. I won't go through all this because we don't have much time, but I wanted to show you a few of the high points that usually cause some discussion.

We talk about different types of radiation that you might be worried about in an accident. And then we break it down and start talking about each one individually, and their properties and, you know, shielding materials and the rest of that.

And we get to this one on the alpha particle. We use Mr. Litvinenko as an example of -- the former Russian spy who was allegedly eliminated by the Russian government because they didn't like what he was saying in Britain.

Polonium-210, which is an alpha particle emitter, that one always causes -- they like that one. Kind of brings home the point of alpha radiation, and it's dangerous. What a beautiful poison it would be, too, if you had enough of it and could afford the state-level

amounts of it.

(Pause.)

MR. FUTCH: And we usually talk about ... some of the basic concepts, and this is taking a while to come to this point, but we try and get a sense of how much material there is. And people always want to talk about pounds and reintroduce the concept of activity. In this way, we can give them some relative activities for the same weight of different materials. So you could see the tremendously different amounts of radioactivity.

And everybody always thinks uranium is the most radioactive thing in the world, and it's like three microcuries per gram. And Iridium-192 it's traveling down the street in the industrial radiography camera, almost like 10,000 curies in a tiny little paper-clip-sized amount that's in the camera. So we start to give them a sense of what's important with things of that nature.

And then we talk about half-life, and give them some examples of -- ranging from medical isotopes to the naturally occurring stuff, and talk about the differences in the half-lives.

And, usually, we ask them if they want to use Uranium 238 for a medical isotope, and everybody says, no. And they -- you know, you can figure out why.

And, you know, we got the little graphics of showing, you know, ten half lives and the rest of it.

Sorry for popping around here, but I don't want to be here for six hours. What else do we have in here?

Oh, we talk about which parts of the body is most susceptible to radiation. And then we talk about how we know certain things. And we have this picture of -- I don't know who this is. Anybody know who this is? I don't know this particular person, but it shows a lady looking through a intensifying screen at the bones in her hand. This is usually when we start talking about causes to the human body in high doses and the rest of it, and then show the x-ray tube and the things that happened to the early radiologists with the doses to hands and hand -- burn and then infected and then lost, and also eye exposure and the rest of it.

(Pause.)

MR. FUTCH: Let's see. Typical doses to kind of bring home -- since we're talking about meters and numbers and the rest of it, how do we bring that home to the people?

Somewhere in here, I think around here, we talk about typical doses for various and sundry things. We still use ten millirem, even though it's probably an overestimation I guess these days, for chest x-rays.

Living next to a coal plant, living next to a nuclear power plant, everybody always thinks it's worse to live next to a nuclear power plant. They forget about the naturally occurring material that's in the dust from the coal plant. Coast to coast, being both several miles, the atmosphere being more exposed to the cosmic radiation.

Smoking, if you didn't have a reason to quit, there's more. From the -- the Polonium, I guess, that's in the cigarette smoke.

And then we get into ... typical doses to different folks, different populations.

Somewhere in here -- oh, we start talking about what sources are out there. We've got a little graphic here of all the different things

that you can think of.

We actually bring a lot of these consumer products and use them in the afternoon to -- as sources for people to measure and gain experience with the dose-rate meters and the contamination meters in the afternoon classroom experiences, so we've got Fiestaware where we've got radium dial clocks, we've got the whole ... we've got some ... where is the one ....

Some maps of the naturally occurring distribution and dose rates in the United States.

And then we've got ... food chain and, you know, if there's naturally occurring material in the ground, and it's absorbed by the plants and the chicken, you eat the chicken -- sorry if there are any vegetarians.

The next thing we talked about is natural radioactivity in your body. Of course, pico means really, really small.

And let's see what else we got.

Some more fundamentals. We get a little bit of explaining the time, distance, and shielding, of course, and the rest of it.

And then down here we start talking about the sources of things that might result in potentially contaminated mass numbers of people.

We talk about the national response framework which has a ten kiloton nuclear explosion, which is typically what most folks think the terrorists might be able to come up with. Uranium 235, and the consequences from that to the population.

And then we talk about weapons of mass destruction and the different ways that those might be distributed in the -- in the method that everybody thinks about, which is, you know, connect a pipe bomb or something to a lethal source of material and just blow it up and disperse it.

And we talk about the other ways that you could disperse material that nobody is going to think about because, you know, it's in a crop duster, or it's in a firework at a big football game, NASCAR event.

And then, eventually, it gets to where we're talking about threats to nuclear power plants. And they specifically talk about

cutting off power, airliners hitting the plants and assault, and they give a comparison size, talk about how big the containment building is, how hard it would be to hit with an airplane compared to the World Trade Center or the Pentagon.

They go through a lot of ... lot of details about power plants, and there's even a video that shows a F-4 Phantom on rocket sled being propelled into the side of a concrete wall built to the same specifications you would build for a nuclear power plant. And maybe I'll show that this afternoon if I can get the sound working.

But, basically, the plane was vaporized and the wall was unaffected. It's still going like four or five hundred miles an hour into the barrier.

And then, eventually, into ... actual explosives. But -- so you -- through all this ... there's even a section -- anybody know what Rad Resilient City is? Have you heard of that?

There's a -- it's a great website. We talk so much in this class about terrorists

building Hiroshima-sized nuclear explosives and what the devastation would be.

We wanted to put in something positive, so the University of Pennsylvania Medical Center has on the web this Rad resilient City -- it's called radresilientcity.org, if you want to go there and take a look at it. Radresilientcity.org.

And there's a whole bunch of materials that they developed in concert with some health physics experts, people from the CDC, the Department of Energy, and the Weapons Labs, and the whole idea behind this project is trying to change or trying to begin to change the public's thinking about ... the survivability of a nuclear bomb in the United States. And what we usually say is that -- you know, we've all grown up and are conditioned to thinking in kind of cold-war terms with two super powers, with thousands and thousands of nuclear -- multi-megaton nuclear warheads, you know, coming down on either side, and survivability of that, which is, you know, pretty much none. Or ... at least you probably would'nt want to try and survive. It wouldn't be a fun thing.

Which is very, very different from a terrorist organization, even a state-sponsored terrorist getting ahold of enough material for a ten-kiloton type bomb, which is the Hiroshima -- ten to 15 kiloton Hiroshima-size bomb, which is very survivable for at least the people who are not in the immediate vicinity for the blast itself.

So this whole Rad Resilient City project is the health physics folks and medical physics folks and everybody else coming together, including one of our own folks from Florida, Dr. Lanza from the Pensacola County Health Department, putting some basic rules of thumb and communication messages together for people to understand what you can do if, God forbid, something like this were to happen.

And what they've put together is -- there's some tenets -- they call them tenet of preparedness. We're only talking about this particular size, and it's a ground-based detonation. It's not, you know, delivered from the air or something like that.

And the first tenet I've already described to you, which is that, you know, in contrast to

the cold-war image, this is a much more contained survivable type of event. And they describe damage zones. And, basically, you've got the center of the blast there, and that first purple color is -- is the non-survivable zone. This is the one where, you know, pretty much buildings are reduced to rubble, and there's the huge blast effect which does a number on the human body, and the thermal radiation.

But then, beyond that, from about roughly a half a mile out, you see these other zones, and they're progressively more survivable, depending upon what kind of structure that you are in.

And then the biggest thing, and the reason most of this project exists is trying to show folks the fallout is what you're really trying to avoid. That's where the ... the blast itself, the neutrons from the blast take the material from the ground that's not radioactive, and the prompt neutrons make that material radioactive, and then it's, you know, thrown into the air with the force of the blast. And the whole thing is trying to avoid

what you can, to take shelter to avoid that fallout, and how long you have to do it.

And they actually rate different structures, and they go into this. And this again is talking about trying to survive from the fallout, which is where most of the casualties would occur. And it gives different zones and different time scales, and it's way too busy to go over in this meeting, but basically, it starts out at time zero above, and then it starts giving different chronological updates as you move down this chart. The last two, I think, were 12 hours and 48 hours. And the first couple, I think, are like an hour and two hours and such like that.

