# ADVISORY COUNCIL ON RADIATION PROTECTION 

Bureau of Radiation Control<br>Hilton Garden Inn Tampa Airport Westshore

Tampa, Florida

Tuesday, May 24, 2016

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Reported by
Rita G. Meyer, RDR, CRR, CBC, CCP
Realtime Reporter and Notary Public State of Florida at Large

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ADVISORY COUNCIL MEMBERS PRESENT:
    Randy Schenkman, M.D., Chairman
    Mark S. Seddon, Vice-Chairman, MP, DABR, DABMP
    Armand Cognetta, M.D.
    Patricia M. Dycus, BS, RRA(R) (M) , RDMS
    Kathleen Drotar, M.Ed., RT. (R) (N) (T)
    Chantel Corbett, AS, CNMT, RT(N), RSO
    Efstratios D. Lagoutaris, D.P.M.
    Rebecca Coffey McFadden, RT(R)
    Brian Kent Birky, Ph.D.
    Mary Bridget Hart, M.D., ABIM, ABNM
    Paul Burress, CHP
    William W. Atherton, DC, DACBR, CCSP
    Stacy Lowe, MsEd. RT (R) (MR)
    Matthew Walser, PA-C, ATC
    Albert Tineo, CNMT
    DEPARTMENT OF HEALTH STAFF
    James Futch, Bureau of Radiation Control
    Brenda Andrews, Business Consultant,
    Bureau of Radiation Control
Allison Dudley, Bureau of Radiation Control
Kelly Nesmith, CEU Coordinator
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RANDY SCHENKMAN, CHAIRPERSON: If everybody is ready, we're going to get our meeting started.

Welcome, everybody. So this is the Advisory Council on Radiation Protection for the State of Florida and what we always do is start with introductions, so --

PATRICIA DYCUS: I get to go first?
RANDY SCHENKMAN, CHAIRPERSON: You get to go first, Pat.

PATRICIA DYCUS: Patty Dycus. I'm a registered radiologist assistant and I work in Orlando.

MATTHEW WALSER: Matt Walser. I'm a physician assistant. I work in orthopedics at the University of Florida.

ALBERTO TINEO: Alberto Tineo, Daytona Beach, Halifax Health.

STACY LOWE: Stacy Lowe. Chief program Director with Keiser University Tampa Campus.

KATHY DROTAR: I'm Kathy Drotar. I'm a radiologic technologist-therapy member and I am university department chair for Sarasota Campus, Keiser University.

WILLIAM ATHERTON: Bill Atherton. I'm a chiropractic radiologist based in Miami.

BRIAN BIRKY: I'm Brian Birky. I'm Executive All Good Reporters, LLLC (321) 285-2324 www. AllGoodReporters.com

Director of the Florida Industrial and Phosphate Research Institute and Florida Polytechnic University.

ALLISON DUDLEY: I'm Allison Dudley. I'm the executive director over the processing unit at the Department of Health that processes the applications.

BRENDA ANDREWS: I'm Brenda Andrews, the business consultant for the Bureau of Radiation Control.

JAMES FUTCH: James Futch, health physicist, Bureau of Radiation Control.

RANDY SCHENKMAN, CHAIRPERSON: Randy Schenkman, radiologist.

KELLY NESMITH: Kelly Nesmith, Department of Health, CEU Coordinator.

REBECCA McFADDEN: I'm Becky McFadden. I'm a radiologic technologist at Munroe Regional Medical Center in Ocala.

EFSTRATIOS LAGOUTARIS: Efstratios Lagoutaris, private practice podiatrist in Jacksonville, Florida.

MARY HART: Mary Hart. I'm a nuclear medicine physician. The chief at Bay Pines VA Medical Center.

CHANTEL CORBETT: Chantel Corbett. Nuclear medicine technologist, Fusion Physics, based out of Tampa.

PAUL BURRESS: And Paul Burress with Florida State University.

RANDY SCHENKMAN, CHAIRPERSON: Okay. So now that everybody knows who everybody is, can we have a motion to approve the October 6th minutes?

KATHY DROTAR: Make a motion to accept.
RANDY SCHENKMAN, CHAIRPERSON: Kathy. Do we have a second?

MARY HART: I'll second.
RANDY SCHENKMAN, CHAIRPERSON: Okay. Everybody in favor of approving, say aye.

ALLISON DUDLEY: Aye.
RANDY SCHENKMAN, CHAIRPERSON: Anybody opposed? (No Response)

RANDY SCHENKMAN, CHAIRPERSON: Okay. So we're approved.

Next is going to be Allison Dudley, who going to give us an MQA update.

ALLISON DUDLEY: Good morning, everyone. I'm going to start with the applications. I went ahead and ran our reports from January 1 until today and it looks like we issued 428 licenses for radiologic All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
technologists and two for radiologist assistants.
The average day that we are processing the applications is nine days. So a little bit of background. Statutorily, we're required to review an application within thirty days and either approve it or send in a deficiency letter, so that process for us is happening within nine days.

I know many of you have heard Gail Curry has accepted a promotion, which is great for her; sad for us. So we're kind of through the hump now. We have hired somebody for that position. His name is William Massey. He just started on Friday, last week. He goes by Sean, but his e-mail will be William.Massey@flhealth.gov. And so we're looking forward to him learning the ropes and he will be at the next meeting as Gail's replacement.

Gail still works for Medical Quality Assurance, so that's the good news. So she is a valuable resource that we will use her to help assist training Sean Massey.

A little bit with the changes going forward. I'm not sure if this was reported at the last meeting, so I'm sorry if I'm repeating this, but we have -- based upon legal advice, we are no longer issuing special licenses for magnetic resonance All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
imaging, so everybody is aware of that. That actually went through a lot more seamlessly than we thought it would. We have not got -- I think we've resolved those issues. We've given refunds to everybody that's applied and now the word is out that we're not getting very many of those applications now. So I think the word is out there and everybody is aware that you cannot get this special license anymore.

Finally, I have put everybody, just a little bit of a information about MQA online and even for anybody that has another health care license within the Department of Health, this will affect you in the future. Every profession is being rolled out to a new online portal system for applications. Radiologic technologists went live in April with this system. And, you know, we're still working -we're having many meetings. When you go live with something, you find out something's not working.

One of our problems was, I think we've had some duplicate applications and we fixed all -- we're fixing that right now. I don't know that I've had a lot of problems with radiologic technologists with that, but I'm keeping an eye on that. If anybody's using it; you have issues, let us know.

But once we work through some of these little kinks, it's going to be a much more valuable system to us because some of the things that licensees can do on their own is highlighted in this gray box. And one of the great things is that people can upload documents on their own application. So we want to reduce mail. And when you upload a document, then that's something we can take and put into your licensure file without ever having to print it. So -- and we can review it quicker.

So this is something that we've all been excited about at the department that should reduce licensure processing times in the future. So more to come on that.

And each -- for anybody that has a health care license, I know that it will be rolled out in different phases for different professions, but we were lucky enough to be one of the earlier professions and I think it's going pretty well right now.

All right. Does anybody have any questions for me? That was pretty much all I wanted to talk about. James?

JAMES FUTCH: No. Great news to hear that you got somebody to take over Gail's spot. I heard a All Good Reporters, LLLC (321) 285-2324 www.AllGoodReporters.com
little bit about Sean's history. He was call center person?

ALLISON DUDLEY: Yeah. The good thing about Sean is -- Gail's a supervisor that, she manages the team of, gosh, four processors, I believe. And actually, four processors and two, what we call Regular Specialists II, so they're a little more -they have a little bit more responsibility. So six processors.
(Armand Cognetta Enters the Meeting)
ALLISON DUDLEY: So we were looking for somebody with some great management experience. Sean has a military background, so he has some great leadership experience in the military.

Plus, he's actually worked for medical quality assurance. He started in the call center; worked his way into the enforcement section and for us, that's golden because learning our -- already knowing our computer systems and knowing how to -so to have somebody sit down that already knows our laws and can work in the computer very quickly, and with his management experience, we're really excited. I think everybody will be very impressed with him.

KATHY DROTAR: Quick question. I stumbled on All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
the webinars that you have for the online portal services --

ALLISON DUDLEY: Yep.
KATHY DROTAR: -- and thought that was very informative.

ALLISON DUDLEY: Okay.
KATHY DROTAR: But how are technologists going to be notified that this is what is going to happen or that, you know, program directors so that the students -- their students can apply online?

ALLISON DUDLEY: It should -- well, they should -- when you go to the website to apply online, it's going to put you through this. So it's not going to be that they really have an option, unless they somehow want to print up the paper application. We're still accepting paper applications. We would prefer people not do the paper application, but when they go online, they could go an ahead and do this.

KATHY DROTAR: They've been doing it online. I just wondered if that was a seamless operation.

ALLISON DUDLEY: It's seamless. It shouldn't --

KATHY DROTAR: If I hadn't been looking for information for my graduates, I don't know that I All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
would've stumbled on the webinar stuff. People that are licensed, are they going to be informed if this is --

KELLY NESMITH: It doesn't have anything to do -- I registered for it.

JAMES FUTCH: Do you know about it? Did you register for it?

KELLY NESMITH: I did it on the 26th of April, the first day it rolled out.

KATHY DROTAR: The webinar?
KELLY NESMITH: No, no. I went in and registered myself on the portal. You have to actually tell the portal what type of professional you are. It doesn't tie that directly to you. You have to pick that and once I registered, it was really easy.

KATHY DROTAR: But everybody is used to getting something in the mail and this is how I renew my license. And now if it's online, are our technologists going to be made aware that that's there?

ALLISON DUDLEY: It will be information when you renew.

RANDY SCHENKMAN, CHAIRPERSON: The postcard said it's time for you to renew.

ALLISON DUDLEY: Yes. Everybody is still getting that.

RANDY SCHENKMAN, CHAIRPERSON: This is how everybody is doing it. It has to be renewed online.

KATHY DROTAR: From what I heard from the webinar, you have to go in and re-register because that -- we weren't doing things online, but that is no longer -- you can't use that password. You have to go on and re-register yourself.

ALLISON DUDLEY: There will be information on the renewal card.

KATHY DROTAR: On the renewal card. So a card will be going out?

ALLISON DUDLEY: Cards always go out, yes.
KATHY DROTAR: I just want to make sure.
JAMES FUTCH: Who's actually -- Stacy, Becky, have you tried the new system?

STACY LOWE: I have. I sent my graduates through it. They just went through. It was fine. Oh, this is brand new? Okay.

ALLISON DUDLEY: It worked fine?
STACY LOWE: It worked fine.
REBECCA McFADDEN: I haven't, myself, and I know we just had our graduates go through registering and getting their, you know, doing their All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
temporary.
JAMES FUTCH: Temporary.
KATHY DROTAR: I had -- yeah, you know, and as the department chair, I've had information from my other program directors, and several of us, as we discussed earlier, had problems getting -- the graduates had to problems with getting their temporary license.

ALLISON DUDLEY: Right.
KATHY DROTAR: Thank you, Kelly.
KELLY NESMITH: Every one of them had one, but the one individual, he didn't apply for a temporary. KATHY DROTAR: Yes, he did. They all did. KELLY NESMITH: Okay.

KATHY DROTAR: They all do it at the same time under me watching them.

STACY LOWE: We watch them.
KATHY DROTAR: They are right there doing it.
JAMES FUTCH: The good news is you have a new person to go to.

KELLY NESMITH: Well, I'm always still available.

KATHY DROTAR: Thank you.
JAMES FUTCH: I think the other
question, my understanding was, correct me if this
has changed, the people who had accounts, who have been renewing for years, they were going to get information. And I think they had to create a new account because they didn't automatically change over.

ALLISON DUDLEY: No, right, right.
JAMES FUTCH: So you had to create a new account and then go back and grab your old license information and make the connection, yourself. I think that was the one step that was the moderately tricky part that she had them do.

KELLY NESMITH: It wasn't really tricky. JAMES FUTCH: It was not bad?

KELLY NESMITH: It took me five minutes. Probably the most confusing thing was I was doing it -- I don't renew until October, so I was doing it ahead of time in April. So that last screen, there wasn't anything for me to do. I didn't need to update my address, I didn't need to renew my license, and I went back and forth with that one for a minute.

KATHY DROTAR: So you can do it at any time?
KELLY NESMITH: You can. You can register in the system --

KATHY DROTAR: Okay, thank you.

KELLY NESMITH: -- any time.
KATHY DROTAR: We'll get that information.
RANDY SCHENKMAN, CHAIRPERSON: Anybody else have any questions?

ALLISON DUDLEY: And there is information, I believe, on here about the webinar.

KATHY DROTAR: Mm-hmm.
ALLISON DUDLEY: Yeah. If you go to the bottom, if everybody is interested, and you want to hand it out to anybody, feel free to make copies. At the bottom it says, learn from an expert. They'll walk you through the process.

KATHY DROTAR: I think something that was nice about the webinars was that they offered to do, if you had a group of people, they would do one and schedule one. We just sat through it.

ALLISON DUDLEY: Mm-hmm.
JAMES FUTCH: One more thing. One of the last conversations I had with Gail was when this came out, I think she got a request from whichever party or organization does the application to societies.

ALLISON DUDLEY: Mm-hmm.
JAMES FUTCH: I think they sent something to FSRT and FNMT. Did you see anything come through?

KELLY NESMITH: And to the ASRT.

JAMES FUTCH: Anybody see anything come through? Did the societies mention anything?

CHANTEL CORBETT: Not especially. No. I'm the president. I should have seen it.

KELLY NESMITH: Well, that's the information I provided.

CHANTEL CORBETT: Just saying that this was coming up.

KATHY DROTAR: So I can mention about it.
JAMES FUTCH: Anybody who has you know, any influence --

ALLISON DUDLEY: Okay. That would be great. CHANTEL CORBETT: I'll ask him.

JAMES FUTCH: We can send it again if we need to.

CHANTEL CORBETT: We've got the e-mail addresses for most people now as they register for FNMT. So we can do a mass e-mail and let them know.

JAMES FUTCH: Have you gone through the first online renewal?

CHANTEL CORBETT: I have not yet.
JAMES FUTCH: It's since April, I guess.
ALLISON DUDLEY: April is when we went live. April 12th.

CHANTEL CORBETT: Yeah.

JAMES FUTCH: The other thing I heard that was great about it, which you can actually upload a document.

ALLISON DUDLEY: Right.
CHANTEL CORBETT: Right.
JAMES FUTCH: Sending a fax or snail mail will eventually get matched back up with your account in Tallahassee.

ALLISON DUDLEY: Well, that's where we get delayed in processing times is because people send a fax and they think, well, maybe I'll e-mail it, too. Well, every time you send us two documents, that means -- the processors can't memorize somebody's name, so they're not going to say, oh, I just got this person's fax. Now they have to open up the application, and oh, no, it's a duplicate. And then, you know, so that always takes time. So uploading documents and people utilizing that feature will be great.

JAMES FUTCH: And one more thing I wanted to mention. You have in your packets, something that looks like this (indicating). And this was something that the department produced general information with lots and lots of numbers. I think the statisticians went overboard. This is chock All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
full of numbers. One page of this does pertain to MQA. It's got a page on your -- percentage of time reduced to, I think, renewals or something.

So a little bit of something for everyone in the Department of Health.

MARY HART: What page?
CHANTEL CORBETT: Ten.
MARY HART: Ten?
CHANTEL CORBETT: Yeah. Do you know how long the webinar is?

KATHY DROTAR: It was a half an hour. And they allowed about ten to fifteen minutes for questions that you could type in.

CHANTEL CORBETT: Okay. All right. I was just thinking we might be able to figure out how to work that into the meeting, actually.

KATHY DROTAR: I think there's another one in June that's scheduled.

ALLISON DUDLEY: Right. They are scheduled.
KATHY DROTAR: But then, they'll do one, arrange with the group --

CHANTEL CORBETT: Arrange with the group.
KATHY DROTAR: -- which I thought was really nice.

RANDY SCHENKMAN, CHAIRPERSON: Next, what we All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
would like to do is talk a little bit about Paul. (Laughter)

PAUL BURRESS: Should I leave?
RANDY SCHENKMAN, CHAIRPERSON: No, you
definitely should stay. But Paul is leaving, so we wanted --

JAMES FUTCH: Basically --
RANDY SCHENKMAN, CHAIRPERSON: James wanted to talk a little bit and then we have something we wanted to give you.

JAMES FUTCH: We have had a lot of council members over the years. You can go to the website and see every single person who's ever served on the Council. I took over the Council -- it was created in 1978, I think was the initiation. And it's part of Florida Statute 468. It started with fewer members than we have today and it's expanded over time and a couple of additional positions they added over time were certified health physicist, environmental expert; some of the non-medical folks on the Council.

And I started with the Department in '88 and went to a few meetings. It wasn't in my purview in the very beginning. And in '98, I took it over and I ran it until 2005, when we had the internal merger All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
with MQA. So I've seen a lot of council folks over the years and every single one of you have helped me out tremendously and your predecessors as well.

This is such an important part of what we do for the Department, especially for the Bureau of Radiation Control because, you know, we have staff inside the Bureau who come from various and sundry walks of life, but people view us as the government, right, so even if we say something, it doesn't necessarily mean that it's right or people will listen to us, at least fifty percent of the time or, so, we need a little correction to a direction something is going in. So we really heavily count on the guidance from all of your personal experiences, your professional experiences, the professional associations that you come from and represent.

And I thought back over the years, we haven't been able to do this very often, but Paul is actually moving on -- physically moving from the State of Florida. You can say more about -- all the details that you want to talk about, but we wanted to just take a moment and say thank you.

PAUL BURRESS: Thank you. It's been a pleasure.

JAMES FUTCH: I've had lots of conversations with Paul over the years. Health physicist meetings. He happens to be located in the city of Tallahassee so a few folks end up being really, really go-to Council members because they are right here or various reasons. So Paul's actually seen the, one of the newer areas that's kind of dear in my heart, the whole law enforcement, the big detectors flying in the sky. I don't know if you've actually -- have we ever actually gone up in the air? It's probably a good thing, actually. PAUL BURRESS: No. All ground stuff for me. JAMES FUTCH: So I just wanted to take a moment to say thank you. And I don't know if anybody else wanted to say anything. We have a little something to give him in just a second. But I open up the floor in case -- do you want to say anything?

PAUL BURRESS: It's been a pleasure. And ten years go by fast. I guess that's twenty meetings and it doesn't seem like it's been that many. Going through my drawers getting ready to move, though, there were a lot of notes in there.

