UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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OAS MEETING

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Stono Ballroom

Doubletree Hotel

Charleston, North Carolina

Monday, October 2, 2000

P R O C E E D I N G S

[8:30 a.m.]

MR. BAILEY: Good morning, everyone. I'm very happy to have all of you turn out here today. I think those of you who have been here for a few hours realize that this is probably one of the best sites we've ever had for one of these meetings.

Within walking distance, there's plenty to eat and drink and if you don't want to do those two things, then there's historical things to go through [inaudible] where the war and regression started.

[Laughter.]

MR. BAILEY: I learned something, sort of reading about [inaudible] like this. That wasn't the first time South Carolina had defeated the Union. They did it one time previously and they just couldn't get anybody to go along with them. So that's two tries, and that may be what we do a lot of here today.

I would like to recognize that South Carolina put together [inaudible] plenty of time to enjoy the town. I hope you take the time to do that.

We've also made some changes in the agenda. You'll

notice we're not having the business meeting right at 5:00 at night. It's usually starting at 6:00, until everybody [inaudible.] We're going to have it in the morning and we [inaudible] to get it over with.

We're going to the top of the agenda, moving right along. We're going to go straight to Chip Cameron, the facilitator, and if you're talking too long, that's my problem. And we do control these mics down here. [Inaudible.] So we're going to make this move.

I think we're [inaudible] majority of the work putting the program together [inaudible] all over.

There's one thing, though, I've got to tell you. There is [inaudible.] At the [inaudible,] you're just going to have to back off, because I've seen things here I've never seen before in my life. He brought me into a bachelorette party because [inaudible] I was here and I saw plenty there [inaudible.] And you're going to have to get off [inaudible.] [Inaudible.]

Less than a block from here is a sushi and [inaudible] place. So we'll all go down there, if you want.

I'm going to go ahead and sit down and we're going to do this all along. We're going to get up here [inaudible] and

sit down, and I'm going to [inaudible,] who is our host, and I'll say right up front, [inaudible.] Make his life [inaudible.]

Pearce?

MR. O'KELLEY: Good morning. Payback is hell and not only did you give me a hard time, but you stole half my lines I was going to talk about this morning.

But I do want to welcome you all here and hope you all have a very good time. There is a whole lot to do and all within relative short walking distance. [Inaudible] also one of the nice places [inaudible] just a few short miles out of the city.

I want you to know that Charleston is a unique place in the State of South Carolina. [Inaudible] local [inaudible] have a way of describing Charleston, several ways. One of them is being the [inaudible.]

As anybody who has looked at the maps, they know that Charleston is surrounded by two rivers [inaudible] to form the Atlantic Ocean.

And I also want to thank all of you people for having the, I guess, courage or maybe [inaudible] to come to South Carolina during hurricane season. [Inaudible] clean house at

the NRC.

[Laughter.]

MR. O'KELLEY: But I really do appreciate you all coming. And remember, it's not you all, it's "y'all," one syllable, y-apostrophe-a-l-l. That may help you get around and converse with the locals.

If you do have time, really take advantage of the market over here. There's a lot of junk you can buy and there's some nice stuff there, as well. I hope you do enjoy it.

Just a little housekeeping. There are restrooms right outside the door here, if the urge hits you later on.

I want to introduce [inaudible] my staff, who have really helped put this all this together. Audio/visual, we have Andrew Roxburgh. In the back over here on the wall we've got David King. Jim Peterson, who is over our radioactive materials program. [Inaudible] still manning the registration desk.

If you need anything, ask any one of these individuals and they can hopefully get [inaudible.]

Tonight we're going to have a cocktail social, reception down in the courtyard. We're going to treat you guys

to a little South Carolina [inaudible] with a dish called Baltimore Stew. I'll hold off what's in it and let you see. It's not all [inaudible.]

But I really do appreciate it. Y'all enjoy and if you have any questions, please let us know. Thank you.

[Applause.]

MR. BAILEY: I see how this meeting is going, get applauded here.

One of the real benefits of being Chairman of this organization is that I guess [inaudible] several years, as most of you are aware, the places, the name places were put in alphabetical order. That was back when NRC [inaudible.] And as a result, it sort of has to be in proper order.

Greta and I got to sit by each other, as many of you [inaudible,] had the courage, I guess, to do it one more time. I'm not sure that it's totally [inaudible] if she'd like to sit by me while she was up here.