And then the whole point of this is, if you're close enough to survive and then still see and hear the blast, what you want to do is take shelter as quickly as possible, hopefully within the first ten minutes.

Now, if you're 10 miles away, right, and this thing goes off, and the wind is moving at ten miles an hour, the first fallout is not going to reach you in ten minutes. It's going

to take a little longer than that. But, again, this is a great big -- kind of rules of thumb for everybody to go by. So what they want is for folks to get into shelters as quickly as possible.

So then they actually show them different ratings for shelter. And that is -- this is what's on the screen right now. And they put everything into basically fallout protection factors. It's kind of like the SPF for your sunscreen. It's a relative scale. And they show a one-story, wood-framed building on the left, and I think -- I can't read the numbers from here, but I think it says, two to three protection factor over being out in the open.

And -- and they also show, if you're lucky enough to have, you know, underground parking garages or maybe even a basement in a house, which is not that common in Florida, of course, but they usually go to the right. They start to show the brick structures and then concrete structures and then multi-story buildings. And you can see that the -- of course, the greater the number, the better the protection factor. So the best place to be is like in an

underground parking garage underneath a big downtown office building. You got a protection factor of 200 there.

But then we also show them some -- you know, some different things. If you happen to be in an office building, where do you want to be and where do you not want to be?

Well, if you are one those people who paid for the real expensive penthouse apartment, it's not going to help you out in this situation, because you're very close to the roof where all the deposition is going to occur. So you have about the same protection factor as some of these other one- or two-story structures down here on the left.

The same is true of ground level in tall buildings. You can see the ground level -- the big tall building on the right has a protection factor of ten. Well, it's on the ground, and the fallout's also going to fall on the sides of the building, but also on the ground around the building.

So, one of the best places to be in the office building, if you can't be underground, is to be right smack in the middle where you

see a little blue 100. You are kind of equidistant from the roof and from any roof that might be in deposition, and also from the ground.

So this is -- again, it's all relative. You know, if you have to run to some building, which building is better? Well, any building is better than none at all.

And then some of the other things -- okay, so get to the shelter in the first minute, and then the other thing about a ground-level burst from a nuclear blast is that an awful lot of the radioactivity in the fallout dies off very quickly, in the first couple of hours. So whatever shelter you got into in that first minute or couple of minutes, after the first hour, if you can get to better shelter, at that point, enough of the radioactivity has died off, and like right across the street is one of those multi-story, big underground parking garages. It's better if you actually leave your little one-story, wood-frame house and get over into that structure, but don't do it before the first hour, because you want to wait that long for enough of that intense

radioactivity to die off.

And then -- and if you can't upgrade, don't. Stay where you're at. It's better than nothing at all. Then start listening to the radio and try and find if there are evacuation pickup points, folks are going to be coming in to take people out. Try and do that at -- you know, by the end of the first day or at the end of the first day.

So that's what's the whole Rad Resilient project is about.

All right. So -- and then the rest of this, we actually get into the equipment. And here's the Strike Team Kit and two instruments that we use. This is the Canberra UltraRadiac. This is the dose rate meter, and the one on the right is a Ludlum 2401-P, and this is what we use for monitoring contamination, and it has the pancake type of probe which will pick up some alpha and all beta gamma built into the device itself so there's no separate probe. It's all one combined instrument.

And they show how to operate this in nitty-gritty detail. Then they go through the level. They show them some dosimeters. They

still show them the old pen, you know, look through the dosimeter at the light, direct-reading dosimeters because that's what a lot of the counties have in quantity. Still those old civil-defense quantities of instruments are out there.

And, of course, we show them how to operate the portal monitor, how take out the kit, how to assemble it, and how to operate it.

But let me drop back to other presentation and show you some of the pictures.

This first set of pictures is actually the oldest. It's from 2012, and I think this is Gainesville or Jacksonville. This is some of the folks with the meter case or the Strike Team Kit open, and you can see the lady holding -- it looks like the UltraRadiac over there on the far corner.

Kill some of these -- kill some of these lights. You got the light control over there?

MS. ANDREWS: Sure.

MR. FUTCH: Now, this is the classroom. This is going over the instrument portion of the -- of the morning lecture there, with all the Strike Team Kits in front of them.

This is Charley Adams who was with us for many years, former Air Force pilot. He's now retired.

This is some of the presentation Charlie is going over.

That's beautiful. Thank you. Even better.

Yeah, why not. We can all go to sleep now.

MS. ANDREWS: All or nothing.

MR. FUTCH: Let me just go through here and give you some more interesting things.

Okay. And that's the portal monitors in their cases, those black cases. They'll fit in the back of an SUV.

MS. ANDREWS: Sorry.

MR. FUTCH: That's okay. Just leave it off. That's fine.

And what we usually do is leave one assembled -- I apologize, some of these are a little fuzzy -- usually assemble one, kind of change the routine around. Now we usually assemble one, and have that as an example to show them, and then have it talking through assembling the other one. Which you can see

they're pulling it out of the case. The instructions.

And now it looks like we're back to using the instruments. I think we're going to go to some of the hands-on stuff.

Okay. So she's actually using the Ludlum right now with one of the sources on the table. There are various sources. And we're just trying to get them used to reading the meter. One's electronic, auto-ranging meter. The other one is the old-style manual with the needles. You have to change the dial to go to a different range.

They're filling out their proficiency station sheets. This is actually where they're just reading the dosimeters. You can see she's holding -- the lady on the right is holding an electronic dosimeter. Very easy. All you do is pick it up and read the display.

The UltraRadiac used in dose mode is the same way. It's maybe one or two buttons to pull up the dose rate reading. The pen-based dosimeter to the yellow thing on the device right there is the most difficult. You haven't lived until you've tried to show an elderly

person in The Villages how to read a direct reading dosimeter. It's like using a telescope. You know, you got to look through here, and you got to find these little fine lines inside of it. I hope to goodness we don't have to actually use those in a real event.

Now, we have couple of dummies that we bring, besides our staff, these guys that we employ here. No, I'm kidding. And we plant little sources all over the -- all over the dummy. It's actually -- usually we use little Coleman latern mantles with Thorium in them. And we usually put one inside the mask, and we put one down by the foot, one in the chest somewhere. And they're supposed to go over the whole body and try and find all the locations and take a reading.

You can see she's not using the best technique. She's a little far away. But that's normal. That's usually the way people start out.

And then we're back to the table, showing the lady in this case taking readings off the different objects. You can see the fiesta wear

in the orange bowl behind her. There's a bottle of no-salt that the meter will actually pick up the beta and the gamma coming off the Potassium 40 inside of it.

And the lady in the back is actually trying to use the directory and dosimeter and trying to read -- that's another station, the one we showed you before, close up. Yeah.

(Pause.)

And people get so into this. You know, all we're doing at this particular station is just reading a meter. They've got their little sheets down there. Half of them think that there's going to be a test at the end, so they're very, very intense on getting the number right. And all we're trying to do is get them to read both the number and the units, and put it down on a piece of paper. But they are taking this very, very seriously.

MR. JOHNSON: How do you advertise these classes?

MR. FUTCH: A couple of ways. The first thing we do is make contact with the local MRC coordinator in the region that we're talking about, and then they use the local county

resources and their contacts in e-mail, in websites, to put that out.

And then at a department level up in Tallahassee, we'll put it up on our website. In fact, if you were to go to our website right now, you could find the two classes that are there. And that's where the general public can find out about it.

And then, also, we use the resources of MQA. MQA has all the contact information for all the nurses, the x-ray techs, the nuclear med techs, the EMTs and the paramedics in the state of Florida. So as soon as the MRC person -- for example, right now, there's one in West Palm Beach.

The West Palm Beach MRC person talked to the office and decided they were going to do a class. They started their advertising. Janet obtained lists of nuclear med techs and those folks in those counties around West Palm Beach, and started doing some direct e-mailing to them.