I really appreciate this packet, Brenda, so thank you for that.

BRENDA ANDREWS: You're welcome.

PAUL BURRESS: But I remember sitting at lunch with Dr. Schenkman and Bill Atherton, I think, started when I did, same meeting. We were a bit behind, so there was a lot to talk about and I remember --

WILLIAM ATHERTON: It was a two-day meeting.
PAUL BURRESS: I remember thinking everybody here is so much smarter than me. I'm not going to last very long. I guess, thank cabinets (ph) for ten years and thanks to all of you.

RANDY SCHENKMAN, CHAIRPERSON: Well, we just really appreciate all that you've done for the Board; all you've done with James and all you've done for the State of Florida. So we would like to present you with a plaque.

PAUL BURRESS: That's nice. Thank you.
RANDY SCHENKMAN, CHAIRPERSON: Thank you for all that you've done for everyone.

> (Applause)

PAUL BURRESS: I'll show my boss I really did come.

JAMES FUTCH: Yeah, see, I wasn't just fooling around in Tampa all the time.

WILLIAM ATHERTON: Where are you heading, Paul?
PAUL BURRESS: I'm heading to Tennessee. My
wife got a promotion. She works in health care, so she makes a lot more money than me. The VA was nice enough to hire me on, so I'll be working for the Veterans Administration in their Vanderbilt campus. MARY HART: Good. That will be great. PAUL BURRESS: So it will be fun. RANDY SCHENKMAN, CHAIRPERSON: Best of luck. PAUL BURRESS: Thank you.

RANDY SCHENKMAN, CHAIRPERSON: Anybody else have anything at this point to say?

Okay. So next we're going to go to Chantel. CHANTEL CORBETT: I just contacted the NMTCB to see what the status was on the CT standards and how they're operating and trying to figure out a way around getting either an agreement with the ASRT to use their standard, or to go ahead and move forward with adding the NMTCB into the ASRT standards. Their legal counsel says it's going to be a year or less before the ASRT standards are revised, so it's probably in their benefit to just wait to do that.

So they have updated us with, hopefully by the end of next year, that it is on their agenda to add the NMTCB credential to the ASRT standard. The Joint Commissions recently approved their new standards, which do include the NMTCB CT credential
in their requirements.
They have created a -- this is their petition here, so I'll leave it if anybody wants to look over it later. But basically, they are going to wait at this point. So it's going to be probably the end of next year before that credential is included.

JAMES FUTCH: And if you remember the back story to this, NMTCB created a CT registry. A couple classes have graduated now and we have a CT license that we issue for Florida by endorsement from the National Registry, but it's ASRT's CT credential that's essentially in there and our practice standards for Florida CT is the practice standard that Chantel was just talking about, which is the ASRT CT practice standards.

In the previous Council meeting or two ago, we talked about this. We had the presentation from, I don't remember his name. CHANTEL CORBETT: Cybil. JAMES FUTCH: Cybil, yes, exactly, and she went into all the details. And I think this was the biggest issue that the Council had and that the rule would have too in order to adopt it. It would be most wonderful if the two can work it out and we actually get the NMTCB CT credential into the
practice standards so we can go through the process and readopt those and formally recognize that also, which is what the Council is looking for.

So we're making progress. Chantel's been a great help.

CHANTEL CORBETT: We get e-mails on a weekly basis from either people moving into Florida or people who have graduated who have been told incorrectly by their instructors, classmates, you know, co-workers, whatever it may be, you know, that they get the CT exam done and take all the time to do that and then they can't get a license that they expected.

We have had one person e-mail, two weeks ago, through S\&M, that actually was hired on for a hospital here in Florida to do CT , and they did not have AART, and so, for some reason, the hospital wasn't aware that they required the CT license to do that. So there was a little confusion there. But we -- they got a second job, and they're kind of holding their position. They are letting them do part time nuke med until hopefully this gets moved forward next year.

JAMES FUTCH: We very much appreciate you letting us know and keeping that information fresh. All Good Reporters, LLLC (321) 285-2324 www. AllGoodReporters.com

CHANTEL CORBETT: No problem.
JAMES FUTCH: The conversation I had with Katy was very productive and just let us know.

CHANTEL CORBETT: Yep. I'll let you know as soon as I know.

RANDY SCHENKMAN, CHAIRPERSON: Hopefully we'll take care of it one of these days.

CHANTEL CORBETT: Yeah. It will get there.
KATHY DROTAR: What I heard from ASRT was that if that goes to the Board this year, then it would go to the 2017 House of Delegates for a vote. CHANTEL CORBETT: Right. That's why they are expecting it by the end of next year. Yep. JAMES FUTCH: All right. Any questions; thoughts?

RANDY SCHENKMAN, CHAIRPERSON: Okay. Next, we'd like to introduce Stacy Lowe. James has a few comments and I know Kathy probably does, too.

JAMES FUTCH: Following a little bit of what Allison had mentioned about a repeal of the $M \mathbb{R}$ license, give you a thumbnail sketch in Florida. If you don't remember, we had the law changed in 2012 that gave us the authority to establish the specialty techs. At that time, we established, or in 2013, we established CT, mammo and MR. And All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
shortly thereafter, PET. And then some time last year, the lawyers took a look at it and decided we didn't have the authority to issue the license for MR .

But along that line -- and we just finished reviewing this, as Allison mentioned. So I went and looked at the statute. I'm trying to pull it up here for a second. Let's see here. Give me just a second. Let's see if that works.

Yes. Florida Statutes. Still 2015, I guess. It isn't quite the new ones have been adopted.

ALLISON DUDLEY: Not out yet.
JAMES FUTCH: Not yet. So if we go down to -this is actually the section on the Advisory Council. And these were all the duties and this describes the make-up of the Council. And one of the thing, we go way down to the bottom, get past the make-up of the Council, you get to what the Council does. Right here, if you can see that.

The Council may recommend to the Department examination procedures for applicants and requirements for qualifications. Council shall, all these things.

And then we come down to the one on the bottom. Number four, study of the utilization of mechanical
imaging and non-ionizing radiation such as nuclear magnetic resonance or similar related technology and make recommendations to the Department on the personnel appropriate to conduct such procedures and minimum qualifications for such personnel.

So in a rather convoluted way, this particular statute was written, this is the statute that does not give us the authority to actually certify people to operate NMR which, of course, is the proper name for what we call MRI. It does, in fact, give us the authority to study and make recommendations on it from this Council. Okay. Put that in your thinking cap and cogitate on that one for a while.

But given this, and given the fact that I think a lot of folks felt the $M R$ certification was the right thing and important thing to do for various reasons, we thought that we should move forward at this particular Council meeting, actually talk about $M R$ and what it is and what it entails, and perhaps even make some recommendations to the Department on the personnel appropriate to conduct such procedures and such things as that.

So along those lines, you'll notice the agenda says Mark Seddon. Mark has been held up and he is on his way here. He's going to actually give us a All Good Reporters, LLLC (321) 285-2324 www.AllGoodReporters.com
little bit of the medical physicists side of what $\mathbb{M}$ is and what the hazards are and so forth and so on. And the flip side of that is Stacy was going to be here this afternoon and help us understand a little bit about the practice side of it because Stacy, in her role -- well, she has several roles. I'll let her introduce herself. But she's the Keiser Tampa Campus Radiography Program Director and also happens to be a person who is $\operatorname{MR}$ licensed at the ART.

STACY LOWE: Since inception.
JAMES FUTCH: Since inception. So I will toss it over to poor Tracy and Tracy doesn't actually -Stacy, I'm so story. I keep calling you Tracy. Slap me.

STACY LOWE: They do it.
JAMES FUTCH: Stacy actually very, very kindly agreed to be here. We kind of put her on the spot at the very last minute. There's not, like, a PowerPoint, but we do have someone who has a great deal of knowledge and take it away, Stacy. STACY LOWE: Hi. Thank you for inviting me to be a guest here at the Board today. A little bit about myself. I've been a registered radiologic technologist since 1989
straight from high school. And went to tech school, so I've been in the field for many, many years.

I took my first teaching position in 1997. So I've been in all different positions with the RT program. I've been an instructor, I've been clinical director; clinical coordinator. And for the last seven years, I've been the program director here at Tampa Campus.

When I got my certification, it was in the mid-90s. During that time, there wasn't any requirement at all except for taking the Board. Okay? So how I did that, I just went to a one-week seminar in Winston Salem, and then I went -- I studied a little bit and went and took my Board.

So as the years have progressed, our technology has increased; our responsibilities have increased. So now, you know, CT and $M R$ are coming up the back side because the requirements are going to be structured educational requirements.

By 2018, if you want to sit for your MR/CT board, you will have to complete structured education from an accredited institution. Currently, the structured education is through the ASRT and it's sixteen hours of continuing education. So right now, we're in the interim where folks All Good Reporters, LLLC (321) 285-2324 www. AllGoodReporters.com
can -- there's not that much more requirement. They still have to do competencies just like an RT would. However, these structured components starts in 2018.

So as our profession has evolved, so have our standards. We have full curriculums now. We have Associate's degrees and BS degrees in magnetic resonance imaging. So you can go get your degree, you can get your ASRT -- your AS Associate degree in magnetic resonance imaging or you can go through a BS degree program and get it through a track, a certification, or just post primary. So at that point, you would just complete all the requirements set forth by the AART, which they're becoming more strict for 2018.

So with that being said, I think it's an natural evolving to the point where we have to have licensure for all of our modalities because of the standards of care set forth by the Department of Health and Human Services in 2012, they required all facilities that have -- that want reimbursement, the technologist has to be credentialed.

So right now, we have folks that may be working at facilities that do not have Medicare, Medicaid reimbursement, but for the facilities that do, they have to have the credentialing. So I think as the,
you know, the standard of care, we need the certification, the licensure for the State of Florida in magnetic resonance imaging.

MARY HART: Did I understand you to say now they can get credentialed for $M R$ with sixteen hours of didactic plus competencies?

STACY LOWE: That's correct.
KATHY DROTAR: That's in addition, though, to having been certified in whatever other modalities was your primary.

MARY HART: Right, I understand that. Wow, that's much not at all.

STACY LOWE: It's a minimum, yeah. So I, for one, I am happy to see our standards improving. It's been a long time to get here.

MARY HART: And that's a national level certification?

STACY LOWE: Yes, ma'am.
MARY HART: That's pretty minimal.
STACY LOWE: Yeah, it is.
RANDY SCHENKMAN, CHAIRPERSON: Do you know how many hours the Associate degree is versus the BA?

STACY LOWE: Cumulatively, an AS degree is 60 hours and the BS is 120, so it just depends on the curriculum set up. If it's just for $\mathbb{M R}$, then, of All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
course, they have much more education and I didn't really do any specific research on the $A S M R$.

KATHY DROTAR: There's some programs in Florida that have an $\mathbb{R}$ component to it, but there aren't any actual approved schools in Florida currently. To get those, before the AART puts in that sixteen hours, they were -- there's some companies that will come in and you can go for, like, three weeks and get trained and do all of the competencies because there's also a competency requirement that you have to be signed off, and I think it's 75 scans that are approved by somebody who is $\mathbb{M R}$ registered and is current in that certification.

MARY HART: And will they be grandfathered? Anyone who's registered now as an $M R$, they won't have to redo anything, correct, if the standards increase?

KATHY DROTAR: Because they're already registered. But they will have -- there is a 24-hour continuing education credits that you have to do to keep your registration current.

MARY HART: But they're not necessarily MR specific, correct?

KATHY DROTAR: Every ten years now, starting in I think it's '21, that there's a ten-hour -- or I
mean a ten-year renewal that doesn't have to be a registry. But it's a self-evaluation and RA people have already gone through that process. And that the AART is going to look at, we're going to fill out a self-assessment and then they're going to see where you are and recommend specific areas for you to --

KELLY NESMITH: It could be up to fifty hours. KATHY DROTAR: Fifty hours, right. It's a process. Because we're out of the medical professions, we're behind doctors, behind nurses, and as the technology increases, like Stacy says, the technology increases and the knowledge and the scope of patient care is being expanded as well. MARY HART: Yes.

CHANTEL CORBETT: The problem is, too, it's kind of like the chicken or the egg. It's kind of with the CT license. For a long time, there was no specific CT license. So the few programs that were out there, specifically for $C T$, kind of died off because there wasn't any point.

So now that the CT license is back, now we've got people trying to reenergize those programs and get them started again. So it's going to be kind of probably the same thing, where if we really start All Good Reporters, LLLC (321) 285-2324 www. AllGoodReporters.com
pushing the licensure and the advanced certificates for $M R I$, then $I$ think that you will see more the programs rebuild, you know, and get these specific modality programs. Because a lot of technologists don't want to waste time and money to go take something that's not going to do you any good, quote unquote.

STACY LOWE: Right.
KATHY DROTAR: And I think after Mark's presentation from the physics side with the safety concerns and the Joint Commission, one of the reasons the Joint Commission is saying the certification is because there are -- there were so many different accidents and that patient safety was a sentinel event that $\mathbb{M}$ is a, you know, kind of something waiting to happen. Somebody comes in with, hasn't been scanned and our students have to go through a protocol on campus and then they go through the different protocols because depending on which zone of the $M R$ that they enter.

So if there's -- it's that coming of age of technology where we want those certified people, people that are more than just knowledgeable. People that really know what they're doing and educated in that.

MARY HART: There's also so many imaging protocols with the $M R$. If the ordering radiologist isn't very specific, you know, it's nice when the technologist recognizes that maybe it wasn't worded perfectly for that indication and then gets in touch with the radiologist because otherwise, they get non-diagnostic exams and have to have repeats.

We just had a Joint Commission survey inspection about, I think it's been two months, but they looked very carefully at $\mathbb{M R}$ at the Department. The safety; the knowledge of the people there. I mean, we did well, but --

ALBERTO TINEO: This is going to be just like CT. We should not be waiting for what happened in California for us to prevent accidents from happening. So we should always regulate as much -I hate regulations, but I think this is one of the ones that patient safety is what we're all about. And is the technology that is -- everybody thinks that it's nothing wrong with walking into an MRI scanner, but there's a lot of things potential can happen to you, from burning, to create -- if you're not screening correctly, like she said, or just by bringing a patient into the MRI scanner. I mean, there have been accidents where 02 tanks have gone All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
into the scanners; patients being hurt badly from it.

So it is one of those technologies that you cannot ignore. I mean, it is -- and like the Joint Commission took the side for it and they're coming in and they're asking if your technologists are certified in a specific area, such as CT and MRI.

And so we should -- it's a safety issue. It's a patient safety issue.

CHANTEL CORBETT: There are classes now, too, that with exams, for the technologist's level, director level, and physicist's level for magnetic radiation or, I guess -- I don't know exactly if they're saying radiation/MRI, but it is MRI safety officer courses.

So that's one of those things -- one of our physicists just went and took it up north. So it's an interesting class. A lot of it, they have three separate exams, depending on what you are in your work environment. But they are getting to the point where they expect every hospital to have either somebody on staff or somebody consulting that's immediately available.

ALBERTO TINEO: There's a lot of safety that you have to have. And, of course, the hospitals are All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
number one areas that gets -- all the regulatory agencies are making sure that their standards are being met because we either have the Joint Commission or the other agencies, but it's huge.

KATHY DROTAR: The JRCERT, the citation agency programs, has mandated that all programs include $\mathbb{R}$ safety within the radiation safety program. So that's something that everybody has had to put in place, too.

And, you know, going back to what James said about the duties of the Council, that our main duty is to make sure that there is radiation protection for the people in the state of Florida.

JAMES FUTCH: I think, when I go back and think about this and look at it a little bit more, this was created in the early 1980s, this section. So I think somebody had the foresight to recognize that even though they built the statute that double ionizing radiation --

ALBERTO TINEO: I would think the safety issue hasn't changed any. In fact, it has gotten probably more.

JAMES FUTCH: I remember when I first started working for the Department in '88, there were questions about $M R$ and $I$ was looking for something.

And there were two doctors who were out there, Shellock and Kanal who wrote a book, which I went to buy a copy of. Here's all the hazards with $\mathbb{R}$ safety. I think one of them moved on to do something else or they went to a different facility. One of them is still involved. And for many, many years, one of their biggest contributions was that they put together a database of all of the different kinds of implants and other things that you can put in the human body and what they were made of and whether or not it would be something that reacted on by the magnet in the body or not.

I don't know if that's still the go-to or not. Hopefully the manufacturers are now thinking forward.

ALBERTO TINEO: It's maintained. You have to maintain it through the manufacturer.

JAMES FUTCH: Yeah.
ALBERTO TINEO: If you're going to scan a patient, somebody has an implant, you have to check to see what year was it, what was used, and whether it's an approved device that you can scan the patient. Some patients cannot be scanned.

WILLIAM ATHERTON: Also, the scanners today are much stronger and their rate at which they scan is
much faster, so it's even more important today than it was in the 80s.

JAMES FUTCH: Just for, again, Mark Seddon is going to talk about this in more detail, but many years ago, myself and a former bureau chief went before the committee of the Legislature to talk about some part of the statutes to include more authority in the non-ionizing area. And I remember one of the things that they wanted to know, of course, were what are the hazards and their terminology, were there any dead bodies and why are you worried about this? And I don't think we actually got much of a chance to explain.

But when you look at the hazards, you know, there are different kinds, there are different areas, there are some radio frequency components and different unapproved testings, you can burn patients that may not be able to feel it, quadriplegics or paraplegics. There's the projectile effect from the intense magnetic field. I'll let him speak to all that.

But, you know, to me, looking at it from the outside, it certainly seems like there's enough issues that if there's some way out there to make sure that the people who are doing the -- operating
the equipment, to screen the patients properly and separate from the whole medical, did you do the right diagnostic image, there's the safety side of things. But this, I think, is kind of telegraph that somebody expected the Council, maybe it wasn't as widely used, I don't know in the early 1980s as it is. I'm sure it's not.

STACY LOWE: No, not at all.
ALBERTO TINEO: It wasn't. It was the beginning.

REBECCA McFADDEN: So can I ask a question? Is the proposal to change the way that it is written to identify that this Council do have recommendation, and I guess my second question is, is it up for discussion as far as MRI becoming a licensed profession through the Department of Health, because right now, obviously it's not.

JAMES FUTCH: Yeah.
REBECCA McFADDEN: So the topics that we're talking about, are they up for review and is it something that be changed at this point or is --

JAMES FUTCH: Well, we, from time to time, as the Department, get the ability to suggest things, be changed legislatively. It's a long and tortious process and we've been through this.