But anyway, I think most of you know Greta. For many years, was head of the Arkansas [inaudible] state program, and she took a job and went to [inaudible]. But you know what? I was talking to her last night when we were out having a little dinner and unlike some people who have left the state and gone

to the Federal Government, Greta can still spell state.

I think we are very fortunate to have someone like Greta as an NRC Commissioner. And without further ado, I would like to introduce Greta Dicus.

[Applause.]

COMMISSIONER DICUS: Now, you'll see how organized I am that I can [inaudible.] Can everyone hear me okay?

Thank you very much. He's only told half the story. See, I had to sit next to California and then on the other side of me was Alabama, when Aubrey was Alabama, and talk about fighting over the microphone. It was difficult to just get a word in, but we did manage somehow to [inaudible.] [Inaudible] sit next to Ed again. I appreciate that.

Well, good morning, everyone, and welcome to this, the 32nd annual meeting of the Organization of Agreement States. Can you believe 32 years? Really a remarkable record. And this is actually the fourth year -- it didn't say fourth, but it is the fourth year that the NRC was not involved in the planning, and I think it's going very, very well and [inaudible] accomplished [inaudible] on that, and I always look forward to these [inaudible] because I see my friends and join my friends and I get to meet [inaudible] and I can take that as

people change, organizations change over time.

And it's wonderful to be here in Charleston, it's beautiful, and we appreciate all that South Carolina has done to make this meeting so successful.

This year, I am very pleased to say I'll be able to stay throughout the entire meeting. Last year, I whizzed in and whizzed out. I had some commitments that I couldn't get out of. But this year, I'll be here spending time with you and [inaudible] and listening to the issues, listening to your concerns and [inaudible] NRC.

And hopefully [inaudible] any of you [inaudible] as I can while I'm here and [inaudible.]

I think another wonderful part of my attendance here is that yet another state has become an agreement state. One state who has a high attendance at these meetings two years in a row, it's a good [inaudible] states, we had Ohio came in last year and [inaudible] and this year we have Oklahoma.

So I'm taking credit for that, all right? That being said, I would like to recognize Oklahoma as the 32nd agreement state and I understand that this agreement became effective September the 29th. So it's brand new, and I'm sure they'll do a good job.

And it covers the responsibilities for licensing, rulemaking, inspection and enforcement, but it will also allow the state to regulate the land disposal [inaudible.]

So having been chairman of the Central Interstate Low Level Radioactive Waste Compact, I'm very pleased to hear that maybe Oklahoma [inaudible.]

[Laughter.]

COMMISSIONER DICUS: That's the 32nd state. [Inaudible] like this other [inaudible] and state regulation of radiation and radioactive materials, and it also helps us focus on the upcoming agenda and the many issues that we have before us in the next few days.

I'm looking at your [inaudible] manual. There's a number of issues which interest all of us. The national materials program, we're going to hear a lot about that this morning.

Relationships with other organizations, like the National Council on Radiation Protection Management and the Health Physics Society, which I'm very pleased that we do have a working relationship with them.

And I'd like to take a moment, a personal moment, Cindy Jones, who is on my staff in my materials program, was

recently elected to the Board of the Health Physics Society and I'm very pleased [inaudible.]

[Applause.]

COMMISSIONER DICUS: That's great. Current rulemaking issues, [inaudible] issues dealing with decommissioning and, of course, the panel on the NRC and OAS working groups, which we have those groups working, I think, very well.

Now, as I've noted in the past, and more frequently of late, there continues to be a very high level of cooperation between the NRC and the agreement states staff in addressing our common regulatory issues. I can't tell you how pleased and proud I am of this continuing relationship and I think it's probably the best it's ever been.

This is part of the spirit of the agreement states program and the relationship areas I've mentioned and making it the best it's ever been.

Although I won't go into all of the issues outlined above, I would ask you to pay particular attention to the National Materials Working Group and the tabletop exercise that is scheduled for later this morning, and I'd like to applaud Kathy Allen and everyone working on that, both for the state

level programs and [inaudible,] for the great job that you are doing.

As you all are aware, the working group was created at the direction of the NRC Commissioners under what we call a staff requirements memorandum.

For those of you who are interested about [inaudible] you can find out more about it on our Commission paper, which is SECY-99-256.