And there's actually -- MQA is great because they've got one part of their application where they actually ask people if

they want to assist in the event of an emergency. So we just pick those people who basically pre-identified themselves, that want to assist in the event of an emergency, and -- and use those for the -- for the direct e-mail.

And we found that's better than what we used to do, which pretty much got us blackmailed -- blackballed, and spammers through many, many different systems like gmail and Yahoo.

But I think we've had pretty good response since we've started this. Very, very interested people, even more so than before showing up for these -- for these classes.

MR. JOHNSON: How do you choose the locations?

MR. FUTCH: It's pretty much which MRC local coordinator wants to do the class. The MRC folks have to do a certain amount of -- the volunteers have to do a certain amount of training every year, so it's always a struggle for them, so they'll come to us. The lady in Pensacola, oh, my Lord, she's a wonderful person, and she -- she contacted John, and we got the class set up. And while we were there,

the night before the class that we'd already set up, and you have all these volunteers coming in, she took us out to dinner at the local watering hole and basically twisted our arms for more training, because, you know, they're in Pensacola.

So, unlike Orlando, lots of things -- you can't just like, you know, drive by. And they're in the very western part of the state, and it's hard to get people to come, I guess, to Pensacola to train. And so they're suffering from wanting more training to give to their MRC people out there.

So that's -- that's kind of how it starts. We have to have that local -- that local interested person who wants to do it.

THE CHAIRPERSON: Do they have any physicians taking these courses?

MR. FUTCH: We do -- most of them are retired. There's a lot of -- I shouldn't actually say, "a lot" -- there are a few -- probably in a class of 50 people, there'll be, you know, 20 nuclear med techs, radiographers, maybe another ten if you include the nurses, and there'll be two or three retired physicians

or occasionally physician assistants who are -- who are able to come. I mean, it's a lot of -- you know, it's a devotion of an entire day.

Now, we do the classes according to the wishes of the MRC, so most of the classes are on Saturdays. And these days, the department staff who are doing these are probably donating the time to go do the class on a Saturday.

Occasionally, we'll have some MRCs that want to do it on a week day. Those are usually the ones that are more plugged into, like, a hospital. Or they know they just have a lot of people in -- for whatever reason, their preference is for their people to come during the work week and do it on a work day.

But it really doesn't matter to us. Whichever the local folks want, that's what we're going to do.

DR. SCHENKMAN: Everybody has to have some kind of pre-training, like -- or do you just get people off the street?

MR. FUTCH: Before this class? Yeah, we get people off the class [sic]. The way it works, one of the appeals for the MRC itself is, you know, in Florida, if a disaster

happens, you can't just walk up and volunteer. They won't accept that. So the way that you -- if you're going to volunteer for anything, you have to be in one of these groups of people identified ahead of time. They're actually -- they're actually doing background checks and fingerprinting on these people now, which they didn't do -- they didn't do it years and years ago.

So there is a -- you got to be -- you got to want to do this, to be able to go and, you know, be fingerprinted and all the rest of that stuff.

But the ... so people who -- who go, they have some advantages. If there are any counter-measures that can be administered -- like, usually, we are talking radiation, you know, any kind of accident that might have Iodine of any kind. Usually Iodine 131. You know, there is Potassium Iodide, which is available in stockpiles in different health departments in the state of Florida for use in power plant emergencies.

If you're a member of the MRC, you're considered to be an emergency responder, and

you're going to be one of the people who's first in line, just like department staff or anyone else, who's going -- 'cause you're going into the accident. Right? And the department has responsibility to protect you. So you're going to be one of the people who has that available to them.

And, also, because we don't want you worrying about your family, your immediate family members would also have that available.

If you're part of the MRC, and you're volunteering on behalf of the state, the state's liability also protects you, so you don't have to worry about ... someone trying to come afterwards and saying you harmed them in some way, and suing you personally for some kind of damages.

So there are certain advantages to being part of the Medical Reserve Corps and volunteering in that fashion. But, yes, there are a great many people who just are retired, they're interested in community service or one or the other or both, and they hear about these things through the local folks or through the state folks, and they just want to come and be

a part of it.

And there are the occasional people who come and ask lots of odd questions of us. I had one lady -- I won't tell you where or when, but she's a very nice lady, very ... into the class, and she came up to me at a break, and she handed me this whole packet of ... whole manila envelope full of papers, dog-eared papers, pages going this, that, and the other way, and she was like, you know, very, very concerned about the, you know, Department of Energy and -- and contaminating people with their, you know, waste processes and their nuclear power or nuclear weapons production facilities, and would you -- would you please just give this to your -- to your, you know, health physicists here in the state of Florida.

And I'm like ... well, sure, ma'am, you know, thank you very much. And we got back and we opened it up, and the lady had been corresponding with the federal government for years. She had letters and e-mails that she corresponded with, like, Janet Reno, when she was the ... the attorney general. You know, and she was just really, really, really

concerned. And, you know, it didn't all hang together, if you read it. It was, you know, a little bit of this -- somebody who wasn't into this, didn't really have a background or anything, and pulling together different stuff. She was very -- so, occasionally, I get folks like that. Just makes life really interesting in the classroom, to answer the questions. Keeps us on our toes, I'll tell you that. We never know quite exactly what we're going to hear.

Let's see here. I'm not going to show you all of these because there are far too many, but we'll get ahead to some of the ... ones that focus on the more recent times.

(Pause.)

MR. FUTCH: Yeah, I can see some of the pictures here. We got the portal monitor set up in this one. And we'll put a little check first on somebody and run them through. They'll be the victim, and they'll get practice using the hand-helds on real people as well as the dummies.

(Pause.)

MR. FUTCH: This is one from Pensacola.

Now this is Bill Roberts. He's our inspector in the Pensacola region, one of Jerry's inspectors. And ... the folks right there that are sitting there, a couple of nurses, I think, they've got that Strike Team Kit, and he's showing them how to use the ultra radiac to take readings.

And these two folks -- this gentleman here is -- I forget his last name, but David is his first name. That's his daughter. He actually signed up for the class with both of his kids. He's an MRC member out in the Pensacola region, was actually kind of, I guess, like one of the right-hand people for the local MRC coordinator out there. And that whole family was incredibly ... just ... you know, with it, ready to use this stuff. This young lady here just jumped right in and ... used everything properly. And they're actually taking some of the pictures.

The camera you see at the bottom of the screen -- not this particular one, but some of the other ones from this class, they actually took and shared their photos with us. And I think his son had to pull out at the last

minute, and just the daughter came.

There's the morning pictures from Pensacola, showing some of the folks with the kits open. And ....

(Pause.)

MR. FUTCH: Anyway ... I think that's it's for the volunteer part. Any questions? You can grab the lights.

DR. SCHENKMAN: You ever get people asking questions that are more of a suspicious nature?

MR. FUTCH: Oh, goodness, yes, yes exactly.

DR. SCHENKMAN: Is that why they're fingerprinting them?

MR. FUTCH: I don't know about that, because the thing you got to remember is this class is on the front end, so only a portion of these folks have actually been the through formal MRC process.

They actually recruit folks from this class. The MRC people love it because -- for example, Miami, we had 88 people registered for the class in Miami. There were so many people who had to move it, we got there the day before and went to the room where we were going to

have the class. It was actually in the health department. And the room held, like, 40 people comfortably. And, normally, that's not a problem for us because, you know, we normally can ... use some of the hallways and -- and we got to find a spot for the practical exercises. Well, we ended up on the second floor of that building, so we couldn't very easily just, you know, go outside and do what we normally do. We physically had to move it the night before to the Miami-Dade County Emergency Operations Center which, you know, is a huge facility.

And, Janet was so happy to get that call that night, because that meant that she and her staff had to go contact all those 88 people and tell them, "We're moving you to a different spot." And then the local Miami-Dade folks put some people out front and got everybody all referred to the other facility. And I think 50 -- you remember how many people showed up? It was 50 --

MS. COOKSEY: -- five.