REBECCA McFADDEN: Right.
JAMES FUTCH: It starts with us and our division, and then it goes to the State Attorney General and the State Attorney General has purview of the entire Department of Health. All of the things you saw in that book. And gets to pick a couple issues that are highlighted. And it goes -if it makes it through that, it goes to the Governor's office. If it goes through that, it goes to the Legislature and so forth. So it's very hard to change laws.

But the statute says we have the authority; in fact, responsibility to, is to study the device, and to make some recommendations about what kinds of folks would be appropriate. So I think the intent --

REBECCA McFADDEN: The goal of this --
JAMES FUTCH: -- of this is to form the foundational record of what we may eventually be able to present to the Department on what to do. Whether they choose to accept it or do anything with it is entirely out of our control.

REBECCA McFADDEN: Right. And are other states, I guess, are they licensing MRI professionals or are we -- were we one of those who
were doing it?
JAMES FUTCH: I don't actually remember the numbers. When we went through this back in 2013 to do it the first time, we had a little survey of some other states. I don't know how many it is.

KATHY DROTAR: I don't think there's that many. Maybe Texas or California, New York.

REBECCA McFADDEN: So there's not many states who are currently licensing $\operatorname{MRI}$ for their $C R$ ?

KATHY DROTAR: I think that goes with the type of licensing that each state does because it's so different. Florida has always been on the forefront of protecting citizens, so that we have real solid documentation about why things are needed and that the certifications and licensing that's there, meets with those national standards of all of our respective societies.

But I don't think, partly because it's new and I don't know that outside of the Joint Commission, the physicists and the technologists that use the equipment, that there are that many people that are aware of the dangers because there's no x-ray involved.

REBECCA McFADDEN: And there is a national registry for the $M \mathbb{R}$ which you say is the All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
sixteen-hour education and some competencies and then you can --

STACY LOWE: And then you can sit for the board.

KATHY DROTAR: Through AART.
RANDY SCHENKMAN, CHAIRPERSON: That's --
KELLY NESMITH: That's secondary.
STACY LOWE: Post primary.
REBECCA McFADDEN: Okay. And compared to CT, the $M R$ is much less as far as requirements or is about equal?

CHANTEL CORBETT: No, it's the same.
REBECCA McFADDEN: So it's about equal. And nuclear medicine is not -- I'm just trying to get a background so I can understand a little bit. So nuclear medicine as well as MRI are not state licensed and both are subject to change.

CHANTEL CORBETT: No. Nuclear medicine is a primary and it is licensed.

REBECCA McFADDEN: Okay. But you're trying to do CT as a secondary and MRI is -- any primary with $M R$ as a secondary.

KATHY DROTAR: I'm not sure if it's any. AART lists out --

REBECCA McFADDEN: It would have to be --

JAMES FUTCH: It could be both primary or post for the national registers.

REBECCA McFADDEN: For the national registers. I'm just trying to identify the differences and the importance of having it licensed as a state in addition to as the national licensure. And what, you know, what would be provided more in a positive manner like, so what would be the positives to make it licensed as a state versus just having the national registry.

And I guess that's where I'm trying -- I mean, patient safety is one thing. So would it set standards and requirements for safety when utilizing the $\operatorname{MR}$ ? What are the benefits of being state licensed for an $\operatorname{MR}$ ?

JAMES FUTCH: Let's back up for a second. REBECCA McFADDEN: Okay. JAMES FUTCH: We're just talking about modality and hazards and --

REBECCA McFADDEN: Right. Okay.
JAMES FUTCH: -- what the licensure landscape is. For Florida, one of the differences between CT that we talked about and the $M R$ is that even before we had this special technologist law in 2012, which allowed us to recognize the National Registry All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
licenses by endorsement, it was ionizing radiation. So somebody was doing CT in Florida. Even if they didn't have a national registry CT credential, state law said you have to have some kind of license from the state because it's ionizing radiation. And the license that you would've had would've been a radiographer. A general radiographer. So you would've had some kind of license.

But MR, because of the way this law is structured, there is no state requirement that you have to have any kind of non-ionizing license, including $\mathbb{M}$, at all.

REBECCA McFADDEN: Right.
JAMES FUTCH: So you could do it in a small facility, for example, that doesn't do reimbursement through the any federal sources, for example. You can have anybody do it. Now, would they do that? Probably not.

KATHY DROTAR: The janitor can go in and do an MR scan.

JAMES FUTCH: But you're not licensed. There's no requirement.

CHANTEL CORBETT: The likelihood of that is totally --

REBECCA MCFADDEN: But a national registry for All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
the most part, not many --
JAMES FUTCH: If your employer is looking for something to make sure your employee knows what they're doing before you give them this multi-million dollar machine and all of this important reimbursement that's going to be done with it, you would look to one of the national registries.

REBECCA McFADDEN: Right.
CHANTEL CORBETT: So is it a shorter, is it a shorter possible path to put it as a requirement to at least have the national registry at the Florida level?

REBECCA McFADDEN: At a minimum.
KATHY DROTAR: That's why endorsements we're talking about.

JAMES FUTCH: Well, whichever way you wanted to say it. For the Council's purposes, I think we need to just look at, is this a modality that has some type of hazards associated with it. CHANTEL CORBETT: Yes. REBECCA McFADDEN: Well, obviously. JAMES FUTCH: You say that, but -REBECCA McFADDEN: Yes. JAMES FUTCH: We're dealing with audiences
further away from --
CHANTEL CORBETT: They have a lot more injuries in diagnostic nuclear, so --

JAMES FUTCH: And may not, like Kathy said before, half the people who call me don't even realize we don't have a requirement for this. They think, oh, first they have to be licensed and so there are folks in the regulatory scheme who are quite surprised that we don't. There's no requirement for that in state law.

And then there are the other folks who think it's just the same as ionizing. Don't worry about long-term cancer induction. There's no lawyer thinking in the back of their head, let's keep this where it's achievable from those standpoints and it's completely different. That's not what we're talking about. Projectile effects and things like that are, you know, not part of the Pantheon of things that they understand.

So I think the Council's job would be to look at it, make sure we've got it in the Record, especially when folks like Mark come talk about it, there our some hazards. And then say if we want to discuss it and then talk about it, should we make any kind of recommendations -- we don't have to make
any recommendation even now. We can invite the, you know, the ASRT folks to come and talk about their licensure and their requirements in more detail and do it at a future meeting in October, for example. ALBERTO TINEO: Not having the license by the state, will then allow a free-standing MRI facility to then hire a new -- any person can walk in there and do an MRI.

CHANTEL CORBETT: That's always been the case. ALBERTO TINEO: That's where we're saying as a council, we should be protecting the public and the patient. And it's not -- the hospitals will be regulated whether we have a state license or not. I mean -- but the issue is, we have to protect the entire population of the State of Florida, which is also the free-standing MRI standards that some of them -- I'm not saying that they're terrible. Some of them do go by what they are supposed to do. But then there are some that just like to push the envelope and if there's no requirement that they have to hire a person that has a certified -- a national certification, they will hire whoever and they train them on the job and then they go at it and do -- start doing MRIs.

RANDY SCHENKMAN, CHAIRPERSON: That goes back
to what Becky said then. That is it a quicker course for us to say that anybody that's performing MRI has to have the national certification.

CHANTEL CORBETT: Right.
KATHY DROTAR: Should have.
JAMES FUTCH: Well --
REBECCA McFADDEN: Right now.
CHANTEL CORBETT: Our suggestion that's what we're saying.

RANDY SCHENKMAN, CHAIRPERSON: We're saying -CHANTEL CORBETT: Is our suggestion that we move forward in that.

RANDY SCHENKMAN, CHAIRPERSON: Right. In that direction.

CHANTEL CORBETT: Is that how we proceed? We would make a recommendation to change?

KELLY NESMITH: James, what if they added, like if they added for PET CT, the three ways to meet the requirements to PET CT and nuclear medicine and it was in the administrative code to say that you had to take a safety course and it has to cover these subjects or you have to have the national registry or you can take a manufacturer's course to prove a certificate.

KATHY DROTAR: I really think what we need is
that recommendation, but we need to pursue this more and to get more solid information so that we can move it through the department in order to have it considered and make those changes that are needed.

I think we're recognizing that there's a probable need and that there are a number of safety considerations and that it would behoove the Council to look at that and to then make recommendations about who should and who shouldn't, because I think there's a number of things, just going back to how the Legislature, how the regulations are written, like you're saying, that there's different levels.

JAMES FUTCH: And then not trying to put the cart before the horse, which you know, Mark was supposed to talk first so you understand a little bit about the process, and people who are in this room a little bit more, and then talk about the personnel side of it.

We don't have to do anything. I'm not writing any motions for folks to go vote on. I'm just trying to get the information in the Record and then go from there. And it may not happen at this meeting. When they want to know more, we should be able to have the national registry folks to talk to us about some of this, but --

REBECCA McFADDEN: Are MRI machines licensed like x-ray?

JAMES FUTCH: The other side I wanted to mention, you know, we have two Florida statutes that the Council has purview over. One is 416 deals with licensure of personnel, which is where the Council is incorporated, but the other one is 404, which kind of ties in from the radiation protection side of things.

We don't have authority in 404, like we do for x-ray machines, to go out and inspect or set any kind of standards at all. There's nothing on the non-ionizing side except for a very small statute that talks about lasers and laser registration. And that one also only talks about registration. It doesn't set any requirement to go out and renew and be inspected and all of this. So the whole non-ionizing side -- and RF isn't even mentioned at all.

So, by the way, all of the -- you may have seen these facilities where your salons -- in our neighborhood, there are devices out there which marry ultrasound and RF and laser technology all together in the same device. And they are used for, basically, transmitting energy into deeper tissues
to do things like giving collagen or causing it to be reabsorbed by the body. And all of that is completely unregulated both on the operator's side and on the machine side.

So there's a lot of stuff out there, guys. Just focus on MR today. And it's a -- you're an advisory council, so you make recommendations and the Department decides how far to go with it. And we make a good recommendation, it's based upon sound facts. It's in the Record and we have something to rely upon and at least make the case as an organization.

So I think perhaps we've gone as far as we can with $\mathbb{M R}$ at the moment.

RANDY SCHENKMAN, CHAIRPERSON: Yeah. We'll wait until we get --

REBECCA McFADDEN: Sorry, I asked too many questions but I had to get an understanding -- from Mark.

JAMES FUTCH: All questions, all the same kind of things that people farther up the food chain when you get, especially when you get downtown, they're all going to ask those questions. They're all going say, why this and why not that? And have you thought about this, have you thought about that?

And the one thing that we supply is, we're all much closer to the business end of the medical imaging and understanding how the devices work and how the people get certified, at least at the national level, and what kinds of classes they teach and what the exam covers. And it does cover safety, obviously.

KATHY DROTAR: Yes.
JAMES FUTCH: So that's the biggest and most important use for us.

Anything else on $M \mathbb{R}$ before we move on to -Mark is not quite here. He's still -- probably caught in a little bit of traffic. But we're going to do the -- do you want to take a break? All right. Ten minutes?
(Proceedings recessed at 11:11 a.m.)
(Proceedings resumed at 11:25 a.m.)
RANDY SCHENKMAN, CHAIRPERSON: Okay. So when Mark gets here, we will hear more about this. But for right now, we are going to move on to -- we're going to talk -- we're going to move on to personal security scanners.

JAMES FUTCH: I'm going to kill hopefully some, but not all of the lights.

So every meeting we go through and talk about
rules and there's some rules in process that we can't talk about.
(Allison Dudley is not present)
JAMES FUTCH: There are some rules that we've completed and we can talk about those.

I want to say one thing, and Brenda is going to slap me if I say too much, so I won't say too much. 6040-3 we're in process on with something that is adapting our Florida regs to be in compliance with some continuing education stuff at the national level. National Registry level. And I won't go into the details because that would violate all sorts of things in terms of process for rules and regulations and that might invalidate that whole process. But there is something moving along with that.

What do you have to say about dash four? Dash four is the -- 63-4 is the non-ionizing laser registration. We're doing the same thing there. We're keeping up with the -- some national standards that exist for lasers that our regs are tied to. They changed them. We're trying to adapt that at the state level. And I think that's about to go into the regulatory process on that one.

BRENDA ANDREWS: Yes.

JAMES FUTCH: Which leaves us with the last regulation that we're responsible for in terms of radiation control is 63-5, which is where everything else is. Radioactive materials and x-ray machines and anything, environmental monitoring and so forth and so on.

And we just finished adopting the regulatory changes to personnel security scanners. If you think way back, this was something that was brought to us many moons ago. I forgot --

BRENDA ANDREWS: A couple years now.
JAMES FUTCH: We have x-ray statutes which require some things and they have very strict requirements and most them deal with medical use of x-ray machines. And the world changed, 9-11 happened and even if it didn't, the law enforcement side of the world and the jails and the courthouses, places that want to make sure, like no guns go into them, they have a market. They have $x$-ray machines that are used to scan people going into those places. And so we have the medical x-ray requirements and then we have the x-ray machines, very low-dose machines used for a completely different purpose.

BRENDA ANDREWS: For security.

JAMES FUTCH: For security purposes. So for many, many years, we would be approached by those entities to say, hey, your regs don't really fit anything. We've got this thing that we're doing, and they would apply for a variance from the regulation. And we would go through and grant that variation. It's the same variance, same kind of thing that we would give them the ability to not have to obey, basically, that part of the regulation. And we did that a fair number of times.

And finally, part of the overseeing authority of state regulations in Florida came back and said, you granted this so many times, you really need to amend your regulations so you don't have to grant a variance all the time. Just put it in the regulation. And that is what this presentation is about.

I say this because you notice my name is not on the bottom. Neither of those two people are here and they couldn't be here today. But we wanted to give you some sense of what was happening in that realm.

How many slides is this?
BRENDA ANDREWS: It's not that long of a presentation.

JAMES FUTCH: Right. This was given to the CRCPD.

BRENDA ANDREWS: Actually, it was supposed to be. However, we were still in promulgation during that time, so we had to zip the lips. We could not talk about that at the CRCPD meeting. It was set up for that purpose, but we had to take that off of our agenda for that.

JAMES FUTCH: CRCPD is our national, our radiation control organization at the state level organization of all the radiation control offices all over the country and they had their annual meeting last week.

BRENDA ANDREWS: Yes.
JAMES FUTCH: So I'm going to just flip through this very quickly just to see what facts and figures are in here.

So the standard that we talked about, there is actually an ANSI standard. I forget the number. It's in there some place, I'm sure. That covers security scanners and there's a couple different classes, but there are dose limits. The medical, double APM, and I think HPS worked on that and that's --

BRENDA ANDREWS: It was 43-

JAMES FUTCH: N43.
BRENDA ANDREWS: N43-009.
JAMES FUTCH: Mark can probably tell us.
This is what I said before. We're getting a training facility starting in 2011, they told somebody who told somebody, who told somebody and we ended up with 17 variances or thereabouts. So that's the person at the bottom is the person who said, go fix your rule.

This is a couple of companies that make these security screening devices. You saw the dose rates. Ten, twenty.

BRENDA ANDREWS: These scanners are only for penal systems. For inmates. Not for the public.

JAMES FUTCH: We tried to couch it in terms of what was required. So we don't expect these to show up in the regulation we put in place can't be used to security screening for anything other than these fairly defined purposes.

So there's different kinds. This particular one they stand on a platform. You guys have been through all sorts of metal detectors. They operate very similar, except for the radiation, of course.

I don't know if people were complaining about being able to see images. I didn't hear that.

BRENDA ANDREWS: No.
REBECCA McFADDEN: Do the officers have their badges that are operating these?

JAMES FUTCH: That's a good question. I don't remember.

CHANTEL CORBETT: At those rates, I'd be surprised. They probably do.

JAMES FUTCH: There are two levels in the ANSI standard. The one most of these are in, I don't think required that. They don't even require keeping track of inmate doses.

BRENDA ANDREWS: I think this one does, though. The rule.

JAMES FUTCH: The rule does?
BRENDA ANDREWS: The rule does. And the ANSI standard does, I'm sorry.

JAMES FUTCH: Yeah, I was going to say there's a higher threshold system in the ANSI standard, which I'm not sure of the rule, to make sure when the ANSI standard says you need to start keep tracking of all the scans and the doses. Which I think they use the general public dose.

BRENDA ANDREWS: I don't remember if it's the general public dose. The rule, itself, does not actually say, indicate the dosages. It just says to
refer to the ANSI standards. So the ANSI standards is the one that outlines the dose rate that they can take over a year's time.

CHANTEL CORBETT: Typically, you know, background is usually, in Central Florida anyway, you know, twenty-five to thirty microR per hour and this is around ten to twenty.

JAMES FUTCH: I remember looking at these before. These things are talking about individual doses, scans in that ballpark or less. Twenty-five microR is actually the top end of the dose. I'm sure we'll have it here. It's designed to operate itself. Stores an image. So it transmits scans of the soft tissues.

This just gives our authority. There's the standard. NCHBS17-2009. It's twenty-five microM per person.

WILLIAM ATHERTON: Per scan?
JAMES FUTCH: Yeah, per scan.
WILLIAM ATHERTON: How often are they scanned? JAMES FUTCH: This is where --

REBECCA McFADDEN: Over the course of ten years.

JAMES FUTCH: There is a higher level. If they do enough scans that they are approaching a higher All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
level, they have to start keeping track.
RANDY SCHENKMAN, CHAIRPERSON: Are you talking about the inmates or are you talking about the person doing the scans?

JAMES FUTCH: No, this is the person going through the --

CHANTEL CORBETT: This is the patients.
REBECCA McFADDEN: This is the inmates they're talking about. So per scan.

JAMES FUTCH: So this is basically saying the way they're screening, because there was an overriding public health and safety need that was not contraindicated by the --

KATHY DROTAR: James, are either one of the scanners mentioned in this, ones that where we had somebody that came and spoke to the Council several years back, but --

JAMES FUTCH: I'm trying to remember which one it was.

KATHY DROTAR: -- because our main concern there was also the dose. I remember Nasio (ph) saying the dose to the thyroid, they didn't really have any information at that time. So it looks like they've accumulated some of that.

JAMES FUTCH: Yeah. I think Cindy was
interested in what the other states were doing. Our own county in Tallahassee is employing these.

So these are the questions that CRCPD sent out.
MARY HART: What was the answer to the question, is the number of scans per individual tracked?

JAMES FUTCH: I'm thinking that's hopefully on the next slide.

There you go. Seventeen responded. This is the stuff that we were doing before. The one that had the rule was based on the same ANSI standards.