Commissioners cannot give a talk unless we throw in advertising. So anyway, that's where you can read about it.

Part of the more troubling [inaudible] is that agreement states currently regulate 75 percent of the licensees in this country. By the year 2003, we anticipate they're going to regulate 80 percent of the licensees in this country. So, clearly, we are the focus and we're the regulators.

In addition to these startling numbers, the NRC is placing more emphasis on activities that support what we call national infrastructure, specifically, which would include, for example, rulemaking, [inaudible] development, information technology systems, [inaudible] on my case about, technical support, event follow-up, and the integrated materials performance evaluation program, the IMPEP program, which I

think is going rather well.

If you don't think so, you'll have an opportunity to [inaudible] about that.

But unfortunately, there is no clear definition of what a national materials program should look like or how it should work. That's what we're trying to do now.

That is why this working group was created and why it's very important to discuss and describe what you would like the national program to look like.

Although it consists of your fellow colleagues from the Organization of Agreement States and the TLC CRCPD, as well as staff in NRC, [inaudible] later this morning to see not only if the theory of cooperation and development support are valid, but to shape the future of this country's materials program, because you are the people who will be regulating [inaudible] licensees [inaudible.]

Looking back every year, we [inaudible] agreement state over year, but [inaudible.] So it's very important that you make a decision on what this program should look like.

I'm going to enjoy working and watching the interaction.

In closing, I would offer that of the items that are

of significant interest to the states, there are such things as CRCPD, OAS [inaudible] agreement states and [inaudible.]

[Inaudible] recognition of the contributions to be made by the NRC and the OAS joint working relationship. The clearest rule, release of solid material, and I don't want to go there much further, and stakeholder involvement [inaudible] and rulemaking, which many of you have come up and briefed us and were involved with us on these issues.

These are also very important to us, because together we can effectively [inaudible] programs, sharing our experiences, and work together to increase the public's confidence in the national regulatory program.

Establishing and maintaining public confidence is, of course, one of the goals that the NRC has, which I think you have, as well.

I certainly wish you a wonderful discussion. Again, thank you very, very much for your kind invitation for me to be here and for the support you show to the Nuclear Regulatory Commission. We very much appreciate it.

Now, before I turn this back over to Ed, I would like to ask Mike [inaudible] and anyone else from the Oklahoma organization to please come forward.

We'd like to make a presentation to you from the Nuclear Regulatory Commission and it is a start and it says Congratulations to the State of Oklahoma, Department of Environmental Quality, Radiation Management Section, on the occasion of Oklahoma becoming the 32nd Agreement State, and this is from the U.S. Nuclear Regulatory Commission, dated September the 29th, in the year 2000.

[Applause.]

COMMISSIONER DICUS: Now, I'm going to [inaudible] Oklahoma just a little bit, because 20 years ago, I went to work for the State of Arkansas. I can't believe it's been 20 years. And as I always say, I'm where I am today, in large measure, because [inaudible.]

But I went to work for the State of Arkansas 20 years ago and they were talking about we're getting ready to get a new agreement state, it's going to be Oklahoma. Well, you finally made it.

Thank you very much. It's a pleasure to be here, and we'll be here till Wednesday morning, and I'll try to speak to as many of you as I possibly can.

[Applause.]

MR. BAILEY: Having lived in Texas at one point in my

life, I find it real difficult not to tell some Okie jokes, but [inaudible.]

Moving right along, as they say, what I would like to do [inaudible] ask if there are any questions for Greta or comments for Greta. Are you all awake out there? No. Okay.

Well, the next five or so minutes will wake you up. I'll just take a second and say that in Oklahoma, we found the OST staff and the [inaudible] board staff were very cooperative with us in working on this agreement. [Inaudible] very, very helpful and supportive and we appreciate that.

SPEAKER: Thank you.

MR. BAILEY: I will say, Greta, one of the ways you can assure that [inaudible] is this is in all SES performance criteria that [inaudible] a new agreement state each year.

[Laughter.]

COMMISSIONER DICUS: [Inaudible] do that. Get ready.

MR. BAILEY: Okay. Now, let's start [inaudible] likely. I'm going to give a sort of an overview of some of the things that OAS has done and with this particular year and I think it needs a little background.