MR. FUTCH: Fifty-five or so showed up at that facility. That's a pretty good class. You've seen the material. You've seen the kits

and the stuff you are going to get through. Out of that 55, in Miami, I think only about 15 of them were MRC members, maybe a few more. And everybody else in that class was brand new to the MRC. And that lady was -- she was in heaven. Michelle from -- from Miami-Dade County. She loved it because it was -- you know, she was recruiting. She was putting -- handing pamphlets out to everybody.

And so it's -- you know, it's also a big recruiting tool for people who haven't seen this, but are interested in some kind of volunteering.

Well, I don't have any more.

THE CHAIRPERSON: Time to break for lunch.

MR. FUTCH: Okay.

MS. ANDREWS: We've made reservations at the Macaroni Grill. It's not very far. There are very few restaurants around here that could accommodate our size group, so we made a non-democratic decision to where you-all could have lunch today. It is very good, though. So, hopefully, everyone will enjoy that.

THE CHAIRPERSON: What time do you need to be back?

MS. ANDREWS: We're scheduled to be back here at 1:30.

MR. FUTCH: It's 12:15. I think we're probably not going to make that but...

THE CHAIRPERSON: Okay. So why don't we adjourn at 12:15. We'll meet at the Macaroni Grill. (Recess.)

AFTERNOON SESSION

THE CHAIRPERSON: It looks like most of us are back, so why don't we get started.

(Pause.)

THE CHAIRPERSON: Okay, everyone. The next item on the agenda is a request from Dr. Williams.

DR. WILLIAMS: I can talk about it first, yeah. I mean, everybody will remember, a few years ago, when electronic brachytherapy therapy was emerging as a new technology. We had been concerned. We put some regulatory language in place that essentially coupled electronic brachytherapy to isotope-based therapy, isotope HDR, and that allowed us to maintain a level playing field -- and that's been fine. KV brachytherapy has not really emerged as a commonly used technology, it's

still sort of out there, but never really materialized as a -- as a, you know, commonly seen procedure.

Well, over the last few months, I had gotten two calls about the same thing, one from the Cary medical director or medic up in Jacksonville, Jim Cocoran. He's a good friend of mine. And he had brought to my attention some concern that he had about an orthovoltage user in South Florida who had been using the -- a -- a low-energy machine, not -- I don't know if it was KV brachytherapy. That was one of the questions I had -- to treat patients. There was some concern about -- about the necessity and, you know, quality and things like that.

And then I got -- within a short period of time, I got another call from a local dermatologist, a John Strasswimmer, and he's a -- a widely recognized sports and Mohs surgeon. He was concerned about another dermatologist who was using low-energy orthovoltage therapy from a company called Sensus. That's S-E-N-S-U-S, Sensus Healthcare. And he was concerned about medical necessity,

you know, quality control, things like that.

And so the question that I had -- and I want to put on the agenda to at least initiate a discussion is where do these Orthovoltage machines fit into the regulatory environment? I assume they're not KV brachytherapy; therefore, not really linked like electronic brachytherapy is to HDR-based, ISO-based therapy. And do we have any reason to take a closer look at it as far as who's doing it in the field, whether they're being checked by physicists, how they're calibrated, who supervises them, you know, the overall concern for public good, basically.

(Pause.)

THE CHAIRPERSON: What are they using it to treat?

DR. WILLIAMS: Skin cancers, a lot of them.

MR. FUTCH: Well, Mark, Jerry, do you guys --

DR. WILLIAMS: I can tell -- if I just did a -- quickly add up, just not an ambush or anything.

MR. BAI: We have a section inside of our

regulations that specifically deal with therapy type for superficial -- there's the Grenzs, there's the Orthovoltage energies which are separate from external therapy units like electronic therapy through accelerators, LINACs. But there's a very specific section.

As far as the regulation of it, I've only seen it -- they used to be prevalent in oncology centers, but I don't recall having seen an oncology center actually use one of these devices. It's almost exclusive nowadays for dermatology oncology treatment.

DR. WILLIAMS: I would agree. We used to have an Orthovoltage machine in our office, but it got to where we couldn't get parts for it, and nobody wanted to service it.

MR. BAI: They usually outlive the owners.

DR. WILLIAMS: In Bethesda Hospital just up the road from me, had the same fate.

These other devices are sort of standalone, portable, low-energy units. I guess they vary from --

MR. BAI: Are you talking about electric E.B.?

DR. WILLIAMS: No, orthovoltage.

MR. BAI: Oh.

DR. WILLIAMS: And I guess they resemble old orthovoltage machines, except that they're, I guess, newer and more affordable.

MR. SEDDON: I think the regulations, they go down a certain KV.

MS. FORREST: Yes, sir. Similar to the SRT-100. And right now they're considered therapeutic x-ray systems, and the rules are, if it's less than 1 MeV -- and that's where this is falling under. And, basically -- and forgive me if I speak out of turn, and jump in, and correct me -- that you had asked earlier, you know, where does it fall for regulations and calibrations.

Anything that emits less than 150, it falls under this therapeutic, and it's going to fall under our general guidelines. So it's going to be treated just like running this administration and any regular registration.

So, there's not going to be anything special that we're to ask them to do for calibrations. It's going to be for just regular inspections. We're not going to ask them to do anything special, because it's

emitting a low -- did I answer that correctly or incorrectly, or is that clear as mud?

MR. SEDDON: I think what you're saying is that there is -- below 150 KV is diagnostic, considered and --

MS. FORREST: Yes, sir. For therapeutic value.

MR. SEDDON: But then above that, we have Orthovoltage range, which requires calibration of a physicist. So those are -- we actually have Orthovoltage machines, an old one, like 50 years old that's -- not that old, but used really particularly in our oncology center, one of our oncology centers. So, yeah, they just do the annual check on it.

I'm not sure of the regulations as far as medical use of it, 'cause you don't really have a lot of regulations regarding brachytherapy, electronic brachytherapy where you have, you know, these requirements for position and training, things like that. They don't really have them on the machine side, so it's not quite the same.

Now, you're saying it goes down as low as 30?

DR. WILLIAMS: My understanding of the device, something that I've been able to find, is that these devices range from 50, 100 KV. I have not seen anything that's as low as 30 KV, but my understanding was that if it's under 30 KV, we have no statutory -- regulatory authority whatsoever, unless there's ....

THE CHAIRPERSON: What's the dosages they're giving?

DR. WILLIAMS: As near as I can tell, they give a variety of -- generally in long fractionation schedules that evolve out over five and six weeks, or smaller or skin donations.

THE CHAIRPERSON: So it's like using a fluoro machine for therapy?

DR. WILLIAMS: It's close. These are very low doses per day, and they're -- I mean, there are medical-necessity questions about it. I'm not sure if that's the purpose of this committee. My concern here is who's calibrating them, you know, who's got the T&E, and are we sort of looking at a hole between isotope-based brachytherapy, electronic-based brachytherapy, and

higher energy megavoltage therapy from the standpoint of T&E and --

MR. BAI: The units are required to be calibrated once annually by a medical physicist who is licensed. The actual therapy -- I mean, the actual annual calibration for these units will involve -- usually, it's a fixed KV unit on most of these. The only variable is time on these units. Besides that, they have different filters that you place in, so it needs to be calibrated with all -- each filter. And, basically, what they do is, they put, with calibrated ... dosimetry or electrometer in the final chamber.

But it's -- they -- usually, what they do is simply put an output at the treatment distance. Normally treatment distance is fixed on these units, and an amount of dose-per-unit time for each filter that is inside there. And, basically, it just comes out through a little chart. And then when the doctor plans out the fractionation schedule, he just simply correlates the amount of time it takes for that fraction and that distance with that filter.

MS. BONNANO: You have to have a license

to own this machine and to license technologists to use it?