One currently prohibits all exposure unless it's for healing arts purposes. We actually, this is kind of interesting, had a discussion with our attorneys about that. This is kind of interesting. And that's one of the reasons we ended up with this rule.

REBECCA McFADDEN: Seventy-five scans per twenty-four hours. Those inmates that even come back every day, you know, if they're getting scanned every time -- so they never know when they're going to go.

KELLY NESMITH: It's like a random drug screening.

REBECCA McFADDEN: Yeah.

JAMES FUTCH: When they come into the facility.
KELLY NESMITH: Body cavity scan.
JAMES FUTCH: I can imagine it's pretty difficult to figure out what those objects are if you never had an x-ray machine before.

RANDY SCHENKMAN, CHAIRPERSON: So these people don't have to have any training?

JAMES FUTCH: I'm sure the manufacturer is providing some, but whether or not you're going to leave a person to understand and not read an x-ray to understand what's on the body.

CHANTEL CORBETT: The creative nature of inmates and things that they would be hiding.

JAMES FUTCH: In different places.
CHANTEL CORBETT: Yeah.
REBECCA McFADDEN: We don't need any details. We're good.

JAMES FUTCH: When I first heard about it was Collier County that was doing it. Field training allowed officers to get accustomed to the technology. They can run the machine, but actually seeing, determining what was on the person takes longer.

REBECCA McFADDEN: They're scanning all kinds of stuff, not just people.

RANDY SCHENKMAN, CHAIRPERSON: Right.
JAMES FUTCH: They have the baggage handlers if they want to scan objects. And they've had those for a long time.

WILLIAM ATHERTON: Going along to the fourth point, it says they found less contraband in inmates. Have they had any outcome studies to see if it has helped?

JAMES FUTCH: None that I've heard of. WILLIAM ATHERTON: After doing all this scanning, has it really helped?

JAMES FUTCH: That would be an interesting area for someone -- I'm just saying --

WILLIAM ATHERTON: It seems like if you're exposing them --

JAMES FUTCH: There's an HBS publication right there. Ready to happen. Have you seen anything? PAUL BURRESS: No. Just safety.

MARY HART: How does it save money?
JAMES FUTCH: This is their comments. This is the jails' comments. Comments are free.

CHANTEL CORBETT: Probably because it takes less personnel to run those things.

JAMES FUTCH: This could be a deterrent just because the inmates don't know what you're going to All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
see or find.
CHANTEL CORBETT: They're going to assume you're going to find everything.

RANDY SCHENKMAN, CHAIRPERSON: Or when you're going to scan them, is what the last one said.

CHANTEL CORBETT: Right, if it's random.
KATHY DROTAR: There's a company that came in to talk to us, were also talking about scanning the visitors that came in as well.

CHANTEL CORBETT: But that's like going into a courthouse or anything else.

MARY HART: Exactly.
JAMES FUTCH: It's going to be an interesting interplay. Scanning places where lawyers go. Hmmm. (Laughter)

BRENDA ANDREWS: They have metal detectors in the courthouses, but they're not scanners. That's a major -- I mean, you run your property through this scanner, but as far as the body going through, it's more the metal detection.

JAMES FUTCH: This is interesting. It's considered a virtual strip search. There's, I guess, a higher level of offense required. Weapons, controlled substances, when it says a person can't be released.

REBECCA McFADDEN: Like a strip search. JAMES FUTCH: The one jail person. It's a deterrent. Interesting.

The standard, itself. Let's see. 25 microR per year. So one quarter of the recommended dose. Which is one third of what you get from naturally occurring sources in the world.

WILLIAM ATHERTON: What's on top of them?
CHANTEL CORBETT: You can't get away from the natural ones.

MARY HART: But the question is how do they -they don't count how many times. That seems unlikely.

CHANTEL CORBETT: I mean if it's twenty-five microR per scan.

JAMES FUTCH: .25. General use systems, which are lower dose ones, twenty-five microR per scan.

PAUL BURRESS: So you'd have to get a thousand scans per year.

JAMES FUTCH: Three a day.
PAUL BURRESS: But this also in the dose rage of bone density scanners. They're right in this range and yet we require qualified people and you have to calibrate the conditions and have the QA and have the warning signs.

MARY HART: The calibration is what I'm worried about.

JAMES FUTCH: So this is what we are --
CHANTEL CORBETT: Security guards run the scan. That's not going to prevent a lot of things right there. You need to do your security guards because they're usually the ones bringing things in.

JAMES FUTCH: Do you want that in the official record there, Chantel?
(Laughter)
CHANTEL CORBETT: Sure, I have no problem with that. Just look at Starke and how many people have been arrested.

MATTHEW WALSER: How do you know about all this stuff?

CHANTEL CORBETT: My ex-husband is a sheriff's officer and my husband is from Raiford.

MATTHEW WALSER: There you go.
JAMES FUTCH: For our rule, it's not going to be used any place else than the penal system.

BRENDA ANDREWS: I think we had one person who requested a waiver for a jewelry store. That's probably the one.

JAMES FUTCH: Yeah. This is the current language. I think this was taken from the ANSI All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com

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standard, itself.
BRENDA ANDREWS: We did the first rule language.

JAMES FUTCH: So we're done with all this. Yeah. This was prior to actually being --

I look forward to the $x$-ray administrator dealing with all of this.

BRENDA ANDREWS: No inspectors.
JAMES FUTCH: The one in the middle, the BMI measurements.

PAUL BURRESS: It would be a way to skirt the bone densitometry rules. I've got a personal security scanner.

JAMES FUTCH: You can't do it now the way this regulation is written. They can request a variance, which would probably be denied.

PAUL BURRESS: Yeah.
BRENDA ANDREWS: We're not doing anymore variances.

JAMES FUTCH: Good. Obey the rule. And that's it.

WILLIAM ATHERTON: So this rule, basically, I thought one of the rules says they can't use it for non-physician ordered purposes. This rule allows it to use it for non-physician ordered purposes.

JAMES FUTCH: Yes. The rule is officially providing a way to do it for non-medical purposes as opposed to just having them ask for variances that we basically have to grant and it provides a firmer footing for us to deny those very narrow exceptions. It is an exception that you can only do it for medical purposes.

WILLIAM ATHERTON: Does that -- now does this rule have to go through Congress?

JAMES FUTCH: Uhn-uhn. We always thought -- I always thought, when I read the statutes, they weren't permitting medical uses. And apparently, I was wrong, according to the current crop of attorneys who are reading those statutes. Hence, this regulation was needed.

PAUL BURRESS: Risk benefit, it seems like it tips toward benefit if it's really used properly for security. And the risk you worry about, it's low. It's less than MRI risk. And MRI risk we know is not regulated. The machines are regulated, though, by FDA, right, and since they are machines --

JAMES FUTCH: From the production and manufacturing side.

PAUL BURRESS: So they have standards and installation requirements and they're licensed, too, All Good Reporters, LLLC (321) 285-2324 www.AllGoodReporters.com
with the state, right?
JAMES FUTCH: They are.
PAUL BURRESS: And the state will inspect these?

JAMES FUTCH: Registered and inspected.
BRENDA ANDREWS: Now they have to be registered. And they have to probably now pay the registration fees, whereas that wasn't happening before.

JAMES FUTCH: They were given a variance from the -- from all of the requirements.

PAUL BURRESS: So there are controls in place. It seems like this isn't a huge area to have a lot of concern for.

JAMES FUTCH: I think we went over this with a fine tooth comb many, many times with a fair number of folks to try and contain this down to just a bare minimum that was needed to meet the health and safety requirement of jails. I mean, like Chantel was saying before, there was a little bit of problem with contraband in jails.

PAUL BURRESS: Yeah.
JAMES FUTCH: And you have to do something.
PAUL BURRESS: The only thing I wonder about bone densitometers are fixed. You know, the beam is All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
only going one way and you don't see straight radiation with these pencil beam units. Are these pencil beams?

JAMES FUTCH: I've never seen one, myself. PAUL BURRESS: I wonder if they get out of alignment, if they could be not delivering the right dose to do the job, but --

JAMES FUTCH: I would assume when the inspectors go out and inspect them, they inspect them.

BRENDA ANDREWS: Yeah, now that the rule is adopted, our inspectors will develop SOPs in order to go in and do the same thing they do with other x-ray machines. They will set them up on a regular basis to have them inspected and calibrated. If there are any violations, those would be reported. So they now have to follow the same procedures that they do with any other x-ray machines.

MARY HART: So this has already been approved? RANDY SCHENKMAN, CHAIRPERSON: The people running the machines, do they get the training for that? For calibrating them, making sure --

WILLIAM ATHERTON: And do they wear dosimeters?
BRENDA ANDREWS: I don't know the answers to that part.

JAMES FUTCH: I would assume since they're registered, part of the regulatory environment now, all of the normal part of Part III would apply. Which means if there's a reasonable expectation they're going to get more than 500 mill in a year as an operator, they're going to have to have them. My own guess is there would be no reasonable expectation they'll get more than 500 mill a year on a device as an operator.

PAUL BURRESS: Yeah.
JAMES FUTCH: But that requirement is already in the regs for all ionizing.

BRENDA ANDREWS: We'll get the answers.
RANDY SCHENKMAN, CHAIRPERSON: I was just curious. People who are operating them know what they're doing.

JAMES FUTCH: You look like you have a question on your face.

MARY HART: Yeah, actually, Chantel brought out, why are we -- the courthouse, these same devices are used in the courthouse, but I guess it's because people randomly -- it's a rare event hopefully that you're going in and out --

JAMES FUTCH: I don't think these are security scanners --

CHANTEL CORBETT: These are different.
MARY HART: Those are just the metal detectors, right.

JAMES FUTCH: We call them baggage handlers, you put your stuff --

CHANTEL CORBETT: You put your stuff in the bags .

JAMES FUTCH: The curtains open and the x-rays go through the device. They find all sorts of things to pull out of my bag.

Don't ever bring, let's see, a VHF radio next to two portable hard drives with a bunch of wires in your bag.
(Laughter)
CHANTEL CORBETT: Anything with a bunch of wires probably these days.

JAMES FUTCH: You'd think that but really, it was the density of the hard drives next to the radio and the lithium batteries that were needed for the radio that was in there.

CHANTEL CORBETT: The wires.
PAUL BURRESS: Don't put a hockey puck next to an IPad, either.
(Laughter)
CHANTEL CORBETT: Or a lineator. Don't try to
take a lineator through.
RANDY SCHENKMAN, CHAIRPERSON: Because they can't get through the densities, so they have to see what it is.

JAMES FUTCH: I had this person, a lot of folks when you're teaching, when I talk about materials, I usually take some, you know, consumer products, Fiesta ware, vaseline glass, granite countertop.

So I had this freaky looking piece of vaseline glass, this yellowish green highlighter color from the Uranium that they used in glass. This was an ashtray. It was a big, large thing. I had been taking it back and forth through airport scanners training all over the country a long time.

I went through Tallahassee a couple months back, and the guy pulls the bag over. He's like, you know, come on over here. And he goes through the, going through all this stuff. And he pulls this ashtray out. I'm like, oh, crap, he finally figured out that it's mildly radioactive, you know, norm basically, that's, that's going on your airplane. And he goes, I just want to do a swipe test on it and he did the nitrates. It's just an ashtray.
(Mark Seddon Enters the Meeting)

RANDY SCHENKMAN, CHAIRPERSON: Welcome.
JAMES FUTCH: I think we're about to break for lunch.

But so anyway, anymore questions about scanners and the new rule or anything like that?

So Brenda, I think, passed out or is about to pass out --

BRENDA ANDREWS: I don't have enough, but these are menus.

JAMES FUTCH: Share your menus.
BRENDA ANDREWS: We have -- the only restaurant in the area, without having to drive somewhere, is in this hotel and they are setting up for lunch for us. And I just printed off a few menus. So if you all wanted to take a look at it before you go down there and see if you see something you want or there are menus on the table. I saw that they are already setting things up for us.
(Chantel Corbett Leaves the Meeting)
JAMES FUTCH: So I think we're to the point where we probably should break for lunch. And I know who has to leave early today. You have to leave?

ALBERTO TINEO: 1:30.
MATTHEW WALSER: 2:30.

RANDY SCHENKMAN, CHAIRPERSON: Since we're in the hotel and they're ready for us, if we can be back here at one o'clock?

BRENDA ANDREWS: If you need us to, we can be --

JAMES FUTCH: See if you can be back at 1 ○'clock.

BRENDA ANDREWS: Eat fast.
RANDY SCHENKMAN, CHAIRPERSON: At least we have an idea what they have, right?

MARY HART: Can we leave the paperwork and stuff here?

JAMES FUTCH: Oh, yeah, you can leave all that stuff here.

RANDY SCHENKMAN, CHAIRPERSON: Okay. So let's break for lunch everybody, and then we'll be back here at one.
(Proceedings recessed at 11:54 a.m.)
(Proceedings resumed at 1:10 p.m.)
RANDY SCHENKMAN, CHAIRPERSON: Are we ready to get back to business?

We're now going to be hearing from Mark who's going to give us an overview on the safety of MRI -or not safety.

MARK SEDDON: No, it's safe.

JAMES FUTCH: A little bit of both.
MARK SEDDON: It's a little bit of both.
JAMES FUTCH: As we watch this, think of our non-technical audiences who may eventually review this material later on. Sorry. Go ahead.

MARK SEDDON: So I apologize for running late this morning. I was running around out of town. EFSTRATIOS LAGOUTARIS: Unacceptable, Mark. MARK SEDDON: Family issues, so I apologize. I also know some of you might be leaving here soon.

Basically, James just wanted me to give you an brief overview of some MRI physics and some MRI safety discussion. I understand Stacy already talked this morning about some MRI technologist's perspective of things.

So basically, an overall picture of how an MRI works. MRI is basically a large magnet and your patient lies within the scanner with the magnetic field created within the patient. So this magnetic field causes the nuclei within the hydrogen proton atoms to align with the magnetic field. You get an image by creating an electromagnetic radiation $R F$ pulse which is transmitted from the machine into the patient and it excites the protons.

So after you excite all those protons, they give off the extra energy in the form of the same frequency of electromagnetic radiation and that's received by the machine and it produces the image. So that's the real basic overview of what MRI does.

But the bonus of the $M R I$ is the primary magnet, and this creates the magnetic field. It's basically a supercooled conducting coiled electrical wire with a current running through it.

In addition to that, you have gradient magnets which are smaller magnets that cause time varying gradient fields to be created. And this helps them to allow the geometrical location of where the signal is coming from within the body.

And then finally, you have your coils, which are the antenna that are placed either within the core, itself, or around the patient body part you're looking at and those emit radio frequency pulses and allow for the alignment of protons and they also receive the RF radiation, CM 5 radiation.

So just looking at perspectives as far as the strength of the large magnetic field we're using, the gauss, typically the earth is a measurement of magnetic field strength. So for the earth, it's . 5 gauss. In MRI, we talk about tesla. And so, most
of our MRI magnets are 1.5 tesla or 3 tesla for the most common ones used, clinically used today. So the relationship is that 1 tesla is equivalent to 10,000 Gauss. So there's a huge increase in the force of a magnetic field that we have from the MRIs used versus what is used or what we have from the earth.

So some of the factors contributed to MRI imaging, I'm going to go over some basic MRI physics. If I get into too much detail to show -it's very complicated, and so, there is a lot of respect that goes to the MRI technologists. We have to figure all this out on the back end of it.

But you have different quantum properties of different materials that create the Larmor frequency spins. You have the RF excitation properties of the tissues. The tissue relaxation properties. Of course, the magnetic field strength is 1.5 or 3 tesla magnet; the type of gradients you have and then how the gradients are timed and the RF pulses and the signal detection.

So when we're doing $M R$, we're actually looking at proton densities. Because within the body, the hydrogen atom is your dipole molecule that has actually a magnetic field, in essence, so it's MR All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
sensitive. And so, because most of us are made up of water, we're using all hydrogen atoms to create these images.

And so, looking at these little hydrogen molecules, normally they're all spinning in random orientations. And when they are aligned in an MRI scanner, they are all lined up in one single rotation, but still spinning, precessing.

So the difference between a state where they are aligned and not aligned is based upon the type of nucleus you have, and so, this is related to this Larmor frequency. So for a proton, which is hydrogen, it's $42.57 \mathrm{MHz} /$ tesla.

Jim asked me to throw in an equation, just to mess with you.

JAMES FUTCH: It feels like physics now. Okay. I'm all better. Go ahead.

MARK SEDDON: So the radio frequency of some common nuclei, so for a 1.5 tesla magnet, which is like the common used, for hydrogen, it's 63.86 MHz . Some other materials have a specific resonance frequency, a Larmor frequency that they precess at.

Talking about precessing, the resonance, so that relates to the transfer and exchange of energies between two systems, and so it's very All Good Reporters, LLLC (321) 285-2324 www. AllGoodReporters.com
specific to the type of frequency that is used to create the RF pulse and also the -- this is based upon the material that you're trying to excite.

So what happens is, you have all these protons which are precessing at a certain frequency, and so you can go ahead and energize them with an RF pulse at the same frequency. And then during equilibrium, as they reduce back down to a lower energy state, they will emit energy in the same, again, with the same frequency.

So we have all these protons, you have a net magnetization, with many, many spins, so the tissue has overall net magnetization as related, related to the strength of the magnetic field. So obviously, you have higher density with a 3 tesla versus 1.5 tesla magnet.

That basically says the same thing. So the smaller the field, the lower the net magnetization versus the larger field. This gives you a better, better signal and better image quality.

So to measure magnetization, we must perturb it. So you can only measure magnetization in the body when it's perpendicular to the base magnetic field, so we apply the energy, RF pulses to tip those protons out of alignment. And the amount of All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
energy needed is based upon the type of material you're looking at, radiant protons for MRI and the field strength. And the amount of energy you add, as far as how long the pulse is, how much energy you're providing, will determine how much of a tip you have with the protons.

So normally, the protons are aligned along the axis of the MRI. When you apply an RF pulse, they start precessing out of frequency around the magnetic field. Kind of like a gyroscope.

So when you apply an RF pulse at magnetic resonance, the protons spin, because these are, these protons are spinning. They will spin and tilt down to a 90-degree angle, say, to give enough of, a long enough RF pulse. And then as the -- once you take the $R F$ energy away, the proton will start tilting back towards the axis.

And this is what that's basically showing. So once you turn off the transmitter, you start seeing the protons realign. As they're realigning, they're giving off energy at the same frequency.