One of the things that we did early in the year was have a planning meeting and having moved to California a few

years ago and being thrown into all of this [inaudible,] at the beginning, it was management by teaching [inaudible.] Anyway, I've been in more training than I could possibly [inaudible.]

But one of the things that has come out to me that's important is some sort of planning meeting. We leave this meeting and we sort of go into limbo, or we have, in the past, gone into limbo for about six months.

We got together. We roughed it to lake Tahoe, had to go through the snow to get there, about two feet of snow. We couldn't get a meeting room. We had the meeting in Kathy Allen's bedroom. [Inaudible] talking to her husband.

But I want to thank, and if I don't do it [inaudible,] thank NRC for their continued support of OAS activities throughout this year. In each of these activities, NRC has been very supportive, if not with [inaudible,] at least with attendance and participation.

We have a joint OAS/NRC conference call, roughly, every month and many of you dial up and listen in on it. In fact, it got to the point where one of them, I couldn't get it on the bridge because there were 37 of you on there.

But anyway, we didn't start off the year too well, because the one in January had to be cancelled because there

was only -- I think Paul was the only staffer at NRC that made it to work that day, and so we finally cancelled that call. So we have these calls almost every month.

One of the great steps forward, as far as I was concerned, was that [inaudible] took it upon themselves to type up notes of -- create notes from each of these conference calls. [Inaudible] worked together to put out notes and they will consist of [inaudible] notes. They are not minutes and you're talking on the telephone and working on the computer and you don't get everything.

I think it's a practice that we will continue to do, because it gives some people a monthly update on what we're doing, what we will be doing and so forth. You don't have to wait for disclosure down.

We have been able to send those out relatively quickly after each meeting and we've gotten quite a bit of feedback from you all on how those notes are received.

The other thing that we've done that -- I don't know where this tradition started, three or four years ago, the OAS briefing to the Commission. This year, they added the computer streaming access so that some of you could actually sort of watch it, in addition to those that were there.

I would say I was really impressed with the briefing this year because all the Commissioners were there for the entire briefing. Some came early and some stayed late. It was a very -- I felt it was very warmly received and the Commissioners took the briefing as something that was [inaudible.]

And the other thing is [inaudible] having our 32nd annual agreement states meeting and I want to correct one thing that Greta said. There was NRC involvement in getting the program together and if we hadn't had NRC, we would have a very slim program and we could have had more time off.

[Laughter.]

MR. BAILEY: Okay. Next slide. One of the things that has really blossomed over the past few years is the discussion of agreement state personnel with the NRC working groups and steering committee, and at this particular meeting, we will hear from the state people and the NRC people that are actually on those working groups, and won't be somebody standing up here summarizing what some third party did. It will be actually the people that were there.

As has been mentioned, we will have a workshop tabletop on the national materials program. That is just to

mention the insights [inaudible.]

The next bullet is the agreement state participation in the IMPEP team, review team, and, also, the Management and Review Board meeting. [Inaudible] a few years ago [inaudible] a very worthwhile endeavor.

My only complaint about [inaudible] at this point is the [inaudible] is that they don't come visit us often enough and that sounds funny, but I would really like [inaudible] 18 years instead of four.

Another key point that primarily Kathy Allen and [inaudible.] Kathy is going to be the chairman, she is the chairman-elect or chair-elect, for the establishment of RADRAP and I think I've heard from most of you on RADRAP. It's something that was [inaudible] at virtually no cost, a lot of effort.

Kathy and Jim Myers initially were involved in this and I think it's working quite well. It's getting a lot of participation. We're getting questions, we're getting solutions to regulatory questions, and I think it's been a good sharing effort for all of us.

And this slide, I put the slide in and then I got the letter from the Commissioners saying, hey, you dummy, you

[inaudible.] During the information briefing, there was a request to define radioactive material and how do states define it and, as all of you here are aware, sent out an e-mail and it was rather late, but within 24 hours, we had a majority of the states respond.

And unlike most surveys, we got 100 percent participation [inaudible.] That's one of the [inaudible] you can do it, you don't have to worry about somebody, you don't have to prove [inaudible.]

Future activities. We've talked quite a bit this year on the board about establishing a virtual office. What we mean by that is that OAS is sort of [inaudible] organization. We have no bylaws, we have no dues, we have no office.