MR. BAI: No. Most of the treatments that I have seen, the physicist comes in there once a year to do the calibration, but they don't necessarily have a physicist on hand. It's a consulting physicist that does it.

The treatment itself is usually done by the dermatologists themselves. In one case I think we had some PA's doing it down south.

MR. FUTCH: Yeah.

MS. BONNANO: Do you know where all these are?

MR. BAI: Yes.

MS. FORREST: They're registered.

MS. BONNANO: They are registered.

MR. FUTCH: What's the -- are we talking about a particular manufacturer or a couple of manufacturers, and does anybody know the name?

DR. WILLIAMS: The name of the manufacturer that I was given was Sensus. S-E-N-S-US, but I think they made one of the more widely known, but they're certainly not the exclusive provider.

MR. FUTCH: Is this the SRT-100?

DR. WILLIAMS: That is. But I'm sure there are others. The issue is not really Sensus. The issue is what, if anything, should we be considering differently from what we're considering now, if anything.

MR. SEDDON: Jerry, when you guys do your inspections of these type of machines, do you do anything above and beyond verification of the annual calibrations, or do you do more like a ....

MR. BAI: No, just go inside there. We ask questions. Who actually operates the unit. In this case, most likely the physician himself.

MR. SEDDON: Right.

MR. BAI: And then if it is not the physician, of course it has to be a therapy technologist that is operating it. And then we ask questions about all the variables such as, do you use the filters, and what distance do you treat at, if not just one fixed distance, and how do you collimate to the area of interest and all that kind of stuff. And we just make sure that the safety aspects are met, and they are inspected annually.

THE CHAIRPERSON: How does this differ from the regulations for the Orthovoltage machine?

MR. BAI: Same thing, Ortho, Superficial, Grenzs.

MR. FUTCH: Now, correct me if I'm wrong, but on the side of the qualifications of the user, we're not putting any of the electronic brachytherapy or materials-based therapy authorized user requirement on these folks?

MR. BAI: No. Electronic brachytherapy is a completely different track from the 64E-5.

MR. FUTCH: So, all the extra therapy-based things that are for those other devices don't apply to this particular --

DR. WILLIAMS: Right.

(Pause.)

MR. SEDDON: Do you see a need for that, Dr. Williams?

DR. WILLIAMS: Most of these -- most dermatologists aren't that interested in radiation therapy. And the ones that are, you know, generally have collateral motivation besides just primary good patient care.

MS. BONNANO: Do you think?

DR. WILLIAMS: And so if I could have anything that I wanted, I would have the same regulatory authority across the board for the use of radiological devices in a therapeutic setting. This has been the settled law of the land forever. This is not new. When KV brachytherapy came along, we had new technology to digest, and we had an opportunity to create a regulatory framework, and it's very compatible with high-quality patient care and quality assurance. To go back and die on the orthovoltage shield hill would be next to impossible. That would be probably a very, very difficult challenge.

I wouldn't say that I believe patients are being injured every day, you know, out there with it, but I think that the standard that the dermatologist uses for therapeutic use of these machines is different from a radiation oncologist, and substantially so.

(Pause.)

MR. FUTCH: How many devices do you think we have like this?

MS. FORREST: I don't know. Philip is pulling the record and that, and I haven't

received anything from him on that, and that wasn't his fault. That wasn't a request that he got relatively quickly. He's going through the J.R. numbers to see. It's not a very large number of them within the state.

DR. WILLIAMS: Probably a few dozen. I think, the Sensus website, just picturing in my mind the number of dots they had across the state, I'd say, maybe two dozen.

MS. FORREST: In his original assessment, Philip said he was thinking rough, off the top of his head -- he's usually pretty spot on with this stuff, if you knew Philip -- was less than 30. So that would tell you what you were thinking.

MR. FUTCH: When we had the issue with the PAs, we were talking about before, it was a really tiny number of systems that were involved. At least back then, I kind of got the impression it was -- the dermatologists had been doing this for a really long time, who were still doing this, and that there weren't too many other new ones coming in to kind of continue the tradition. Are you saying that's different now?

DR. WILLIAMS: What Dr. Strasswimmer was explaining to me is that in the state oncology meeting, these companies have assumed a much higher profile now and much more aggressive moving of their products in the dermatological field.

MR. BAI: So it's flipping around where it moved away from these units because accelerator electronic therapy was replacing these units, now it's going the other way.

DR. WILLIAMS: The pendulum swings in the long measure of time. In lots of different aspects of medicine, you know, the pendulum will swing back and forth.

You know, the healthcare system -- obviously, if you're pushing on one side, another side pushes out. And, again, most surgeries have been decreasing over time, will continue to decrease, and you get increasing restrictions on what can be covered. As you push on that side of the healthcare system, you can expect this other side of the system to ....

MR. BAI: You'll find that there's going to be hundreds of these units that are put on

storage status around the State. They're sitting inside these oncology centers, just sitting because they could not find a buyer for them. And if it is swinging the other way, why, buy a new one. You got the facility right down the street has a perfectly good, working unit that would be available, so --

DR. WILLIAMS: The economics of it are pretty strong just to buy a new device, and these -- many of these companies will offer turnkey operations. Take a few signatures, and you're in business, basically.

MR. BAI: How are the reimbursements? Usually, everything's tied into how the reimbursements go.

DR. WILLIAMS: It's quite high by traditional dermatological standards. A dermatologist will go on like a liquid nitrogen can and freeze seven lesions in about 45 seconds. They'll make a few hundred bucks. They traditionally have a strong, you know, reimbursement stream.

This is obviously not quite that potent, but it still does have a good code set behind it. Its code legacy goes back to radiation

oncology, not dermatology. And it's -- the reimbursement process of care resides in the radiation oncology, 77xxx series. And like any other fraction it's cost of radiation albeit at a low-energy level. It's not like IMRT, which is our big code fraction. But, at this level, over long courses of therapy, it reimburses quite strong.

The interesting aspect of it is that you don't need the long course of therapy, discretion in medicine being what it is. You can get -- we give six treatments for our skin-cancer patients. We have a very active skin-cancer program in Boca Raton, and many of these other places are giving six weeks of therapy, reimbursed by the day.

MS. BONNANO: There's ethics problem here.

MR. FUTCH: Yeah. How do you decide, the Radiological Society or the Florida Dermatological Society, from the standpoint of medicine, which is not the purview of this committee at all, but is there one -- is there a better way? Is there -- for the patient?

DR. WILLIAMS: There's no embedded process in the healthcare system to police these types

of discretionary decisions. We had worked with Jim Cocoran in Jacksonville on the LCD for T1 skin cancer, which is pretty good. There are some restrictions in it, but in certain circumstances, you do need to fractionate out to the long course.

If it's on the eyelid, for example, or on the lip, you don't want to burn it too fast or you'll get a lot of long-term -- short-term and long-term reactions. You need to get radiation slower. But on free scan, you give it in six doses, and you're done.

Now, a dermatologist who has no skill set in radiation biology, fibrosis, you know, long-term physics, you know, the consequences, the whole universe of radiation oncology, you know, scope of practice is going to make a decision maybe based on other factors besides just, you know, anatomical location and radiation biology.

THE CHAIRPERSON: It sounds to me that there's a valid issue here that needs to be addressed. And I don't know that we're the right group to do it right now, but maybe if the radiation oncologists come up with some

sort of position paper, recommendations, we could then consider the next way to go.

MR. FUTCH: Yeah. It sounds like a little more education needs to be done, maybe with some of the ways to explain exactly what the system is and what it does, and then probably ... have someone from the dermatological society --

DR. WILLIAMS: It would be interesting. I can talk to ASTRO, you know, and see if they have any facility to bring something forward on the national scene. But maybe -- and it would be interesting to have the dermatologist give a -- you know, some type of a ... response to what they feel is the appropriate T&E for these types of devices.

MR. FUTCH: If they were to presumably come up with their own standard that they feel should be maintained by dermatologists, it would be a lot easier to try and see if you can move forward with adopting some of that on regulations; not saying it's even possible in our current climate to adopt much in the way of regulations, but that would certainly be the most likely thing.