So this energy that you're -- that the body is giving off, the tissue is giving off, they are recorded. So you have a receive coil, an antenna, basically, which is attuned to the same frequency that you use to excite
the protons. And you're basically measuring the pre-induction to $K$ of the magnetization of the tissue.

So you'll see there's two types of -- I'll show this here in a second. There's two types of decay of the signal. Both a net magnetization vector and also as the alignment of the field.

So this is called T1 and T2 types of relaxations. Different types of material have different types of characteristics. So T1 weighted images will focus more on gray and white matter. T2 weighted images will have more response from regular tissue, soft tissue and then CSF and then functional MRI will be more a different type of $T 2$ weighted type imaging.

So developing contrast, you use a different -this is an example of Tl weighted images. So you have different types of images have different types of characteristics to them, decay characteristics, so gray matter versus CSF.

So this is an example of T 1 relaxation and T 2 relaxation. So once you energize these protons, you have a -- you see to the top right, you see that the magnetization is rotating around the $Z$ axis about 90 degrees and slowly realigns as it gives off its energy. That's considered T1 relaxation.

That's due to the spin lattice contractions of
the protons with the surrounding materials. T2 relaxation is a de-phasing, which we notice all the magnetic fields are oriented a certain direction and a certain de-phasing over time. And so, you end up with -that's more related to the interactions of the other type of materials that the protons are in.

So liquid would be a very long T2 relaxation whereas if it's in the structure tissue, it would be shorter.

So this is just some examples of different types of body tissues and their type of relaxation times for gray matter, white matter, muscle, CSF, fat. You see T1 relaxations which are the overall magnetic field change versus the $T 2$ relaxation. So these differences enable you to create the images.

So looking at the anatomy of an $M \mathbb{R}$ scanner. So you have a supercooled heating coil superconducting magnet which creates the static field, the primary magnetic field. This is the field that causes all the main problems of safety we have. It's always on. The only way to turn it off is to actually remove the supercooling gasses from it. Called quenching. And then you have a number of coils surrounding the core.

We have the -- you have here, you have the shim coils, which help unify the magnetic field within the

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area of interest that you're trying to take your images. And then you have gradient coils which create changes, minor changes within the magnetic field, which allows you to go ahead and determine where you're located within your volume.

Then you have some built-in RF coils that go ahead and are your antennas. Some are built in here within the $\mathbb{M R}$ scanner, itself, and then some are actually placed around the patient.

So this is just another view of the magnet, itself. You have two type of gasses going, helium and nitrogen. Both of them are very cold compared to air. And then you have usually an iron shield around the outside of the magnet, itself, to reduce the magnetic field within the room. The additional shielding we create.

So the equipment that you have to have when you have an $\mathbb{M R}$ scanner, if you're taking it apart. You've got the magnet, itself. You have the gradient coils which are placed inside the main superconducting magnet and then within that you have the RF coil. So this is basically all built in around here and then right here, this is a separate RF coil that is in here.

So this is just, again, looking at the design of an MRI. This is the iron shielding around the MRI,
itself.
The key thing to remember here is that the entrance to the core is where you have all of your forces coming in and out. You do a gas map of the magnet, primarily you have most of your magnetic forces coming down your core.

So you have the gradient coils. Those are the switching coils that cause the -- allows the magnet to -or MRI to go ahead and determine where you are taking your images from. $\mathrm{X}, \mathrm{Y}$ and Z gradients. And so, they switch back and forth to allow the, very quickly, to allow the processing to determine where it's receiving the -- changing the, slightly changing the magnetic field. It changes the frequency slightly so it allows you to determine exactly where within the body you are acquiring your images.

This is just a Siemens 3T magnet. Some of things they talk about is the maximum gradient two per axis. This is the change from the $X, Y$ and $Z$ direction, 40MT tesla per meter. You are changing this over time. They do switching gradient rates. So this is the slew rate. And then they also talk about the homogeneity of the display or show the volume of the area that you're looking for a nice, uniform magnetic field so you have an equivalent resonant frequency in that area.

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So looking at the $M R$ safety. The primary concerns are static -- are due to the static magnetic field. There's also concerns of time varying $R F$ and magnetic fields. Time varying magnetic fields and the RF pulses; the cryogens and the acoustic noise.

So this was a video. Let me see if I can play it directly from -- no. Okay. Well, it was working. (Video Played)

JAMES FUTCH: These guys have basically a toe strap attached to a crescent wrench and it's on the force gauge measuring how hard it's pulling. That's the magnet doing a levitational.

MARK SEDDON: As you get closer to the edge or to the magnet, itself, it exponentially affects the magnetic force.

JAMES FUTCH: Same thing. A secretarial office chair. And the wooden frame is keeping it from being blown into the magnet. So it's not riding on that frame. It's actually, the magnet is holding that chair in space.

MARK SEDDON: So as you get close, the force increases substantially.

JAMES FUTCH: It's basically destroying the chair. Upscale.

PAUL BURRESS: You know, I am safety director All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
at the magnetic field lab now. Since I gave notice, they gave me another job. And there are magnets there that are 45 tesla, superconducting magnets. The Gauss lines extend out pretty far. And this tends to happen within a hundred Gauss. Within ten Gauss, you have to worry about wiping out credit cards or people's medical implantable devices. Really five gauss the FDA says, but nobody has ever been harmed at five.

This happens more than you would think, and luckily, like carts have been pushed right up to the edge of the 100 Gauss line. It's an exponential Gauss increase. So if you move an inch or two further, everything is fine here and all of a sudden, the cart is going to attach itself to the magnet. If somebody is between that object and the magnet, they can't get off. I mean, they're basically crushed to death until you quench the magnet, which is no easy thing.

MARK SEDDON: And expensive, too.
PAUL BURRESS: And expensive. Not only are you worried about damage to the magnet, but a lot of these superconducting magnets, if you take them down, you might not get them back up. And if you get them back up, they may not be performing the $\mathcal{A l l}$ Good Reporters, $\mathcal{L L C}$ (321) 285-2324 www. AlfGoodReporters.com
same. So there's a lot of other things besides just the thing getting pulled out of your hand into the magnet to worry about.

MARK SEDDON: Yeah. You figure out, a lot of times you have the carts within the room. Most of the rooms now, most of the magnets are actively shielded. So you do end up, you're able to go in with a gauss meter and actually mark on the floor the points that you're safe and not safe for them to use. But it doesn't take much. Once you cross the line, as you say, it will quickly go towards the magnet, itself.

You have problems, a lot of folks have problems with the housekeeping people bring in the floor buffers and things of that nature. They get pulled in there and slammed up against the magnet. So it's --

MARY HART: How long does it take to shut it, to do the quench process?

MARK SEDDON: A quench -- an actual quench -I'll show you a quench here shortly -- a quench is not -- normally what they'll do, unless there's a lot in this situation, they'll go ahead and set up a rig outside the scanner, itself, and attempt to pull the device off, whatever it is off. It's easier to
do that than to quench the magnet. Once you quench a magnet, it's down for an extended period of time.

MARY HART: I mean, if it were a life and death.

MARK SEDDON: Yeah. There's always a big red button that everyone says don't touch in a magnetic -- in an MRI suite. One -- there are -there has been, I had a couple sites where they had a bad switch, so it was self-quenching, which is a problem. And then we had one site where they quenched -- they had a fire in the MRI suite, so the fire department quenched -- tried to quench the magnet, but it froze the vent, so it actually wouldn't fully quench. So that was a problem too.

Most of these are designed, sort of a, once you ramp up a magnet, rarely, $I$ mean it's not that common for you to take it down. It's not -- you don't routinely do that.

MARY HART: Right. Right.
MARK SEDDON: You basically maintain your magnetic field.

WILLIAM ATHERTON: She was asking how long does it take.

MARY HART: If somebody were stuck between an object and -- how long does it take?

MARK SEDDON: A few minutes, I would think.
PAUL BURRESS: Yeah, I would think minutes. It's not an easy thing, though. We just got a 12 tesla MRI for a college medicine to play with. Not for research. Just to play with. They're not going to use it on humans or anything else. There's 900 liters of helium in that thing. It a new low boil off model. Supposedly it doesn't lose much helium. Plus nitrogen.

Well, that stuff expands 700 to one when it goes from liquid to gas. So you imagine 900 liters is what? Six drums in a room. Multiply that by 700 and then have it do that expansion pretty rapidly. Maintenance techs have been killed, I know, servicing $M R$ machines.

But all that quench goes through a duct to the outdoors. And I think all the newer units, the building code and fire code probably have covered this now. But it's a lot of noise and there will be a lot of condensation that will look like your building's on fire. You have to do it. You have to do it. But it's -- I mean, it's going to be an event that people will notice. There's a lot of energy released in a quench.

MARK SEDDON: Yeah. This is just another video All Good Reporters, LLLC (321) 285-2324 www. AllGoodReporters.com
real quick.
(Video Played)
MARK SEDDON: You do these types of experiments when you're decommissioning a magnet because you don't want to be messing up a nice, new magnet with pieces going in it. Materials marking up the outside.

This is relevant because the one of the first -- I'm sure it's the first one -- a child, exactly. So that is where a lot of the $M \mathbb{R}$ safety requirements come from is you had a child killed with an oxygenator just like that.

PAUL BURRESS: Any ferrous materials, right, stretchers.

MARK SEDDON: Stretchers --
PAUL BURRESS: Oxygen cylinders.
EFSTRATIOS LAGOUTARIS: I think it was in Jacksonville we had a police officer who went in with her child.

JAMES FUTCH: Wouldn't take her gun off.
EFSTRATIOS LAGOUTARIS: She forgot and the gun came out of the holster and went off and everything. JAMES FUTCH: There's some other videos like that. They had something that was attached and they ended up stuck to the side of the magnet until they All Good Reporters, LLLC (321) 285-2324 www.AllGoodReporters.com
could get them off.
MARK SEDDON: I just took the two videos. (Alberto Tineo Leaves the Meeting)

EFSTRATIOS LAGOUTARIS: The oxygen tank one, I remember that. I think that occurred in New York, wasn't it? I was a resident not too far from there.

MARK SEDDON: So a six-year-old boy died in the New York area when a metal oxygen tank flew across the room crushing the child to death. So this caused an FDA advisory, safety advisory to go out on MR safety.

I think, like you're saying, I think service people have been injured in the past. I think this is one of the first ones that got kind of national news where a patient was killed.

MARY HART: What year was that?
JAMES FUTCH: Not that long ago.
MARK SEDDON: It wasn't that long ago.
JAMES FUTCH: The anesthesiologist was doing a procedure and basically had to have oxygen -something was happening with the patient and the supply of oxygen to the room was not working. So he sent one or two nurses to go find some oxygen. And while they were off looking, another -- I think a nurse who was not associated with any of this, heard
the anesthesiologist calling for oxygen and pulled a tank out of a closet across the hall and walked into the room with it and didn't get too far before that happened.

MARK SEDDON: So now, because this is on everyone's conscience, everyone is very aware of it, of the oxygen situation. So everything you have in an $\mathbb{M R}$ suite environment is labeled as $\mathbb{M}$ safe and oxygen tanks are labeled MR safe and color coded. So that they really focus on. That was one of the main concerns.

Anything could be a potential projectile. Anything that's ferromagnetic will be attracted to a scanner. A projectile. The larger the material, the bigger the forces as you saw from that previous video. The wrench versus the chair, there's a huge difference in force applied. And that the magnetic field does extend beyond the core, itself. So it doesn't take much. I think it showed, the second video, it was the oxygen, the oxygen canister was sitting at the end of the table without a problem until they shifted it a couple centimeters forward and then the next thing you know, it flew into the magnet.

These are some examples of the more common
things that people have go flying. Your cell phones, keys, glasses. Most of the smaller stuff, generally what happens is, they will go into the magnet and get stuck to the side of the magnet so it's not as visually arresting as some of the bigger items that we saw there. But these are all probably more common and we see them a lot. Especially when I go in to do the $M R$ imaging testing and I see all these artifacts is because usually a bobby pin or something stuck on the inside of the magnet or the table because it didn't get caught when they entered the scanner.

So the larger objects, chairs, IV pole, there's another one that's very common. There's some pictures.

So the static field is one of the main concerns, but there's also the biological factor, the radio frequency pulse. Because even though it's non-ionizing radiation, it is still an energy that you're depositing on the body. So that energy gives up heat. A lot of times they're talking about SAR, the specific absorption rate, which is the amount of energy dissipated within the body per unit mass and time. That's related to the magnetic field strength.

So, you know, as you're saying, you guys have a 12 tesla magnet you said? So, I mean, 1.5 is what we normally see. We see more SAR concerns when we start talking about the 3 tesla magnets in the clinical environment.

So the SARS, the rate which the $R F$ energy is coupled into tissues. The units are watts/kg. And it's basically, you're providing energy to the tissue and it's causing a change in temperature. And it's calculated by the scanners, themselves. The scanners will give you warnings when you're exceeding certain amounts of SAR points.

The limit for the body on average is . 4 watts $/ \mathrm{kg}$. 3.2 is the limit for the head. That's a comparative. It shows you some comparative values there.

So the FDA SAR limits. So the body average is . 4 watts $/ \mathrm{kg}$. Peak for any gram of tissue is 8 watts/kg. Then the head average is 3.2 watts $/ \mathrm{kg}$. All the manufacturers now have built-in safety, especially the 3 tesla systems, that will stop you or give you warnings if you start exceeding the FDA limits.

This is just some more. Those limits are based upon increase in temperature within different parts All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
of the body.
And so your head, 38 degrees Celsius. Trunk, 39 degrees and so on. And they do make exceptions when you have certain patients. You can put ice on them and stuff like that.

The other, thermal safety of the patient. Some of the resonant circuitry within the scanner, itself, and the coil and the leads, you can get some induced current within those things that cause them to heat up. So conductive materials should be removed from the patient. The leads should be covered with the cold compress or ice packs. Any loops, including your arms and legs, you don't want to cross them in the $\operatorname{MRI}$. You could potentially create a conductive loop which will again cause some heating.

And so, this is something that Stacy, some of them, most of the $M R$ techs are trained on to best position the patients properly, positioning your coils and leads properly.

Something else, you're looking at static field versus time variant fields, magnetic fields. Static fields, besides the projectiles, this could cause a torque on implanted objects like clips or heart valves. You could also, even for non-ferrous All Good Reporters, LLLC (321) 285-2324 www.AllGoodReporters.com
materials due to the lens forces, when you move those lens -- when you move those materials in a magnetic field, you could still create an emulsion induction, which cause an opposing magnetic force. And so, even though it's, quote, "non-ferrous material" that's an implant, you still have to move those patients slowly in and out of the magnet. You don't want to stick them up there and race through there, put them on the table and throw them on there.

The varying magnetic fields also induce currents. Any metals or wires, implanted devices, would be like any of your neuro stimulators or pacing wires, things like that, would also be -have current induced within them from the body of the various magnetic fields.

All your implanted devices are screened to determine their safety from static varying fields. The one website -- almost everyone I think universally uses the MRIsafety.com. Fred Shellock is one of the main characters in the $\mathbb{M R}$ safety world and Kanal is the other one.

They both have really good websites and they comparatively tested almost everything that's out there and you look up their website to determine -All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
put in what is the device that's implanted and they will tell you what the contraindications are as far as whether you can record or not.

There are also concerns with piercings or drug delivery patches or tattoos. You can have some, also some heating because of the metal content of those types of items.

The other safety concern is with regards to cryogens. They say, you know, you have nitrogen and helium, both of them are liquid in very cold temperatures. If you are quenching the magnet, you will be releasing that amount of liquid cold material to your current temperature which will cause them to boil rapidly and violently, so all the air within the magnet room, itself, would be released.

So most of these doors open into the room so you have to have a breakout window to be able to go out, the patient and the people in the room to get out, if necessary. But the temperatures are extremely cold; will burn flesh on contact.

And let's see if we can get this video to show a quench.
(Video Played)
MARY HART: Is that within a van?

MARK SEDDON: This, I believe, is in a van.
So you can imagine if that escape valve clogs up or doesn't work function properly, you're going to have all that gas released into the room, your pressure goes super high very fast.
(Video Played)
MARK SEDDON: They show it slowly dropping the chair.

WILLIAM ATHERTON: Does the pipe still freeze and crack?

MARK SEDDON: Yeah. In fact, it actually froze up inside the middle of the hospital. So it froze all this up and it didn't fully quench, which was a big safety concern for us because it wasn't that old. It was a 3 tesla magnet, so it wasn't that old. So we had to go back to the vendor and ask for an explanation.

It was a fire within the room, itself. Like in the lining. Up in the ceiling. So the fire department came in.

REBECCA McFADDEN: They quenched it?
MARK SEDDON: They quenched it. They said it had to be quenched before they would go in.

REBECCA McFADDEN: Because they are, like, fully loaded.

MARK SEDDON: Yeah. You're trying to reduce your -- they try to reduce your artifacts. RF artifacts.

Okay. So that's a quench. That was pretty quick. And then we have a couple other safety things.

So the other safety issue is with regards to the noise. So the activation of the gradient fields produce significant noise from the radiant coils. So it has been shown to produce some hearing impairment; potentially could produce permanent damage, although it is still less than the OSHA standard. So their current recommendation that all patients undergoing a $M R$ procedure in a hypo system, which would be like 1.5 or 3 tesla, they have the ear plugs that provide 30 decibel suppression rating.

All right. So the last couple years, you've seen a lot of formalization of $M R$ safety requirements from the ACR; from the Joint Commission. The ACR accredits the majority of the MR scanners out there. They put into place the requirement that these $M R$ safety policies that are out there that are available on site, they are reviewed annually are in place.

For example, setting up site access restrictions. Different $\mathbb{M R}$ zones, 1, 2, 3, 4. Documented training and education for all personnel that work in the environment. Patient, non-patient $\operatorname{MR}$ personnel are screened. Basically anyone who could enter the scanner, itself, are to fill out a questionnaire to determine if they have any implants or any reason to be concerned.

And then policies on the quenching, cryogen safety. Acoustic noise. Pregnant patients; pediatric patients. Thermal burns. Device and object screening.

Most of these sites will have a giant magnet. They actually confirm that all items coming, potentially could go into the magnet are checked. So they have a method by which they're designating $\operatorname{MR}$ safe or $\mathbb{M}$ conditional status.

Any incidents or adverse events are required to be reported to be the FDA. Again, this is something that now is a requirement, so every site is checked who are part of the ACR. The Joint Commission, as of last year, they require that there's an $\mathbb{M R}$ safety program that focuses on patients who may experience claustrophobia.