So if a Congressional committee wants to find out what a state thinks about something NRC is doing or is thinking about doing, they really don't quite know how to get in touch with us, unless they go to the NRC and ask the NRC.

We have been discussing the establishment of a commercial office, which would allow Congress staffers and so forth to have a place that they could go and write to whoever happens to be chair in that bureau [inaudible] to a program director in each state. So that, I'm hoping, will still come

about.

The second bullet there, which I'm sure we'll discuss some in the business meeting, is the incorporation of OAS. The only problem with [inaudible] was that we had some money left over from last year's meeting and now these [inaudible] don't like to take money from people unless you've got some sort of number associated with it and in order to get a tax ID and so forth, you've got to have a whole bunch of stuff.

So we're looking at whether incorporation would allow us to do that, so that we could carry a small amount of money in the [inaudible,] forward it from year to year, and outside the Commissioners' hearing, we'd also like to be able, in the future, if we're incorporated, to get some sort of small grant to fund some of our activities [inaudible.]

I think another [inaudible] involved in is providing greater input to Congressional committees. When I was in Texas, as an attorney, I often described how [inaudible.] And I'm afraid that Congress maybe even larger and every once in a while, [inaudible] local people put some input into these [inaudible.]

The next bullet is the establishment of a closer relationship with [inaudible] and HPS. You'll notice on the

agenda [inaudible] to talk to us about the NRCP committees, the approach [inaudible] NCRP meeting this year, and if there is some way that they could get some input from the state as to what reports the NCRP needs to be working on. Mike will be here later.

ADPS, for the past three years, I think, we've had the president-elect or president or now the past president of ADPS [inaudible.] Greta mentioned that Cindy is on the board and when I look out there, we've got three board members, executive board members [inaudible] sitting in the audience [inaudible.]

How did I miss you? I'm sorry. You're talking about Cindy and her [inaudible.]

[Laughter.]

MR. BAILEY: Okay. Next is the providing increased support for NRC in establishment of a national materials program. Mentioned the [inaudible] we've done with participation on the committee and I think it's very important that states do continue to work with the NRC on this program, because it's going to be what you're going to have to live with.

Here's a personal note. It's been a busy year.

Hopefully, it's been a productive and beneficial year. One of the things I would note is that if you have any doubt, in your mind, electronic mail has become the communication media of preference.

Friday morning, I went into my computer and I said I'm just going to look in the folder that says overhead and [inaudible.] This year, there were 1,541 messages in the OAS folder and that doesn't include when I sent out an e-mail to all of you. That just counted as one.

A lot of stringers, if they came in close enough together, I erased the old one, but I think that shows that there's a lot of communications going on. I don't know whether it's all transfer of information.

The other thing is RADRAP, which is fairly new. [Inaudible] 126 in the folder. So the electronic media is the way we're going to be communicating on these things in the future and I hope that all of you are taking advantage of it.

Right now, I'm working on e-mail [inaudible] phone call. [Inaudible] all of my tasks come down pretty much by e-mail. So I would encourage all of you to do that.

I'm going to stop now and we're only running about five minutes behind and we only have one more speaker to get in

before that five minutes [inaudible.] It's Chip, who is going to tell us the ground rules of sort of how the meeting is going to go.

We, as always, and I hate to do this, encourage people to ask questions and make comments and to participate. Some of you need no encouragement.

If anybody's got a question or a comment, I'll try to take it. Here we go.

MR. LOHAUS: Excuse me. Paul Lohaus, NRC. I wanted to use this opportunity. Ed touched on a number of accomplishments and really I think these accomplishments not only go over the past year, but over the past four years with the establishment of the Organization of Agreement States.

And I wanted to know, it's really a credit to the organization, it's a credit to each of you and your staff, have stepped forward, have volunteered, and that have really helped focus on bringing some of our common problems to resolution.

And I want to let you know that the executive team, Ed, Kathy, Stan, Alice and Richard, they've just done a super job over the past year in representing you. A lot of hard work that they've put in. I think just looking at the number of e-mail exchanges, the number of phone calls, the use of RADRAP,

there's a lot of hard work that they've put in that has really made this what it is.

They deserve the recognition on that. Thank you.

MR. BAILEY: Chip?

MR. CAMERON: Good morning, everyone. My name is Chip Cameron. I'm the Special Counsel for the Public Liaison at the Commission. It's a real sincere pleasure to be back with you to help out in this facilitation again at this year's meeting.