THE CHAIRPERSON: Alternatively, the payers could decide to bundle the single payment, whether it's got six doses or 30 doses?

DR. WILLIAMS: I'm not an authority on the commercial insurance side of skin cancer reimbursement, but on the Medicare side, everything is still in a -- in a component-coding methodology, RBRVS-type stuff, and probably will be for some time to come. But that's speculation.

Generally speaking, I don't like insurance companies', you know, leverage to control, you know, medical decision making. It's usually not the avenue I prefer.

I think it is an issue. I mean, there is a question as to what they're doing out there and what their training level is, and -- if any -- and whether they should have any type of expertise that was --

MS. DROTAR: Are they required to have a radiation-control program?

MR. BAI: Yes. Anybody with therapy units is supposed to have at least a rudimentary --

MS. DROTAR: How do they comply with that?

I mean, they're building their own --

MR. BAI: Well, I know that almost any oncology center --

MS. FORREST: I'm sorry, when you had your head turned, I couldn't hear what you said.

MS. DROTAR: No, I was just wondering how they comply with the radiation safety program since everybody has to have one, is everybody badged? I know it's a low dose, but is there any shielding or any other --

MR. BAI: They are not required to be badged on these units because they're never within the treatment -- well, you know what --

MS. FORREST: Well --

(Inaudible.)

MS. DROTAR: Are there other people that are around that are assisting the office, if that's within close proximity?

MS. FORREST: Well, the office itself, because it's such a low dose, if that door is shut and you're an office worker out there, you're not in --

MS. DROTAR: I doubt that --

MS. FORREST: They are supposed to have a

plan. How that's enforced, when the inspector comes, they review it.

MS. DROTAR: Yeah, but I just -- you know, when Dr. Williams pointed to that --

MS. FORREST: Exactly.

MS. DROTAR: This is something 'cause then that's something that's more enforceable on that side if it's already in place.

MR. BAI: These units are an order of magnitude, less sophisticated than --

MS. FORREST: I've worked on -- I've used superficial units, and when I did, it was inside another room, too, even though that's, you know, a low dose. But safety-wise, we were just, you know, using a room to monitor the patient. 'Cause it is, you know, couple of minutes sometimes.

MS. BONNANO: I think the problem is going from the radiation therapy situation to a dermatology situation. I wonder, did the vendor give them six hours of training, and that satisfies the state requirements? What training --

MR. BAI: In the state of Florida, a physician can use that unit.

MR. FUTCH: That's what I was saying before, there's no authorized user-type requirements for the position for these kinds of systems.

THE CHAIRPERSON: What about from the PA, if you decide --

MR. FUTCH: The Board of Medicine has informed us, many years ago, that the PA is able to do what the physician can do, if the physician says that's what they can do.

MS. BONNANO: Oh, so they can.

MR. FUTCH: Oh, yeah. I'm not saying there's lots of PAs doing it, but from the standpoint of our statute regulation, there's no way to stop that. That's a Board of Medicine thing.

DR. WILLIAMS: Well, from a ... definition standpoint, what is the difference between KV brachytherapy and Orthos brachytherapy? Because, from an engineering standpoint, the difference is that the probe itself has the electronical device, the analytic cathode in it.

MR. BAI: Well, one of them is a Tall brachytherapy, whereas the other one would be a

brachytherapy from within the REMS and Orthos. They're all external beam REMS, whereas the electronic brachytherapy actually catheters from the inside out.

DR. WILLIAMS: Not for superficial therapy. Electronic e-brachy is definitely superficial since it has a surface applicator.

MR. BAI: Correct. But it's all considered the same thing, external beam therapy.

MR. FUTCH: I think these are good reasons to seek more education, starting with rudimentaries. Maybe get them to come to future meetings and get them to explain what's going on. And if they could find somebody from a dermatological society or someone who is a shining example of how things should be done, come and talk about it.

DR. WILLIAMS: Dr. Strasswimmer would come.

(Pause.)

THE CHAIRPERSON: So you'll try to follow up on this next meeting?

MR. FUTCH: I think so.

THE CHAIRPERSON: Are you okay?

MS. FORREST: Yes, sounds great.
THE CHAIRPERSON: Any other comments?
MR. FUTCH: Any national standards, other states that have adopted something along these lines that we know of? Anyone?
MR. BAI: There are AAPM standards for this.
MR. FUTCH: In the --
MR. BAI: In your protocols.
THE CHAIRPERSON: Are there any appropriate use ....
MS. BONNANO: Is that state by state, or ....
DR. WILLIAMS: I don't know, to be honest with you. As to -- as to a user's guide, but I'm not sure it qualifies. It's more like an ACR, appropriateness criteria. Yeah, I think the right resources are AAPM and ACR.
THE CHAIRPERSON: Okay. The next item number is the approval of the bylaws.
MS. ANDREWS: You-all were sent a copy of the bylaws that were in revision format. And I incorporated any changes that you made into it. There was the -- a version -- the latest version that we had that I have updated. I

have copy of it in the packet. This would constitute the changes that we had, you sent to me. So if everybody is in agreement with these, I think the intent is to vote on these as the official bylaws. Or if anybody has any questions.

MR. FUTCH: What are -- correct me if I'm wrong -- what is it that has changed since we looked at this last one?

MS. ANDREWS: Basically, the Department of HRS, it was still 'Rehabilitative Services'.

MR. FUTCH: They had a 'Secretary' of State Surgeon General?

MS. ANDREWS: Exactly. We updated the Bureau of Radiation Control. I think it said "Office" before; changed from the Bureau, Chief of the Bureau of Radiation Control, was updated there.

Let's see what else might have been changed.

(Pause.)

MS. ANDREWS: And we decided to -- where there is a Department of Health, we would refer to it as The Department throughout.

(Pause.)

MS. ANDREWS: And so it was more so updating the departmental information, the Articles. The Composition and Memberships pretty much stayed the same. The Purpose stayed the same.

MR. FUTCH: Well, I think you've done a remarkable job of keeping it concise and brief.

MS. ANDREWS: And, yes, it is brief. It is concise. Unless you-all want any other changes made to it. As I said, this was what ... this incorporated the changes that were sent back to me from everybody.

THE CHAIRPERSON: Move discussion?

(No response.)

THE CHAIRPERSON: Do we have a motion to approve?

DR. SCHENKMAN: I make a motion to approve the bylaws as is written here.

MS. BONNANO: Second.

THE CHAIRPERSON: All in favor?

EVERYONE: Aye.

THE CHAIRPERSON: Any opposed?

(No response.)

THE CHAIRPERSON: We have new bylaws.

MS. ANDREWS: New bylaws.

THE CHAIRPERSON: Okay. The next item of business is the nomination of a chair and vice chair.

I'd just like to comment, I've been chair of this committee probably for about ten years right now. So I would certainly welcome a nomination from someone else who would like to assume these duties.

I guess the vice-chair is Randy?

DR. SCHENKMAN: That's me.

THE CHAIRPERSON: So both of these offices are open for nominations. And I encourage people to ... consider doing this.

DR. WILLIAMS: Can the vice-chair rotate up to the chair? Is that -- will the vice-chair rotate up to the chair?

DR. SCHENKMAN: If that's what you'd like.

DR. WILLIAMS: I think that would be fabulous, from my standpoint.

DR. SCHENKMAN: Well, we need another vice-chair.

DR. WILLIAMS: I would like to nominate Mark Seddon for vice-chair.

MR. SEDDON: Okay.

DR. SCHENKMAN: I'll second that.