This is why a lot of quad patients who have $\mathbb{R}$ All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
done in the hospitals are done under sedation because of the -- it's not as bad as it used to be, but the staff has sedation for them. That they have -- there's a safety -- with patients who may have urgent emergent care, patients with implants or devices -- safety policies regarding the ferromagnetic objects into the $\mathbb{M R}$ environment and acoustic noise.

So the hospitals are required to restrict access to anybody not trained in $M \mathbb{R}$ safety and/or screened by the staff to make sure these restricted areas are controlled and under direct supervision and have proper postings.

The postings are required from the Joint Commission now that the signs should all say the magnet is always on. And so I think I've got some signage here to show.

So the FDA guidance is that the controlled access area should be labeled danger, high magnetic field at all entries. So they used to be old signs saying "warning". It has to be "danger" now. So those are the signs you should have up there. Basically to reinforce the fact the magnet is always on. You don't want a warning, you want a danger sign.

MARY HART: You mentioned pregnant women. Is there any known effect or it's just an avoidance of potential?

MARK SEDDON: Actually, I'm going to talk about that in a second.

Pregnant patients, there's been no -- no studies have shown an effect on pregnant women or the fetuses. However, theoretically, you do see a tissue effect when you've been through a magnetic field like that, so it does make a difference. So the recommendation is that, you know, try to defer from an $\mathbb{M}$ in the first trimester and looking at the risk benefit. That's the ACOG -- I think FDA has a recommendation; ACOG has a recommendation; so does the ACR.

The main thing that for -- in a safety environment is that the $M R$ technologists are the gate keepers and they are controlling everything. It is a very -- it's almost like an industrial device that's in a medical environment. And so, they are basically making sure no one is entering the magnet because the magnet is always on.

They do -- what we do now is talk about $M R$ safety zones. Sorry this is kind of hard to read.

There's four zones. Zone IV is actually inside All Good Reporters, LLLC (321) 285-2324 www.AllGoodReporters.com
the $M R$ suite, itself. Zone III is the area just outside that suite. Like your holding area. And then Zone I is just everywhere outside. Zone II is kind of the in-between.

So as you go from Zone I to Zone IV, you have tighter restrictions on access control. You have your requirement that everyone entering Zone III and Zone IV, they have screening performed; education. They're not being intended -- or not being accompanied.

So Zone II is generally the area like your waiting area, your -- where your technologists are actually talking to them about safety; things like that.

So we have most of those signs are up now. Zone I, II, III, IV. Again, like I said, Zone III is we start warning them that this is a restricted access. Zone III should be a locked area. Screened patients and personnel are only allowed in that area. And then for Zone IV, that should be in the scanner area. That should always be under direct supervision and locked when not in use.

So regarding pregnant workers and pregnant patients. So some of the -- most of the current data out there on pregnant workers has not seen any All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
type of effect or change with pregnant technologists. So their recommendation is that there is no adjustment for a pregnant $\mathbb{R}$ technologist, unlike sometimes in some of the other areas, the radiation, we have corrective practices for that. We don't have anything like that for $M \mathbb{R}$. When it comes to the pregnant patients, the FDA says that if the information would be beneficial, then it's acceptable. But in light of the high risk for pregnant patients in general, they prefer to delay $\mathbb{R}$ until after the first trimester. That's the FDA statement. ACOG says it's reviewed on a case-by-case basis. There's no known biological effects have been observed in research that I'm aware of that, although mechanisms could cause adverse effects.

And I believe that was, that was it. So that's sort of a quick-and-dirty overview of MR physics.

JAMES FUTCH: Thank you. RANDY SCHENKMAN, CHAIRPERSON: Any questions for Mark?

JAMES FUTCH: Keep us on the schedule. The equation at the beginning, right? The Larmor equation.
(Applause)
JAMES FUTCH: This is, Mark, if I remember right, you took this from your in-house training that you do for your --

MARK SEDDON: Correct. So this is some of the in-house training that we do for all the staff who work in $M R$ Level I, Level II training. We also -we have an intraoperative $M \mathbb{R}$ suite which is in the OR. There's a lot of extra training that has to go on to make sure everyone is aware what they can and cannot bring in. So we got through, not the physics part so much because that's, they don't really want to hear about that usually. But all the safety part of it. They want to see that, you know, the -- well primarily, the static field concerns. That's the primary thing we're concerned about.

But for the technologists, they have to be aware of additional issues with regards to the varying gradient fields and the SAR issues with regards to patients.

JAMES FUTCH: And SAR limits it to .4 watts $/ \mathrm{kg}$. It looks like that comes from the same safety standards that guides things like the cell phones and it's all based on the body's ability to get rid of excess heat without temperature rise.

When you look at events that have happened, the child in the New York is like the one everybody remembers. But if you look at FDA device experience network, you'll see instances of patients with improper test leads. Usually someone who can't feel anything who, you know, they picked up the RFU and then put the leads on the patient and then discovered -- and then saw the burn.

MARK SEDDON: Yeah. Things fairly, I don't want to say common, but it does happen. So we do see a lot of issues where questions are raised about leads that you can't remove or broken leads and patients with very similar neuro stimulating devices.

That had it and how to handle those. I know some of the folks who maybe clinically do it. Maybe you guys may have come across those more frequently. JAMES FUTCH: In the ionizing world, I think we're used to controlling things to the level of stochastic effects. We're trying to prevent an increased rate of chance of any cancer later in life. No so much the cumulative effects. This is like the opposite. There are definitive acute effects that occur and have occurred.

MARK SEDDON: Exigent radiation would be like
skin doses.
PAUL BURRESS: During maintenance, there's other hazards. Helium wants to go straight up. Like you said, it's lighter than air. And most rooms are designed like this with a drop ceiling and the exhaust fans are at the drop ceiling. They will handle that if it's a slow leak. But like, during maintenance, helium can pool up there. So if you have a maintenance worker go up above the dropped ceiling and it's not ventilated and there's no holes in it, if it's a sealed floor above or roof above, they can get asphyxiated up there. So it could become an oxygen-deficient atmosphere.

Nitrogen mixes with air pretty readily. When it's cold, it will sink and it can pool out in bays or holes in the floor. As it warms up, it will tend to dissipate. But it's things to watch. So you have to watch the areas above and below.

I don't know, we've seen that. If it's a catastrophic failure, you're going to see the condensation. The moisture in the air is going to freeze and you're going to see the white cloud. So it's not like you really have to worry about a catastrophic release and nobody noticing it during normal operation. But during maintenance, I'd watch All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
the areas above and below. Maybe check them with O 2 meters or something. That's the only other hazards I've seen around magnets.

KATHY DROTAR: You make more of a case for having properly trained people in place for when these exams are done.

MARK SEDDON: Right. Yes. So, you know, I think that goes back to being, besides being the technical expert, the technical expert on actually how to --

KATHY DROTAR: Yeah.
MARK SEDDON: -- because it's a completely different type of science than what we do in x-ray. So understanding spin echo sequences and all that part of it is completely different. But the fact is the $M \mathbb{R}$ technologist is the gatekeeper in that environment. They are the ultimate person who screens every single patient and makes sure everyone is educated, so they have to be educated and have the knowledge to do it.

KATHY DROTAR: And like you said, people not -the other people outside of the technologists can't go beyond a certain point. And even if it's something that's needed, an oxygen canister or clip board that's going to -- it could have a, not a good
outcome.
MARK SEDDON: Yeah. Housekeeping tends to be one of the common -- in a hospital environment at least -- usually it's housekeeping where you have a problem with them taking buckets and brooms and things of that nature into the scanner room. Because, like I said, usually you can go in and if it's a 1.5 tesla magnet, the forces are not quite as strong, unless you get really close to the magnet, itself. So they can go in and go around the peripheral and they do kind of this balancing act where they go around the peripheral around the room and clean up the room.

If they go into a 3 tesla magnet, they aren't aware there's a difference in the strengths.

KATHY DROTAR: Yeah. And if you think about the number of people that may forget, technologists that forget to remove a necklace when you're doing a chest x-ray, and oh, okay. You might have to repeat the film. But now something, an artifact gets left on, and you're heating it up and burning the patient or having it magnetized.

MARK SEDDON: Yeah.
JAMES FUTCH: So I know it's getting a little bit to the middle part of the afternoon. Is there
any discussion -- any direction that the council wants to go in, hold off until next meeting or say something today or --

ARMAND COGNETTA: I mean, the public perception is that $M R$ is probably in the radiation, in the imaging field; so therefore, if there's any kind of catastrophe, I think they're going to look to this department and so, you know, if there isn't any, I mean, is this the only state around that does --

JAMES FUTCH: By no means, because my own two cents on this is, these technologies, especially this one, non-ionizing, but $\mathbb{M}$ is like the last, the last non-ionizing technology that kind of became in widespread use outside of research in the 1980s, the early 1980, mid 1980s, and this law, you know, was enacted in '78. And by then, I think the regulatory philosophy, in general, it started kind of moving away from let's regulate it to let's kind of let them -- the private sector kind of figure out everything.

For whatever reason, whatever your theory is, it kind of came along last. And it was completely different from ionizing. So none of the ionizing protections in the laws; things like that, would really help this much at all.

So you've had insurance reimbursing parts of the world through the accrediting agencies, kind of coming at it from the back side. Saying, you know, someone needs to make sure these things are looked at. That works from the hospitals, I guess, fairly well. The smaller facilities that are outside that environment, maybe not so well.

PAUL BURRESS: There's some building code, fire code protections, too, that are built in for some of these issues that we're talking about that aren't patient related. They do get inspected. I don't exactly know what the legal requirements are versus what we institute, you know, when we cited the $\operatorname{MRI}$. But there was a lot that the architects and engineers had to learn before they --

MARK SEDDON: Outpatient based versus inpatient based have different coding requirements.

PAUL BURRESS: And the manufacturers have it almost turn key. They will tell you what systems you need to put it in safely and operate it safely. But the oversight, I think, is in the fire, it's in the life safety world, what the fire departments are right now. So that can vary by county.

MARK SEDDON: I think the gatekeeper is still the technologist who's actually operating the All Good Reporters, LLLC (321) 285-2324 www.AllGoodReporters.com
system. That's really --
PAUL BURRESS: For operations.
JAMES FUTCH: Or the non-technologist nurse who was walking by and heard the anesthesiologist call for oxygen and did what he said and went and got oxygen and brought it back and just didn't know as much about how the cylinder will work in that environment.

MARK SEDDON: We have an intraoperative system, so as you know, in the OR, the nurses are used to just kind of cutting through rooms. So there was a whole change in the philosophy for that area to make sure they're aware that in one room, you know, there's all these extra things you have to worry about because you constantly have things in their gowns and, you know, projectiles you have to be aware of.

PAUL BURRESS: What about a metal detector scanning patients? Is that pinned down anywhere?

MARK SEDDON: They don't recommend using because of their efficiency is reduced in a magnetic environment so I've seen that as a concern.

PAUL BURRESS: You can prescreen before in the waiting room, though, away from --

MARK SEDDON: Way far away.

JAMES FUTCH: I mean, obviously, this is really different. It seems to me when I was looking at this three years ago, I had more people telling me what they do is they do a survey and they ask. And then they gave some examples of situations that didn't always work so well. You may not remember or no, you know, be able to respond appropriately. Oh, yeah. I forgot.

And then there was a category of people who had granulators and clips and a number of things done a long time ago and didn't know what the material was and how it would react. If there was a question on whether or not there was something inside, most of them said they would x-ray and look for something. A particular kind of thing that -- if there was a question. Not just randomly x-ray somebody, if there was a question about something.

RANDY SCHENKMAN, CHAIRPERSON: The other thing is when your patients are coming in on stretchers and aren't capable of going, you know, through a metal detector, it's obviously going to be positive or in wheelchairs; things like that. That becomes an issue as well, especially hospital-based stuff.

KATHY DROTAR: If you have a patient that codes, you've got to get them out of the $\mathbb{M}$ room. Alf Good Reporters, LLLC (321) 285-2324 www. Alf GoodReporters.com

You can't do anything in there.
MARK SEDDON: Right.
KATHY DROTAR: And you know --
MARY HART: Is that being trained to -- I
should know this part. Are they trained to take the patient out if they code rather than calling the code?

KATHY DROTAR: Anybody that I've talked to that's in $M \mathbb{R}$, that's their standard protocol is to remove the patient from the room. You can't bring your cart in.

MARY HART: That alone, that seems like there should be a regulation between --

REBECCA McFADDEN: They do have MRI-approved things that you could, code carts and all of that. But they are so expensive, it's not even --

MARY HART: Well, also people would run into --
REBECCA McFADDEN: Also, if you swap anything out, you have to have everything -- the code carts have to be completely changed out. If any of the locks are broken. So I mean, the best practice is to undock them and get them straight out of the room.

MARK SEDDON: If you do a sedation, you're required to have a code cart in the area. That's a Alf Good Reporters, LLLC (321) 285-2324 www. AlfGoodReporters.com
requirement. Like I said, generally, it's a specific one that's $M R$ safe.

REBECCA McFADDEN: Right.
MARK SEDDON: The scope, the policy or practice, every site has is to remove the patient from the room immediately.

REBECCA McFADDEN: Yeah.
MARK SEDDON: It's not so much the cart, itself. It's the fact the response team coming in -- they don't --

REBECCA McFADDEN: Yes. Everything.
KATHY DROTAR: Go ahead.
MARY HART: So is the question whether there should be a motion, when you said do it now or wait?

JAMES FUTCH: Let me go back to the statute. There's no requirement to do anything at all yet today. Let me see if I can bring it back up.

MARY HART: I mean, it makes sense to me at least.

REBECCA McFADDEN: I think we all agree this is
a --
MARY HART: A need.
REBECCA McFADDEN: -- there is a safety risk.
MARY HART: What is the process?
MATTHEW WALSER: What's the best step to go
next, go forward?
JAMES FUTCH: Let me throw this up here. Not required to be registered. 3-8 laser, supposedly. So this is the Council shall part: Make recommendations on matters relating to the practice of radiologic technology, matters relating to radiation protection. And so both of those touch this from the standpoint of, you know, most of the country considers this to be part of the practice of radiology technology. It involves radiation protection, for all kinds of reasons we were talking about before that Mark just described. Physical hazards and the other stuff.

And then study the utilization of $\mathbb{M}$ and make recommendations to the department or the person appropriate to conduct such procedures and minimum qualifications for each.

So in my head, it's those three things, or maybe it's two things if you want to look at it. Are there hazards that need to be dealt with through radiation protection mechanisms, and are there -does the Council have any thoughts on the subject of the personnel appropriate to conduct these procedures.

So those could be motions, but I don't know if
we're to the point where you want to say anything yet.

MARY HART: I think something needs to be -JAMES FUTCH: You could agree, you could agree that, yes, medical $M R$, you know, is the practice of radiologic technology. Personnel appropriate to conduct it would be people who are certified in $M \mathbb{R}$ and by one of the national registries. And could -that would be one thing.

You could say persons operating this and the devices on the patients need to use appropriate radiation protection mechanisms to deal with the hazards that were discussed by Mark. Some of which are, you had some organizations which you cited. MARK SEDDON: ACR, FDA.

JAMES FUTCH: You could always agree with ACR's recommendations.

RANDY SCHENKMAN, CHAIRPERSON: But it wouldn't be exactly radiation protection. It would be the recommendation by those groups specifically for this. It's not the radiation control, it's --

REBECCA McFADDEN: So the motion could possibly be that the Office of Radiation Control recognized magnetic resonance imaging as, you know, to be governed under the auspices of radiation protection
or, I mean, because, like you said, it's not really anywhere. You have to first get it where it needs to be and then start.

JAMES FUTCH: I think you should start out first by just dealing with what this says and is there or is there not a recommendation that, what kind of personnel are appropriate and is there a hazard. Actually, is there a hazard and is there personnel appropriate.

REBECCA McFADDEN: Right. So could we motion that MRI is a hazard?

KATHY DROTAR: Recommendation.
RANDY SCHENKMAN, CHAIRPERSON: MRI has hazards and the appropriate people are those that are certified by national societies.

JAMES FUTCH: How does that sound?
KATHY DROTAR: Are recognized national certification -- boards.

KELLY NESMITH: More than AART.
JAMES FUTCH: I don't think we've gotten to that point.

KATHY DROTAR: The what?
KELLY NESMITH: There's another registry for MRI?

KATHY DROTAR: Yes, there is.

PATRICIA DYCUS: So why don't you say qualifying?

KATHY DROTAR: Couldn't we just make the recommendation that we look for -- that based on our conversations today, that there is a need for further investigation of the hazards involved and the agencies that would provide the guidance between now and the next meeting?

JAMES FUTCH: Sure.
MARY HART: I don't know. It seems like another six months waiting to make a recommendation.

REBECCA McFADDEN: We all agree now.
ARMAND COGNETTA: In order to assure patient safety, qualified personnel, which would include those who have done a national, you know, safety -in order -- I mean, they should start out, in order to assure patient safety, only individuals who are nationally recognized -- is it --

STACY LOWE: Certified.
ARMAND COGNETTA: Nationally certified in the use of $\mathbb{R}$ should be allowed to operate.

REBECCA McFADDEN: Operate.
KATHY DROTAR: Is there wording already that we could parallel off of for, about who's registered?

PATRICIA DYCUS: Well, the RA, you did
something similar to that. In the qualifying, qualifying organization.

JAMES FUTCH: Yeah. We've recognized AART and NTCB for, already for other purposes for radiation personnel on the ionizing side. Actually, previously we had recognized the AART for $\operatorname{MR}$. You can go back to, you know, you could say, well, you know, what you had before was what you wanted. You had --

RANDY SCHENKMAN, CHAIRPERSON: But now we also have ACR. We have --

JAMES FUTCH: For the transmission. For the facilities side of what you're talking about.

MARK SEDDON: One issue to think about. There's been a -- because of the new joint Commission and ACR requirements, there's now, quote, "certifications in $M R$ safety". So you may -devil's advocate -- you may have the debate that, well, is there a difference between an $\operatorname{MR}$ technologist certification for the medical practice versus $\mathbb{M R}$ safety certification for somebody who is a gatekeeper.

MATTHEW WALSER: Or both.
MARK SEDDON: Or both, exactly. Or how much of $\mathbb{M}$ safety is incorporated within the certification All Good Reporters, LLLC (321) 285-2324 www.AllGoodReporters.com
for the $M R$ technology. I don't know that.
MATTHEW WALSER: How many national -- how many certifying groups are there nationally?