I think that we all know that almost anything could happen at a meeting that's hosted by Pearce and chaired by Ed Bailey. I don't know how that happened. I think it's all part of the new millennium.

But I'm assuming that things that are going to be relatively normal and that --

SPEAKER: It's called affirmative action.

MR. CAMERON: And that my role as a facilitator will be to assist you in a number of ways. One is to keep the discussion relevant to whatever is on the agenda at the time, and we do have a parking lot for Greta and others, but we'll keep track of issues that come up that we might want to discuss later on in the program.

Secondly, I would like to try to help us keep on schedule so that we can cover all of the many topics that we have on the agenda. Thirdly, to make sure that we have as much time for discussion as possible and we have already asked the speakers to try to be as concise and economical as they can be, so that we can leave a lot of room for comments and discussion from you.

And I'm also going to keep track of action items, certain things that the NRC may be tasked with or certain things that the OAS or others may be tasked with, so we have a record of that.

Kirk always tells me that he's going to get me a big hook for speakers that go on too long and people said we're going to cut the mic off. But we really will make an effort to try to keep the speakers moving on in time.

In terms of ground rules, I think the easiest way to do this is if you have a comment or a question that you want to make, just turn your name tent up and we'll keep track of it that way and you won't have to keep raising your hand.

We are keeping a transcript of the meeting and that means that we're going to have to try to use the mics as much as we can. I think that they're sensitive enough that they're

picking up. You don't have to have it right in front of you, but if you could try to get it sort of close to you and speak into the mic, that would be helpful for the transcript.

Also, I don't think our stenographer is going to be able to keep track of where everybody is. So even though it's a little bit of a nuisance, if you could just say your name and your state when you make your comment or ask your question, and then we'll have that on the record.

This is the first time I've heard the story that poor Greta was stuck between Aubrey and Ed. I can't imagine being in that situation.

COMMISSIONER DICUS: It was an interesting time.

MR. CAMERON: At any rate, before we -- I think it would be good to do a quick introduction of everybody around the table, but I want to make sure that we all -- I think that we've had a little bit of a change and, Ed and Kathy, please correct me if this isn't right, but what we're going to do, we're going to do introductions and then Pearce wants to make an announcement.

We're going to go to a break, which was scheduled originally for ten, but then originally, again, for 9:30, but I think we'll be able to break earlier than that.

We're going to take a half-hour break. Then we're going to come back and we're going to go to the national materials program overview, Carl Paperiello, Kathy Allen and Jim Myers, and we'll have some question-answer right after those three, and then we're going to have Bob Walker talk, give us an introduction to the tabletop exercise that's going to occur later on.

The goal is to, by 11:00, at the latest, get to the presentations from Ray Johnson from the Health Physics Society and Mike Ryan from NCRP and then we'll break for lunch, and that's the way I understand it now.

Half-hour break and then we're going to come back and do basically an hour of national materials program and then an hour of Ray Johnson, Health Physics Society, and Mike Ryan, NCRP.

Okay. Well, why don't we start with introductions, going from my left, go to Paul Lohaus. This will also allow us to check out the microphones, too, to see how well they pick up.

MR. LOHAUS: Paul Lohaus, Office of State and Tribal Programs with NRC.

MR. RATLIFF: Richard Ratliff, Texas Department of

Health, Bureau of Radiation Control.

MS. ROGERS: Alice Rogers, Texas National Resource Conservation Commission.

MR. MARSHALL: Stan Marshall, Nevada State Health Commission.

MR. BRODERICK: Mike Broderick, Oklahoma Department of Environmental Quality.

MR. PASSETTI: Bill Passetti, Florida Bureau of Radiation Control.

MR. GAVITT: Steve Gavitt, New York State Department of Health.

MR. SNELLING: Dave Snelling, Arkansas Department of Health.

MR. COOPER: Vick Cooper, Kansas Bureau of Radiation Control.

MR. GOFF: Bob Goff, Mississippi State Department of Health.

MR. MANNING: Abe Manning, [inaudible] State Division of Radiological Health.

MR. JACOBI: Jake Jacobi, Colorado Department of Health.

MS. HADEN: Robin Haden, North Carolina Division of

Radiation Protection.