THE CHAIRPERSON: Any other nominations?
(No response.)
THE CHAIRPERSON: So the motion is for Dr. Schenkman to be chairman, and Mark Seddon to be vice-chairman. Do you have to vote separately, or is --
MR. FUTCH: I don't care. I don't think it matters.
THE CHAIRPERSON: All in favor?
EVERYONE: Aye.
THE CHAIRPERSON: Any opposed?
(No response.)
THE CHAIRPERSON: Congratulations.
DR. SCHENKMAN: Thank you.
Congratulations. Thank you-all.
THE CHAIRPERSON: Okay. Is there any other old business that we need to discuss?
(No response.)
THE CHAIRPERSON: Anyone have any new business that they would like to discuss?
We just have 2:30 --
MR. FUTCH: When does the first plane leave that someone has to catch? I think 4:30. Is that good?
DR. SCHENKMAN: We're 4:50.

MS. ANDREWS: I want to bring your attention to our travel packets, though, before we close out.

I put travel packets before each of you. There are those of you who drove, and if you know your mileage, and you don't have any receipts to turn in to me, you can fill those out now, if you would like to, and turn them in to me.

Anyone who has receipts, of course, has to turn those back in later. I've given you a self-addressed return envelope for me. The instructions on top of the green papers should be self explanatory. If you have any questions though, let me know.

You have a worksheet included in your packet to fill in the pencil -- pencil in all your information, and there is one sheet in there that's for a signature only. And if you'll be kind enough not to fold it, just put it back in the brown envelope and send it back to me, I use this to put your travel voucher -- run your travel voucher on that signed sheet. So there's an original signature.

So, as soon as you get all of your

information and your receipts back together and send that back to me, I can complete your reimbursements.

I also have ... for those of you who either self parked or used valet parking, if you would let me know, I have discount vouchers for parking. And it's four dollars for self parking, and seven for valet. And I'll pass these down this way.

Anybody here?

MR. FUTCH: While we're on the subject of what was -- do we have some members who have --

MS. ANDREWS: That appointment packet has not come back, but it will be before Mark Seddon is going to be reappointed and Patricia Dycus, are the two people who were ... did I get that wrong?

MS. DYCUS: No, I just heard my name. What did I say?

MS. ANDREWS: Are the two up for reappointment beginning July 1st. And I'm just waiting for the packet to come back from the Surgeon General's Office, and I will send out letters after that.

MR. FUTCH: I was going to say that I have

got some of these videos that I can show, but I thought maybe you want to pick a date for the next meeting, and then ... if anybody has to slip out, it's no --

MS. ANDREWS: There's calendars in the very last tab -- or calendars -- for us to go through. And ... I didn't write in on yours the holidays. Pretty standard ones. The November 12 Veterans' Day. Thanksgiving is on the 28th this year, of November. Labor Day is on the 2nd of September.

Does anybody have any opposition to looking into November for this fall?

(No response.)

MR. ATHERTON: As long as it's early November.

MS. ANDREWS: Early November?

DR. SCHENKMAN: When you're saying early November --

MR. ATHERTON: You know, the closer you get toward the end, Thanksgiving and the holidays start to get busier.

MR. FUTCH: And we have the perpetual request from Jerome, who always has problems with May and October. But he wants to go

earlier, usually, right? Close toward summer and not later?

MS. ANDREWS: November is better for him.

MR. FUTCH: November is better.

MS. ANDREWS: And so the first Tuesday of November is the 5th, so -- and then right after that, I got Veterans' Day.

MR. FUTCH: So what about the 5th? Would that be --

DR. SCHENKMAN: That would not be good for me. My son is getting married on the 2nd. So I don't think I'm going to be back to Florida yet. Does it have to be a Tuesday?

MR. FUTCH: Not for my purposes. That's something that this group decided on a long time ago, and just kept going with it.

DR. SCHENKMAN: What about the 12th?

MS. ANDREWS: The 12th is Veterans' Day.

DR. SCHENKMAN: Oh.

MS. BONNANO: We don't want you to have to travel on a holiday.

MS. ANDREWS: Not again.

MR. FUTCH: Curses to Microsoft for not putting the holidays in Outlook.

THE CHAIRPERSON: Is the 19th too late?

MR. LAGOUTARIS: That Thursday, no. When will thanksgiving be, the 28th?

MS. BONNANO: The 19th is good for me.

MS. ANDREWS: Does the 19th sound -- is that good for you? Is that too late?

MR. ATHERTON: That's fine. That's fine.

MR. FUTCH: Try it.

DR. SCHENKMAN: The 19th works for me.

MR. FUTCH: We were talking about other times in the week.

DR. SCHENKMAN: Unless anybody wants to make it ... a day different, you know, a different day than a Tuesday.

MR. FUTCH: Like the 7th of November?

DR. SCHENKMAN: The 7th would be okay for me.

MS. ANDREWS: Is that better?

DR. SCHENKMAN: Is that okay for everybody, a Thursday?

MS. BONNANO: Sure.

MR. FUTCH: We're just breaking the mold, aren't we. Thursday. What kind of --

MR. LAGOUTARIS: Chairwoman for five minutes, and she's already shaking it up. Shake it up.

MS. ANDREWS: Okay. So we're looking at November 7th.

DR. SCHENKMAN: Right.

MS. ANDREWS: That's a Thursday.

DR. SCHENKMAN: So if that seems to work for everybody, let's do that.

MS. ANDREWS: So that means travel on the 6th for some people, so that's still okay.

MS. BONNANO: Yeah.

MS. CURRY: Us.

MS. ANDREWS: Us. Right. Some people, meaning us.

DR. SCHENKMAN: Let's start our new year with something new.

MS. BONNANO: Are we meeting in Orlando or Tampa?

MR. FUTCH: Oh, my goodness, another decision. Orlando or Tampa?

DR. SCHENKMAN: Oh, I like Orlando. What does everybody else like?

MS. CURRY: Orlando.

MR. ATHERTON: Orlando.

MR. FUTCH: We certainly have been in Tampa far more often, so I think Orlando -- we should try that for a while.

DR. SCHENKMAN: This was easy.

MR. FUTCH: Isn't Orlando a great place to fly in and out of?

THE CHAIRPERSON: About the same as Tampa.

MR. FUTCH: All right.

DR. SCHENKMAN: Okay. Anybody have anything else before --

MR. FUTCH: We start the film strips?

All right. Well, there's several videos here from the federal government's Domestic Nuclear Detection Office (DNDO), and we'll just start with the first one. And we couldn't -- we couldn't make the external speakers work, but we tried this in the room before, and we thought we could be heard, so we'll just try it with the laptop speakers and see how this goes. If I could turn this over when it's connected.

(Video clips played.)

MR. FUTCH: I'm very impressed, there was some bass to it. But, basically, that was a little snippet from all the individual training videos. We've got -- you saw the Suffolk County folks. The New York guys have been doing this for a long time. So DNDO went to them for part of the pre-event screening at ...

it was a baseball game. The Philadelphia guys were involved. The Los Angeles county people were the ones that had the Rose Bowl. And I didn't see the -- the Gulf Sentry crew in this one, but they have their own separate little -- separate little video.

Let me see if I can find that. Some other ... fisheries patrol. That sounds -- that kind of sounds like them.

(Video clip played.)

MR. FUTCH: So this is the boat from Carrabelle.

(Video clip continued playing.)

MR. FUTCH: So they use them, the Thermo RadEye, PRD RadEye.

(Video clip continued playing.)

MR. FUTCH: I don't know if anybody is from Panama City, but I think they actually shot this off the coast from there.

(Video clip playing.)

MR. FUTCH: Now, we actually couldn't, the day they were doing it, provide the real sources, so they faked all of the sources on this, so ... it's a little unrealistic to think it would pick up something from that far away,

and that those guys would still be there without experiencing some problems. But you know, it's Halloween.

So -- and that's the RSI detector that they've got. That's the screen. And they probably didn't know what to take a shot of to show you. So there's -- no idea what that is. Well, look, it's actually alive.

That peak looks about what a Cesium-137 would be.

So he's going to send some stuff to the national lab scientists, take a look at it.

The detector is right behind the wheelhouse on the back deck. It's that -- that large black thing over there.