REBECCA McFADDEN: Well, I mean, the AART and the ASRT. But AART is the American registry.

STACY LOWE: The society.
KATHY DROTAR: ASRT would develop the curriculum for MRI and JRC would -- has a standardized program that you can register.

REBECCA McFADDEN: And the JRC -- so where does the AART fit into that? Because, I mean, that's the American Registry, or radiologic technology, which is recognizing magnetic resonance imaging.

KATHY DROTAR: They are the certifying board for technologists and ASRT is planning to develop a curriculum that you would use for the program.

REBECCA McFADDEN: So the AART is certifying the technologist. And wouldn't that be enough to require that the technologist performing the exams are AART certified in order to complete those -- I mean, that would be the safest possibility as far as what you recommend.

RANDY SCHENKMAN, CHAIRPERSON: You said there's another certification.

JAMES FUTCH: Yeah, there's more than one
national $\mathbb{M R}$ registry.
KATHY DROTAR: Isn't there a recent --
KELLY NESMITH: It's like a separate MRI, a MRI registry.

JAMES FUTCH: Let's back up because I know we have some folks that have to leave at some point. We have some other material. Perhaps we can agree on a motion that at least addresses the issue, something like -- feel free to jump in.

The Council believes that there are definitive physical hazards associated with the magnetic resonance imaging operation, which warrant appropriate radiation protection measures. Too vague?

Rita, do you want to read that back?
(Reporter complied with above)
RANDY SCHENKMAN, CHAIRPERSON: Not radiation. JAMES FUTCH: So we would say -- sorry, go ahead.

MARY HART: MRI safety.
EFSTRATIOS LAGOUTARIS: Or patient safety.
JAMES FUTCH: Appropriate safety.
RANDY SCHENKMAN, CHAIRPERSON: Patient safety measures.

MARK SEDDON: Patient safety measures.

MARY HART: And training. EFSTRATIOS LAGOUTARIS: Or training and certification.

ARMAND COGNETTA: Requiring training and certification.

JAMES FUTCH: So what Rita said before, except instead of radiation protection, we're saying patient --

MATTHEW WALSER: Safety measures.
JAMES FUTCH: Safety protective measures.
That's just the first half of it. Okay. And that addresses all the physical hazards. And then --

ARMAND COGNETTA: Which require -- which -JAMES FUTCH: And also feels that these -- that one way to address these.

ARMAND COGNETTA: Can be addressed by the use of.

JAMES FUTCH: Can be addressed by the use of --
ARMAND COGNETTA: National --
REBECCA McFADDEN: Nationally recognized.
RANDY SCHENKMAN, CHAIRPERSON: Nationally certified.

REBECCA McFADDEN: Certified.
JAMES FUTCH: MRI.
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REBECCA McFADDEN: MRI operators. JAMES FUTCH: Okay. I think we understand the motion.

KATHY DROTAR: Can she read it back?
JAMES FUTCH: Rita, can you read that one more time.
(Reporter Complied with Above)
JAMES FUTCH: The Council believes there are definitive hazards associated with the MRI environment is that what we said? I'm trying to write --

KATHY DROTAR: That's good.
MARY HART: Which requires protective measures for patient safety.

REBECCA McFADDEN: Magnetic resonance.
MARY HART: Which requires protective measures for patient safety.

JAMES FUTCH: Which require --
MARY HART: Protective measures for patient safety.

BRIAN BIRKY: Does it have to be patient safety? Can it just be safety?

MARY HART: And operator safety.
REBECCA McFADDEN: Environment.
ARMAND COGNETTA: Patient operational safety.

MARK SEDDON: Operational standards.
JAMES FUTCH: So are we including --
RANDY SCHENKMAN, CHAIRPERSON: And operational safety.

JAMES FUTCH: Operator?
RANDY SCHENKMAN, CHAIRPERSON: Operational.
MARK SEDDON: Because that would include
housekeeping and other folks who wander in.
ARMAND COGNETTA: Which is best addressed by --
MARY HART: National certification.
ARMAND COGNETTA: Licensure.
PATRICIA DYCUS: That doesn't say what they're licensed in.

MARY HART: Operation.
RANDY SCHENKMAN, CHAIRPERSON: They have to be certified nationally. MR nationally.

KELLY NESMITH: Are you going to address -- are we taking the national certifications or just the one?

MARY HART: I would say by --
ARMAND COGNETTA: With specific MR --
KATHY DROTAR: With specific --
RANDY SCHENKMAN, CHAIRPERSON: Specifically MR certified or licensed personnel.

MARY HART: By the use of. It should say
operators who are certified. Use of personnel.
MARK SEDDON: I know the ACR has
grandfathering --
PATRICIA DYCUS: Are requiring --
KATHY DROTAR: Who does?
MARK SEDDON: ACR. They have certification.
They also have, if you have so many years of experience.

KATHY DROTAR: Not for, not so much for technologists because it's going to be the number of exams that you've done and getting the sixteen hours, so --

RANDY SCHENKMAN, CHAIRPERSON: But that's how they get certified, right? They can't be certified without that.

MARY HART: Right.
ARMAND COGNETTA: As met by and then you can say and continuing --

MARK SEDDON: So the way it works for the ACR is that initial qualifications are ART, AR MRIT -RANDY SCHENKMAN, CHAIRPERSON: ARMRIT.

MARK SEDDON: ARMRIT, yeah. Registered as an ARMRIT technologist or ART registered and six months supervised MRI clinical experience or Associate's degree in allied health and certification in the All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
clinical imaging field which is NMTCB or ARDMS. MARY HART: Can you make a footnote to that effect? Asterisk?

MARK SEDDON: Maybe an asterisk.
MARY HART: Footnote what that certification refers to.

JAMES FUTCH: Just a second.
MARK SEDDON: They are pretty specific on what they say. And six months of experience. The ACR recommends -- but they do say they recommend they're certified, but they do say these are the minimum requirements. Canadian.

JAMES FUTCH: Sorry, guys. Just a second. Microsoft has taken control. BRENDA ANDREWS: Can you get back to what you typed?

JAMES FUTCH: I'm trying. See how it says it's not responding? I love the title it suggested. (Laughter)

JAMES FUTCH: Okay. RANDY SCHENKMAN, CHAIRPERSON: There we go. JAMES FUTCH: We're back.

MATTHEW WALSER: What about up on the second line, which require unique protective measures. Or does that make a difference?

JAMES FUTCH: I don't -- we'll keep it, I think we're better to keep it somewhat general.

Shall we say national or just licensed personnel?

MARY HART: Well, are there other licenses that might be floating around?

MATTHEW WALSER: Nationally recognized. MARY HART: Yeah, nationally recognized certification and licensing. Nationally recognized certification and licensure. But requiring the use of personnel still bothers me. It's like a passive way to say you want personnel who are trained in -JAMES FUTCH: Just say national registry. KATHY DROTAR: Yeah. JAMES FUTCH: Say national registry. MARY HART: Nationally recognized certification and licensure.

REBECCA McFADDEN: There you go.
RANDY SCHENKMAN, CHAIRPERSON: And after operational safety, you might want to put a period and say this is best addressed.

MARY HART: Yeah. Is that too vague? Should you say operators should be certified and licensed? RANDY SCHENKMAN, CHAIRPERSON: Personnel or just technologists? Are there other personnel
that --
JAMES FUTCH: I could say technologists. RANDY SCHENKMAN, CHAIRPERSON: -- that do this? I mean --

KATHY DROTAR: Under the --
KELLY NESMITH: Well, licensed practitioners, wouldn't they be -MARY HART: Yeah, that's good. KATHY DROTAR: Or RAs. MARK SEDDON: Well, for ACR, they have limited to technologists -KATHY DROTAR: And RAs. MARK SEDDON: -- RAs, Associates or Bachelor degree in allied health field with certification. RANDY SCHENKMAN, CHAIRPERSON: Just leave it as personnel.

MARK SEDDON: Yeah, personnel.
RANDY SCHENKMAN, CHAIRPERSON: I think that's better.

MARK SEDDON: Or they give a final one that you've performed an MRI or licensed since 1996. JAMES FUTCH: You don't want all the personnel to be certified. You just want people operating it, right?

MARK SEDDON: Correct.
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RANDY SCHENKMAN, CHAIRPERSON: Anybody have anything else to add to this?

MARY HART: I have a degree in English writing, by the way, my undergraduate.

JAMES FUTCH: Fix it.
MARY HART: Okay. This is best addressed by requiring the use of personnel. You never said what you're requiring them for in the sentence before, so the second sentence has to be changed. So this, instead of saying this is best addressed by requiring the use of personnel --

KATHY DROTAR: MR safety is best --
EFSTRATIOS LAGOUTARIS: This goal is best addressed by requiring --

JAMES FUTCH: Situation.
MATTHEW WALSER: To insure maximum patient safety.

ARMAND COGNETTA: Maximum patient safety.
MARY HART: That's a great way to put it. To insure maximum patient safety.

ARMAND COGNETTA: Optimal patient safety.
MARY HART: Yeah. There you go. There you go. That's perfect.

JAMES FUTCH: I should say shall or should?
MARY HART: Should be certified. There you go.

EFSTRATIOS LAGOUTARIS: Should be required. KATHY DROTAR: Should be required. MARY HART: Yes, should be required. RANDY SCHENKMAN, CHAIRPERSON: Required to be --

MARY HART: Just be certified.
RANDY SCHENKMAN, CHAIRPERSON: Licensed by a nationally recognized --

MARY HART: Certified and/or licensed.
RANDY SCHENKMAN, CHAIRPERSON: Should be required.

MARY HART: There you go.
RANDY SCHENKMAN, CHAIRPERSON: To be certified.
MARY HART: And/or.
RANDY SCHENKMAN, CHAIRPERSON: And/or licensed.
JAMES FUTCH: What terminology are we using?
BRENDA ANDREWS: Shall. If it's a requirement, it must be shall.

KATHY DROTAR: Shall be.
BRENDA ANDREWS: You have to say shall be certified.

WILLIAM ATHERTON: Shall be required.
KATHY DROTAR: Shall be certified.
JAMES FUTCH: We're back to this.
RANDY SCHENKMAN, CHAIRPERSON: Shall be
certified.
PATRICIA DYCUS: And licensed because doesn't the state license them and the organization certifies them?

KELLY NESMITH: We don't license them.
PATRICIA DYCUS: Well, no, but --
JAMES FUTCH: I think we covered both of them and said and.

RANDY SCHENKMAN, CHAIRPERSON: Okay. That sounds good.

So can we make this motion? Everybody in favor, say aye.

ALL: Aye.
RANDY SCHENKMAN, CHAIRPERSON: Wait, we need a second first.

MATTHEW WALSER: I second it.
RANDY SCHENKMAN, CHAIRPERSON: Everybody in favor, say aye.

ALL: Aye.
RANDY SCHENKMAN, CHAIRPERSON: Anybody opposed?
(No Response)
RANDY SCHENKMAN, CHAIRPERSON: Okay. So we're going to make this motion.

JAMES FUTCH: Thank you. I'll try and save this. Hold on a minute. Take a picture. All right.

Now, I have a few more things.
RANDY SCHENKMAN, CHAIRPERSON: Okay. Now we need to go on to our administrative items. So in your handout, we have the bylaws.

Would you like to take over?
BRENDA ANDREWS: The reason we're bringing the bylaws up to date are two reasons. The first one, we looked at the bylaws and saw under Article V, regarding meetings, there was Number 2 that says the year shall begin October 1 and September 30th. And I couldn't find anywhere in the statute that referred to the year beginning in October 1st and really didn't know why. This was put in the bylaws at some point in time.

So we wanted to bring that back up before the committee today, the council today to see if you want to change that to either the fiscal year or a calendar year. One that falls more in line with the state calendar or fiscal year.

ARMAND COGNETTA: What makes more sense to you?
BRENDA ANDREWS: Well, the fiscal year is from July 1st until June 30th. Of course, you know the calendar year.

WILLIAM ATHERTON: Is there a problem with the
way it is now?
BRENDA ANDREWS: It doesn't coincide with our year. So it's kind of --

WILLIAM ATHERTON: It does create problems.
ARMAND COGNETTA: It creates a problem.
BRENDA ANDREWS: When we have to do our annual reports --

JAMES FUTCH: Annual reports.
BRENDA ANDREWS: -- the annual reports, they are based on a fiscal year.

EFSTRATIOS LAGOUTARIS: May I ask a question? BRENDA ANDREWS: Yes.

EFSTRATIOS LAGOUTARIS: If we convert appointing members, is that what we're talking about, appointing or making the Board coincide with the fiscal year of the state?

BRENDA ANDREWS: The meetings when we meet. This is under Article V for the meetings.

EFSTRATIOS LAGOUTARIS: Okay. There are two meetings a year. Okay. I misunderstood. Okay.

BRENDA ANDREWS: So this is really saying the year for the meetings is between October 1st and September 30th.

For our annual reporting, that's fairly new. We've been doing that for the past, maybe a year All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
now. They've developed a process of us reporting out what's going on with the year. How many meetings we have in a year. Our goals for the year; those kind of things. And that's based on the fiscal year.

MARY HART: So that would be due in June, basically? Since your fiscal year ends in June?

BRENDA ANDREWS: It ends in June. We do one, I think it's December, and then another one in June.

MARY HART: So I'll motion to change the meeting year from July 1 through June 30th.

EFSTRATIOS LAGOUTARIS: I second.
RANDY SCHENKMAN, CHAIRPERSON: Okay. Anybody have any discussion on it?
(No Response)
RANDY SCHENKMAN, CHAIRPERSON: So everybody in favor, say aye.

ALL: Aye.
RANDY SCHENKMAN, CHAIRPERSON: Anybody opposed? (No Response)

RANDY SCHENKMAN, CHAIRPERSON: Okay. So that motion passes.

BRENDA ANDREWS: Okay. And because it's also states in the bylaws that for voting on the chairman and vice chairman person, it should be done every All Good Reporters, $\mathcal{L L C}$ (321) 285-2324 www.AlfGoodReporters.com
year and we really haven't addressed this before now.

The last voting was in 2013. So on the agenda today, we were supposed to vote again for a new chairperson and vice-chairperson. We planned to do that, but the other thing is we want to address that. Do you want to continue doing this every year, or do you want to change the bylaws to meet the term a person is in, which is three years? And then we won't have to do this every year; instead, it would be every three years before you vote again.

MARY HART: It makes sense. What do the people who hold the position say?

JAMES FUTCH: Are you happy where you are?
RANDY SCHENKMAN, CHAIRPERSON: I'm happy where I am. Are you happy where you are? If you guys are happy with us.

MARY HART: Right. But I mean, you want it to be a three-year term? It makes sense.

RANDY SCHENKMAN, CHAIRPERSON: I tell you what my thoughts are. I think that if you have to change it for, potentially change it every year, I think it's going to be a lot more disruptive to the committee.

KATHY DROTAR: Yeah.

WILLIAM ATHERTON: Also, there's only two meetings a year.

MARY HART: Right.
WILLIAM ATHERTON: There's only six meetings.
ARMAND COGNETTA: There should be some overlap in case something happens.

REBECCA McFADDEN: Ten years?
(Laughter)
REBECCA McFADDEN: Do you guys want to serve as the chair and vice-chair? That's what we'll make it.

WILLIAM ATHERTON: Until impeached.
(Laughter)
RANDY SCHENKMAN, CHAIRPERSON: We're in trouble.

MARY HART: Or step down.
JAMES FUTCH: What do we do at that point?
RANDY SCHENKMAN, CHAIRPERSON: So what discussion does anybody want to have on this?

KATHY DROTAR: So we would be changing when the person's elected, they would then serve for a three-year term, is that what we're saying?

RANDY SCHENKMAN, CHAIRPERSON: And then they would come up for reelection or elect somebody else.

WILLIAM ATHERTON: I so move.

KATHY DROTAR: I second.
RANDY SCHENKMAN, CHAIRPERSON: Okay. Should we vote on this? Anybody have any discussion before that?
(No Response)
RANDY SCHENKMAN, CHAIRPERSON: Okay. So let's vote. Everybody in favor, say aye.

ALL: Aye.
RANDY SCHENKMAN, CHAIRPERSON: Anybody opposed? (No Response)

RANDY SCHENKMAN, CHAIRPERSON: So it will be a three-year term.

KATHY DROTAR: Welcome back for three years. JAMES FUTCH: Yeah, I was just going to say. BRENDA ANDREWS: That's the first part of it. Now we have to still do a vote because it's already been three years.

KATHY DROTAR: Oh, okay.
RANDY SCHENKMAN, CHAIRPERSON: Because the last was, last was 2013.

BRENDA ANDREWS: September 2013.
RANDY SCHENKMAN, CHAIRPERSON: Is there anyone else who would like to --

MARY HART: -- run for election?
RANDY SCHENKMAN, CHAIRPERSON: Be chairman or

Vice Chairman before we vote on the two of us?
WILLIAM ATHERTON: I move to keep the current leadership.

KATHY DROTAR: I second.
REBECCA McFADDEN: I second.
JAMES FUTCH: Third and fourth if I could.
KATHY DROTAR: We'll just go around the room. RANDY SCHENKMAN, CHAIRPERSON: Okay. Does anybody have any discussion on it?
(No Response)
RANDY SCHENKMAN, CHAIRPERSON: Okay. So let's vote. Everybody in favor of keeping the current leadership, say aye.

ALL: Aye.
RANDY SCHENKMAN, CHAIRPERSON: Anybody opposed, say nay.
(No Response)
RANDY SCHENKMAN, CHAIRPERSON: Okay.
KATHY DROTAR: Thank you.
RANDY SCHENKMAN, CHAIRPERSON: We're here for three more years.

KATHY DROTAR: Thank you both.
BRENDA ANDREWS: Thank you for that.
STACY LOWE: I hope they were all that easy. RANDY SCHENKMAN, CHAIRPERSON: That's because

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you know us already.
MARY HART: Inexpensive campaign. You should teach the federal leadership.

KATHY DROTAR: Not one negative word.
RANDY SCHENKMAN, CHAIRPERSON: Okay. Brenda, is there anything else in the bylaws?

BRENDA ANDREWS: Well, we wanted to talk about -- no, in the bylaws, no. That was -- those were the two main pieces.

RANDY SCHENKMAN, CHAIRPERSON: Next was the goTravel.

BRENDA ANDREWS: Kathy Drotar and I did a little demo with the goTravel because this was a very confusing process to begin with.