MR. GODWIN: Aubrey Godwin, Arizona Radiation Regulatory Agency.

MR. DUNDULIS: Bill Dundulis, Radiation Control Program, Rhode Island Department of Health.

MR. FLETCHER: Roland Fletcher, Maryland Department of Environment, Radiological Health Program.

MR. HILL: Tom Hill, Georgia Department of Natural Resources, Radioactive Materials Program.

MR. LOHR: I'm Ed Lohr, Kentucky Radiation Health Branch.

MR. SCHMIDT: Paul Schmidt, Wisconsin Section of Radiation Protection, Department of Health and Family Services.

MR. FITCH: Stan Fitch, New Mexico Department of Environment, Radiation Protection Program.

MR. VINCE: Michael Vince, Louisiana Department of Environmental Quality.

MR. SUPPES: Roger Suppes, Ohio Department of Health, Bureau of Radiation Protection.

MR. SINCLAIR: Bill Sinclair, Utah Department of Environmental Quality.

MR. LEOPOLD: My name is Bob Leopold. I'm from

Nebraska Department of Health and Human Services.

MR. ERICKSON: My name is John Erickson, State of Washington Department of Health.

MS. TEFFT: Diane Tefft, New Hampshire Bureau of Radiological Health, Department of Health and Human Services.

MR. EASTVOLD: Paul Eastvold, Illinois Department of Nuclear Safety.

MR. PARIS: Ray Paris, Oregon Health Commission.

MR. SEELEY: Shawn Seeley, Maine Radiological Health Program.

MR. WHATLEY: Kirk Whatley, Alabama Department of Health. [Inaudible.] I'm stuck between Massachusetts and Maine and I can't understand either one.

[Laughter and applause.]

MR. WALKER: Bob Walker, Radiation Control Program, Massachusetts Department of Public Health.

SPEAKER: Well, that's one reason we kind of mixed it up, so we could let you guys experience a little different culture.

MR. O'KELLEY: I'm Pearce O'Kelley, South Carolina Department of Health and Environmental Control.

COMMISSIONER DICUS: Greta Dicus, Arkansas.

[Applause.]

MR. BAILEY: And I'm Ed Bailey, from the great State of California.

MR. CAMERON: All right. Thank you. I think since we do have a lot of people that you might want to know out here, we'll do a real quick [inaudible] and when we come back up to the table, I don't think you need to have that mic directly in front of you and I'll try to help them out by taking the cordless mic around.

So if you could just state your name and tell us who you are.

MS. JONES: Cindy Jones, NRC.

MR. RYAN: Mike Ryan, from the NCRP.

MR. PAPERIELLO: I'm Carl Paperiello, NRC.

MR. GREEVES: John Greeves, NRC.

MR. HOUSE: Bill House, Chem-Nuclear Regulatory Affairs.

MR. WINGARD: Rodney Wingard, State of South Carolina.

MR. PORTER: Henry Porter, South Carolina.

MR. LITTON: John Litton, also with South Carolina.

MR. MOODY: Bob Moody, with NRC.

MS. MIOTLA: Sherri Miotla, NRC.

MS. BISHOP: Pam Bishop, Oklahoma.

MR. COX: Charlie Cox, NRC.

MR. GALLAGHAR: Bob Gallaghar, Massachusetts.

MR. DAKUBU: Salifu Dakubu, Massachusetts.

MS. HOWELL: Linda Howell, NRC.

MR. THOMPSON: Jared Thompson, Arkansas.

MS. POOLE: Brooke Poole, NRC.

MS. DETILLIER: Kimberly Detillier, Louisiana.

MR. WALKER: Bob Walker, Massachusetts.

MR. McCANDLESS: Gary McCandless, Illinois.

MR. TATE: Arthur Tate, Texas Department of Health.

MR. SOLLENBERGER: Dennis Sollenberger, NRC.

MS. ABBOTT: Carol Abbott, NRC.

MR. COMBS: Fred Combs, NRC.

MS. MAUPIN: Cardelia Maupin, NRC.

MR. CAMPER: Larry Camper, NRC.

MS. HOLAHAN: Trish Holahan, NRC.

MS. CAMPBELL: Vivian Campbell, NRC.

MS. McLEAN: Linda McLean, NRC.

MR. O'BRIEN: Tom O'Brien, NRC.