MR. JOHNSON: Is that always on that boat?

MR. FUTCH: No. FWC rotates their detector between their helicopters and the large-vessel boats. Different parts of the state.

THE CHAIRPERSON: This is okay with sea water?

MR. FUTCH: So far. We have seen some systems from other manufacturers that were not self contained in the carbon fiber NATO pod. I

call it Mr. Spock's coffin, because it kind of looks like the coffin from Star Trek II, "The Wrath of Khan," but all of the important components are all internal. It's built to go on an aircraft. They put it on their cue, and then they moved it outside on one of the skids.

So, all of the connections that you're making are all inside. They're actually -- they actually use WiFi to deliver the data inside the pod, into the cabin. So there's no external connection to fail, unlike some other manufacturers which have some external connections.

We saw one of them that mounted it on the railing on another boat in a different part of Florida, and they had all this cabling, and they put the detector so that the -- the connector to the detector, which was encompassed by the wire, was facing to the bow, so that when the boat was moving, the spray was actually hitting the front of the detector. And they had the wires ... mounted to the rail, and the wires kind of looped down into the detecter like this. So as the wires caught the spray, the water would drip down, go right into

the connector in front -- that's not going to last too long. We told them about it. I don't know if they ever changed it.

Let me see what else I have.

Recreational boating. I'm not sure what's the different about this one. Well, the guy doing the talking with the white hair is Captain Brad Williams. He's retired now. But he's still a reserve officer with FWC. He was their statewide PRND.

(Video clip playing.)

MR. FUTCH: So the previous scenario was a fishing --. The FWC has lots of reasons to stop folks. They could stop anybody for just the safety check. They don't need probable cause.

Yeah. See, this is really a hard thing to do on a boat. You can't really make them go jump in the water while you're searching the vehicle.

(Video clip playing.)

MR. FUTCH: So he's just wearing that same PRD that he had in vibrating mode that was going off as he was talking about -- he was getting a reading on it.

(Pause.)

MR. FUTCH: So one counts per second, back 107 counts per second, and out on the water, because you've got the shielding and actually the material, it's almost zero in water, normally, unlike standing on land.

(Video clip playing.)

THE COUNCIL: Who had the cardiacs?

MR. FUTCH: We'll find out in a second.

(Video playing again.)

MS. BONNANO: What did you do yesterday?

(Video continued playing.)

MR. FUTCH: Sure, being told the source of radiation didn't help you today. His partners are going to throw him out of the boat.

(Video clip playing.)

MR. FUTCH: It's always at the house. It's always on the dresser.

(Video clip playing.)

DR. SCHENKMAN: How many of the officers are that nice?

MR. FUTCH: FWC is pretty good, at least the ones I've worked with.

MR. BURRESS: I got stopped twice in the same day at a Carrabelle office. Now I know

why. Don't take my sources fishing.

MR. FUTCH: Now, he didn't have the advantage of having the boat with the whole gamma spect system sitting on it. But they've got quite a few of the hand-held devices spread around the state of Florida. They didn't incorporate it into this training video.

But if he had had some reason to suspect there was something else going on, like there was something in the boat, and it wasn't obviously following a person who appeared not to have anything on them or anything else, he could have called for one of the RIID devices to come out there and help them until the guy got there with the RIID, and then saw that it was probably Tech 99 or something like that, with the scan. It only takes a minute or two to make the scan.

But we trained them that, you know, if there's not a reason to suspect that the person might be holding a device or a piece of a device, there's always the possibility that he could have been working on something, and it could be Cesium 137, causing the scan and maybe just not very good at working and keeping

himself from being contaminated.

But, you know, you look at the situation. The guys, they still have to use all their normal cop skills and abilities to make a determination not to hold a guy for, you know, half an hour or 45 minutes while somebody brought in a RIID.

But ... so that's -- that was the boat stuff. I think there's at least one more of these, choke-point things.

THE CHAIRPERSON: Anyone that has to leave, feel free.

MR. FUTCH: These might be the Philadelphia or the New York guys. I can't remember.

(Video playing.)

MR. FUTCH: Oh, it's Brad again. Okay.

(Video playing.)

MR. FUTCH: So this was an intelligence-driven operation, so they're going to set up a choke point with a couple of boats someplace, probably like underneath that bridge where there's a natural restriction, where they can put up some backpacks, radiation detectors, and have a pretty good chance of picking up a

source going through.

MR. ATHERTON: Is it as common to find boat sources as land -- as trucks?

MR. FUTCH: Not really. Although it's much easier to pick them up if you're close. But the only time they ever get close enough is if they're doing one of those boating safety checks, or they're having a choke-point-type situation ahead of time.

So they're taking the backpack systems which have Helium-3 neutron detectors, as well as sodium iodine crystals in them for gamma detection, and putting them all over the superstructure of the boat to get a good view.

(Video clip playing.)

MR. FUTCH: Just basic stuff. Tell them which side of the boat to put the detector on.

(Video clip playing.)

MR. FUTCH: So he's preparing them in case there is going to be more than one source boat coming through. They don't want to lose the whole control of the choke point, chasing after somebody who might be a nuclear medicine patient, when the real source is coming through right behind them.

(Video clip playing.)

MR. FUTCH: Okay. So the third boats have got the hand-held identifiers on them, and the other two boats that are on choke points are the ones that have the backpacks. That's the control system for the backpack. It's an LED type system. More bars means more radiation.

(Video clip playing.)

MR. FUTCH: Just trying to skip ahead so we get to where they're actually in the water.

(Video clip playing.)

MR. BURRESS: Do you-all have any problems with these crystals cracking?

MR. FUTCH: Yeah, the Raytheon trucks, which are the oldest ones in the inventory, are already having some degradation. In fact, Raytheon was supposed to be swapping out some crystals in Panama City, but the guy who was doing it couldn't make the trip, so they're going to have do it in a couple of months.

But DNDO bought scads and scads of these four-by-two's, and they're all sitting in the federal warehouse. And every time you talk to one, they're like, "You need some crystals?" And they won't ship anything less than a

pallet-full of them.

So you get -- anybody has space for eight four-by-two crystals hanging around in their office someplace? Let me know, because we want to store some.

(Video clip playing.)

MR. FUTCH: So they're just going to go out and set up a choke point. They do this on land too for stadiums and all the natural entrances. Oh, that's nice little traffic.

(Continued video playing.)

MR. FUTCH: So one and two are going to stay there and maintain the choke point, and three's going to go after him.

(Video clip playing.)

MR. FUTCH: That's convenient, right.

MS. BONNANO: That sandbar right there.

(Video clip playing.)

MR. FUTCH: And that little source in the troxler gauge is the next most common thing that people find after nuclear medicine patients. And then third most common is industrial radiographers doing work with industrial radiography camera, x-raying tanks and things and all the rest of it.

Well, that's all we have, folks. Hope you enjoyed the film strips.

THE CHAIRPERSON: Thank you, everyone.

(The meeting concluded at 3:08 p.m.)

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CERTIFICATE OF REPORTER

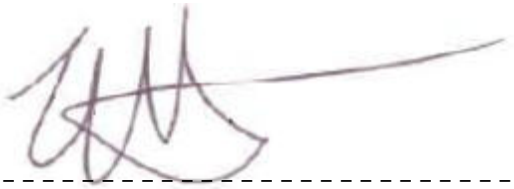
STATE OF FLORIDA)

COUNTY OF ORANGE)

I, RICHARD CASTILLO, Professional Court Reporter and Notary Public, do hereby certify that I was authorized to and did stenographically report, to the best of my ability, the above proceedings, and that the foregoing transcript, pages 3 through 135, is a true record of my stenographic notes.

I FURTHER CERTIFY that I am not a relative, employee, or attorney, or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED this 7th Day of June, 2013, at Orlando, Orange County, Florida.



RICHARD CASTILLO
Certified LiveNote Reporter
Notary Public, State of Florida at Large
Commission No. EE037170
Expiration: February 25, 2015