When we started out, we couldn't get all the members' names put in. And I started out sending e-mails to some of you to go in and do your travel or sign in, and there were complications. I'm not sure if all the kinks are worked out for everybody right now, but everybody's names have been included in the goTravel system with your e-mail addresses as the one that I have for you.

So if there are -- if any of those e-mails need to change that I have for you, that will be the first thing that needs to happen. And if that's not All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
case, we won't try this again until it's time for the next meeting.

But Kathy and I went through a little demo last week where I prepared a travel authorization for her -- it was a dummy travel authorization, it wasn't a real one -- and I submitted it to her and I asked her to tell me what she sees.

The problem I have was, the DOH travel is different from people that are outside of DOH. So what they see might have been different from what you see when you pull it up. Because everything is pulled from PeopleFirst and the supervisors are already in there. For instance, James' supervisor's name would have automatically gone in based on all of his information from PeopleFirst. But for people outside of DOH, we had to program everything. So for you, it was programmed based on your e-mail addresses, and all of your mailing addresses; information that I have.

Also, Janet Cooksey, which most of you remember, is set up as your supervisor, because it has to go -- flow through somebody to approve it on DOH's end.

So it sounds a little bit confusing, but once it starts to flow, it is really a simpler system All Good Reporters, LLLC (321) 285-2324 www. AllGoodReporters.com
than what we're having to do right now with the paper. So Kathy helped me. I sent a dummy travel authorization to her; she responded back.

So Kathy, when you got it, you saw -- I'm sorry, I don't have screen shots because this was done very quickly for me at the end. But you saw a screen that came up to show you your --

KATHY DROTAR: Password and log in name. User name and password.

BRENDA ANDREWS: And ironically, that's the same screen that we see. So you all will see the same one that we see. So when that screen comes up, if I send you an authorization, you're going to get an e-mail that says, do not reply. But there's a link in that e-mail that you will click on. So when you click on the link in that e-mail, it is going to take you to the goTravel system.

Once you get to the goTravel system, a screen will shoot up that says, user name and password.

Now, when you -- since you did not -- had not signed in --

KATHY DROTAR: Right.
BRENDA ANDREWS: And you put in your user name, which was your e-mail address?

KATHY DROTAR: No, it wasn't. It was my
credentials and I typed in $K$ and it auto populated.
BRENDA ANDREWS: Really?
KATHY DROTAR: Yeah. I didn't know what it was going to be so I just hit K. That part came up and -- but I didn't know a password. So I went to forgot password, and then it sent me the link to reset it. It gave me a code to put in. And you have the link to go to site and then put in the code name and then I could go back in and reset the password and do it that way.

BRENDA ANDREWS: Okay. Did you not see something that said to sign up or register? KATHY DROTAR: No, uhn-uhn. BRENDA ANDREWS: Okay. That's helpful to me. WILLIAM ATHERTON: I got the same -- I got as far -- I didn't get as far as she did. I got to the screen that said user name and password and then I was stumped.

BRENDA ANDREWS: Did you put anything in there? WILLIAM ATHERTON: I put my e-mail address, but I didn't have a password.

BRENDA ANDREWS: But you put a K and it pre-populated? What did it populate for you? KATHY DROTAR: I think it was Kathleen M. Drotar, RTDMEDRTRNT.

BRENDA ANDREWS: Okay.
KATHY DROTAR: Which I would like to change because I never remember.

JAMES FUTCH: Now that I think of it, that was probably the last one.

BRENDA ANDREWS: What I'll need to do is ask goTravel where you're pulling their user names from.

KATHY DROTAR: I think it was my name, the way it populates.

JAMES FUTCH: It populates on the reports that you're giving them. Her full name --

BRENDA ANDREWS: But what I had to give them was your name, everyone's names, their e-mail addresses, and your address and your Social Security numbers. So that was the information that was provided to them.

In the booklet where we went through training, it said that the e-mail addresses was what will be used as user names. So you're saying that's not the case. So I need to get with goTravel again and say, where are you pulling their user names from because now I have no idea what your user names will wind up being.

KATHY DROTAR: That and if that's case sensitive or something or needs a period or comma, Alf Good Reporters, LLLC (321) 285-2324 www. AlfGoodReporters.com

I'm done for.
WILLIAM ATHERTON: Then
what is the password supposed to be?
BRENDA ANDREWS: What she's saying is that you click forgot password, and then it's going to send you another e-mail with a link to go in and change it.

WILLIAM ATHERTON: Okay.
BRENDA ANDREWS: So technically, I guess you don't have a password.

KATHY DROTAR: It was sort of like a registration. It recognized you as a user name, but then you had to register by going to the other link, without them saying that that's what you were doing, and create your password once you got the code.

BRENDA ANDREWS: Okay. Then once you got the code and you changed -- you did your password, it's not giving you an opportunity to change your user name at that point.

KATHY DROTAR: No.
BRENDA ANDREWS: The user name is whatever came up. Then you put in the new password that you created.

Are there any security questions that it asks you at that point?

KATHY DROTAR: I think it did. It asked you for a security question when you changed your user name.

BRENDA ANDREWS: Once you got there.
KATHY DROTAR: Yeah.
BRENDA ANDREWS: Okay. So I'm learning this system as well. This has been a little bit confusing for all of us because when they started the system, they had not worked out all the kinks.

JAMES FUTCH: No, really?
BRENDA ANDREWS: I pray -- hope you bear with me until we get this done. In the meantime, you will see on your desk that I did paper travel for you like we've been doing in the past.

RANDY SCHENKMAN, CHAIRPERSON: Right.
BRENDA ANDREWS: Because I had to have you authorized to travel. What I will do when I go back, I will check on some things as far as your passwords. Would you prefer that being your e-mail address as your passwords? That be would be the easiest.

REBECCA McFADDEN: Yeah, as our user name.
BRENDA ANDREWS: I mean user name. Okay. I'll see if they can change all of that. It may take another five months, like it did to get everybody's
name in, but --
REBECCA McFADDEN: Maybe it pulled your name on your Social. Did it do that?

KATHY DROTAR: No. It didn't reference my Social at all. But once $I$ got in, it very nicely populated where I was traveling from and to and had the mileage there.

REBECCA McFADDEN: Nice.
BRENDA ANDREWS: See, that's on my end. Just like I prepared the paper for you all, I will go in, I will prepare all the -- I do all the research, you know, as far as flights and do all the estimates and all that kind of thing. Most of the times it's still going to be estimates. It may not be exact as far as, like, an air fare for you or you. And mileage is usually pretty much on target because $I$ use the Google Maps and all of that.

So it's still going to be an estimate, even though it's your authorization. So unless there's something, like, really outlandish that I've done in there that's completely wrong, you would go in and accept that. And once you accept that, then it moves to the next person, which is Janet.

Janet will approve it, unless she sees something that's outlandish that I've done. If she
sees something that's outlandish, when she rejects it, it comes straight back to me. So if you see it coming back to you again, that means up the line somewhere, it got rejected and I have to fix something in it and then send it back to you. So don't be surprised if you see it coming back again for whatever reason.

But there would be notes in there where you can see what happened. Because any time it's rejected, someone has to say why it's rejected. And that's the other thing. If you see something on it, whenever I send it to you, and you want to reject it and say, Brenda, this was not -- you got my address wrong or you did something incorrect or my mileage is not right, you would put that in notes any time you have to reject it. I don't think you can actually even send it back to me until you put a note in there, because it requires that. So you will tell me why. I would fix that and send it back to you.

So as soon as we get all the kinks worked out, I think it's really going to be a nice system because it's clean. No paper's involved. Everything gets attached. I scan everything in and it's attached. PDF files are attached to it so all
the attachments are there. So it's really -- it really is a nice system once we get going with it.

But I couldn't figure out what was going on on your end, and Kathy help me with that.

JAMES FUTCH: So Brenda, are they in the same boat we are? In that, before we can travel, it has to be approved?

BRENDA ANDREWS: Correct.
JAMES FUTCH: You can't go back afterwards and pretend we approved it. Not that that ever happened.

BRENDA ANDREWS: No. As a matter of fact, this is probably more important that we do it ahead, in front because now you have an electronic record of when it was done. You can't -- it's not a piece of paper where you can, you know, go back and, which God forbid.

JAMES FUTCH: I never backdated a signature in my life.

BRENDA ANDREWS: Who does that? But, yes, there's a date stamp, time stamp on it now when it's done and when it's signed.

WILLIAM ATHERTON: So for this time, we're supposed to send you the paperwork and do it online?

BRENDA ANDREWS: Uhn-uhn. For this time, I
just completely do the way we were doing. Most of you weren't even in the system for me to do it, so I refused to do half of you in the system and half of you on paper. I told them I'm going to do the council meeting this time on paper and then the next time around, I think we'll be okay with the electronic ones. So I will --

WILLIAM ATHERTON: It be all be done before we come to the meeting.

BRENDA ANDREWS: Yes. You'll get your travel authorization prior to that.

Then the other part of that is the reimbursement, it's also done electronically. So that's the end that you normally see on paper as well as you get your JA. You may not see that again. Once I type it up, I don't think you ever see that again. But you will see it now because you'll have to go in and electronically sign that as well.

KATHY DROTAR: I was going to say electronic signatures is going to be accepted?

BRENDA ANDREWS: Exactly. Just like the authorization, you'll go in and type your name in and then that will be your authorization for it. And I will send out notes on -- I'll send you guys All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
e-mails to let you know the step-by-step because I know this can be a little bit confusing trying to explain it without any screen shots.

I will send you step-by-step instructions based on Kathy helping me and what you see on your end, so we should be successful the next time around we have to do this.

But in the meantime, you have your paper forms. And if any of you want to sign and give me anything back today, you can do that. I have an envelope there for you to mail me back your receipts. So you can either hold on to everything or you can give me back your signature pieces and mail your receipts back in to me whenever you get them.

MARY HART: Do you need the gas receipts if we're only getting the mileage?

BRENDA ANDREWS: No.
MARY HART: Okay. All right.
BRENDA ANDREWS: No, I do not. Thank you for asking that. Any questions?

REBECCA McFADDEN: I put in the mileage.
BRENDA ANDREWS: Pardon me?
REBECCA McFADDEN: I filled in the mileage, but it doesn't matter. You're going to do from wherever we live, I guess, to here or does it matter?

Because it wasn't highlighted.
BRENDA ANDREWS: I have to see what you did.
REBECCA McFADDEN: On the worksheet, you didn't highlight the section for mileage. It's just the time I started and time I ended.

BRENDA ANDREWS: Your mileage was in there.
REBECCA McFADDEN: I did fill it in. It wasn't highlighted.

BRENDA ANDREWS: It's probably going to be the same, the standard from your point of headquarters, which if any of you need to change your point of headquarters that I have for you, it's going to either be your work address -- most times it's your work address. So if it needs to be a different address, then I need to know that.

So I use the Google Map. So it's pretty much going to be standard. Anything that's outside of what you put on there that I don't have, will be vicinity mileage. So you'll get reimbursed for the full mileage.

REBECCA McFADDEN: We should just e-mail you any address changes?

BRENDA ANDREWS: Yes, definitely do that. Any change in address, e-mail address, phone numbers, definitely do keep a roster of everybody's
information. So I do need to have changes if you have any.

Any questions?
MARK SEDDON: We're doing car -- you're assuming we're doing car rentals?

BRENDA ANDREWS: Pardon me?
MARK SEDDON: You're assuming we're doing car rentals?

BRENDA ANDREWS: The reason you see car rental on there is because we have a form that's called POV, personal -- privately owned vehicle. And there's a formula on there. And if it's comes out where a rental car and I -- that's a guess because I have to figure out a rental car in your area. There's a lot of research that goes into doing your travel. I have to actually go into --

RANDY SCHENKMAN, CHAIRPERSON: Is it easier to give you the receipts?

BRENDA ANDREWS: Yeah, that's after the fact. But all this stuff has to go through with the authorization. It's a ton of work to do beforehand.

The reason it says rental car, because rental car came out cheaper than driving your personal automobile. So if you drove your personal automobile -- and Becky, we talked about that one. All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com

REBECCA McFADDEN: Yes.
BRENDA ANDREWS: You know, you e-mailed about that. Just let me know that that was done because I'll have to figure out a reason. They don't like reasons like, because it saved time or because it was the -- would be able to make the meeting if they rented a car. So I usually have to figure up something that will justify you driving your car, and I usually do so. Don't worry about it.

MARK SEDDON: I never really noticed it before.
BRENDA ANDREWS: Okay.
RANDY SCHENKMAN, CHAIRPERSON: Anybody else have any questions on this? Okay.

So let's go on to old business. Is there anything in old business?

BRENDA ANDREWS: Anything you all thought of from last time that you didn't get answers on?

JAMES FUTCH: Last chance, Paul.
PAUL BURRESS: No old business. All concluded.
RANDY SCHENKMAN, CHAIRPERSON: Okay. Then
let's figure out the next meeting, date and location.

JAMES FUTCH: If we do October, is that what we're looking at?

BRENDA ANDREWS: I got the September calendar
in the packets and October.
JAMES FUTCH: September would be the 19th.
Excuse me, the 20 th or the 27 th. Actually, the 27 th is somewhat problematic. We have a whole operation going on in Tampa.

KATHY DROTAR: That's the same week as Astro. JAMES FUTCH: So for September 13th or 20th, then we jump ahead into October.

Any big meetings other than Astro to avoid? All the professional associations that you're all part of? September 20th, is that too late?

RANDY SCHENKMAN, CHAIRPERSON: September 20th seems to be good for everybody? Yes?

MARY HART: Yes.
KATHY DROTAR: September 20th.
RANDY SCHENKMAN, CHAIRPERSON: Okay. So let's put in for September 20th. If anybody has a problem, and --

BRENDA ANDREWS: Just if you do have a problem or something comes up, you can always just e-mail me.

WILLIAM ATHERTON: My meeting is the 28th. BRENDA ANDREWS: And where? JAMES FUTCH: Yeah. RANDY SCHENKMAN, CHAIRPERSON: Okay. Where do
we want to meet? Do we want to meet here again or do we want to meet back in Orlando? Does anybody any preference?

MARY HART: I prefer here.
JAMES FUTCH: Now that you know where this is and it's sandwiched between the airport and the rest of Tampa.

WILLIAM ATHERTON: My only preference is not to have another shuttle after the airport. But it is not a huge point. It's a small --

KATHY DROTAR: A shuttle?
WILLIAM ATHERTON: Yeah. We flew in the airport. This is not at the airport. It's five miles away from the airport.

RANDY SCHENKMAN, CHAIRPERSON: Yeah. We had to wait for the shuttle and we're going to have to take the shuttle back. So I mean, if we have it here, can we do it at the airport?

WILLIAM ATHERTON: At the Marriott.
BRENDA ANDREWS: It probably will be better. The reason we didn't do it at the airport this time, just so you know, there's apparently a huge convention going on and all of the hotels just about were booked up. Tampa Airport Marriott was charging 200 and something dollars a room and phenomenally All Good Reporters, LLLC (321) 285-2324 www.AlfGoodReporters.com
higher for the meeting room. So because their rates -- they have a contract with the City. We were not able to use them this time. That may not be the case, apparently, next time. We usually had good luck with them. This is the first time I think we were not able to get them. So if you prefer being at the airport hotel, that's fine.

RANDY SCHENKMAN, CHAIRPERSON: Wherever, whichever.

JAMES FUTCH: Which city?
RANDY SCHENKMAN, CHAIRPERSON: Does anybody have a preference as to the city which is easier for everybody?

MARY HART: I like Tampa.
EFSTRATIOS LAGOUTARIS: It doesn't matter. By the time you deal with I-4, it's a three-hour drive for me anyway. At least here I get to drive through the Ocala National Forest on the way home and enjoy some scenery.

ARMAND COGNETTA: This is closer.
BRENDA ANDREWS: The other thing, here, parking is free. I think it's probably easier parking.

MARY HART: Yeah, that's true.
EFSTRATIOS LAGOUTARIS: Yeah, that's nice.
BRENDA ANDREWS: The access to the bathrooms is
free. I mean, it's the shorter distance. The Airport Marriott you have to kind of find them. So there's some pros and cons, but it's whatever you all decide.

JAMES FUTCH: Quite frankly, I don't know what time -- what time did you leave this morning? RANDY SCHENKMAN, CHAIRPERSON: Eight. JAMES FUTCH: We can avoid the shuttle easily. We have a car and it's right there.

WILLIAM ATHERTON: Actually, it's not a huge -it's just a small --

JAMES FUTCH: You call me on the cell phone. I can ride and pick you up; you're here.

WILLIAM ATHERTON: If it's a problem, then no. If it's going to save you about \$200.

BRENDA ANDREWS: Well, the two hundred was just for this time because of the convention going on. The rate here was really a good rate, so -WILLIAM ATHERTON: Very minor consideration. RANDY SCHENKMAN, CHAIRPERSON: Okay. So we'll plan on the 20th and we'll plan on Tampa. BRENDA ANDREWS: Tampa. RANDY SCHENKMAN, CHAIRPERSON: Okay. BRENDA ANDREWS: The first choice is the airport and second choice is this place?

RANDY SCHENKMAN, CHAIRPERSON: Well, how about for everybody else? Is this easier for everybody else? Because otherwise, it's just the two of us.

PATRICIA DYCUS: I think it's easier.
MARY HART: The food is good and I've eaten at that airport. It's terrible.

WILLIAM ATHERTON: We'll talk about it.
BRENDA ANDREWS: You can get picked up.
MARY HART: You pay for parking at the airport.
RANDY SCHENKMAN, CHAIRPERSON: Okay. So it's the 20th and it will be here. Good for everybody?

MARY HART: Sounds good.
RANDY SCHENKMAN, CHAIRPERSON: Okay. So is there anything else that anybody wants to discuss? Otherwise, we will adjourn.
(No Response)
RANDY SCHENKMAN, CHAIRPERSON: Okay.
EFSTRATIOS LAGOUTARIS: Congratulations on your retainment.
(Proceedings concluded at 3:03 p.m.)
CERTIFICATE OF REPORTER
STATE OF FLORIDA:
COUNTY OF ORANGE:
I, RITA G. MEYER, RDR, CRR, CBC, CCP, do hereby
certify that I was authorized to and did stenographically
report the foregoing proceedings and that the foregoing
transcript is a true and correct record of my
stenographic notes.
I FURTHER CERTIFY that I am not a relative,
employee, attorney or counsel of any of the parties, nor
am I a relative or employee of any of the parties,
attorneys or counsel connected with the action, nor am I
financially interested in the outcome of the action.
DATED on this loth day of June 2016 .


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