MR. MYERS: I'm Jim Myers. I'm with State and Tribal

Programs.

[Laughter.]

MS. YOUNGBERG: Barb Youngberg, New York State.

MR. MANLEY: Ray Manley, Maryland.

MR. JACOBSON: Alan Jacobson, State of Maryland.

MR. HSUEH: Kevin Hsueh, NRC.

MR. CALEB: Paul Caleb, Wisconsin.

MR. KLINGER: Joe Klinger, State of Illinois.

MR. COLLINS: Doug Collins, NRC.

MR. WOODRUFF: Richard Woodruff, NRC.

MR. BOLLING: Lloyd Bolling, NRC.

MR. WALTER: David Walter, Alabama.

MR. EMORY: Bob Emory, University of Texas, Houston Health Center, not the NRC.

MR. LYNCH: Jim Lynch, NRC.

MR. OWEN: Bob Owen, Ohio Department of Health.

MS. PEDERSON: Cindy Pederson, NRC Region III.

MR. COOL: Donald Cool, NRC.

MR. COLLINS: Steve Collins, Illinois.

MR. STEPHENS: Mike Stephens, Florida.

MS. McBURNEY: Ruth McBurney, Texas Department of Health.

MR. JOHNSON: Ray Johnson, Health Physics Society.

MR. KIRK: Bill Kirk, Pennsylvania Bureau of Radiation Protection.

MS. ROGERS: Cheryl Rogers, Nebraska Health and Human Services.

MR. FRAZEE: Terry Frazee, Washington Department of Health.

MR. HACKNEY: Charles Hackney, NRC Region 4.

COMMISSIONER DICUS: I have to tell you, Chip, I think I'm going to look at my [inaudible.]

[Laughter.]

MR. CAMERON: I put that up there as an action item.

SPEAKER: Greta, that's the reason we don't think you ought to vote.

MR. CAMERON: I was just going to say that we do have a lot of people here from the National Materials Working Group and I think that Kathy will probably introduce them later.

And you've already been introduced, but why don't you introduce yourself?

MR. PETERSON: Jim Peterson, South Carolina.

MR. CAMERON: Okay. Thank you. Pearce, do you want to something before we break?

MR. O'KELLEY: Yes. I was very rude earlier and forgot to introduce the people that are also involved with the South Carolina program of regulating radioactive materials. If they would please stand, Rodney Wingard, Henry Porter, and John Litton, from our radioactive waste program.

I know Dr. Ryan said he was from the NCRP, but he is also the Chairman of our Technical Advisory Council and we really appreciate all the work he's done, helping us out.

I also wanted to clear up a possible misunderstanding. I noticed that when people were coming up the stairs, Jim Lynch was saying "welcome to Charleston." And contrary to popular belief, he is not from the State of South Carolina.

[Laughter.]

MR. O'KELLEY: But y'all have a good time at the break.

MR. CAMERON: All right. Thank you, Pearce, and thank all of you. Let's take a half-hour break and come back at 10 to 10:00 and we're get started with national materials program.

[Recess.]

MR. CAMERON: Besides the speech by Commissioner

Greta Dicus this morning, our first substantive topic is going to be the national materials program that Greta had mentioned her talk.

We're going to have a series of presentations, starting with Dr. Carl Paperiello, from the NRC, and I think most of you know Carl. He's the Deputy Executive Director for Materials Research and State Programs at the NRC, and he is going to give us an idea of the genesis of the national materials program.

Then Kathy Allen and Jim Myers, Kathy Allen from Illinois, Jim Myers from the NRC, are going to tell us what the status of the national materials program is. They are both on the National Materials Working Group.

Then we'll have a little discussion period before we go to Bob Walker from the State of Massachusetts, who is also on the National Materials Working Group, to tell us -- to set up the tabletop exercise for us.

We have about an hour to do this and it seems like this is one of the most important issues on the NRC/Agreement State agenda these days. So I think we can begin to do it justice in that time period.

And I'm just going to turn it over to Carl at this

point. Carl, you may want to use the Lavaliere, or you can use this.

MR. PAPERIELLO: Okay. Can people hear me? I have some handouts here which I want to supply, but I don't think I have enough for everybody. I think I have the table covered, but beyond that, I don't. I think I have about 50-55 copies with me.

What I want to talk about, I'm going to sum it up. I'm going to sum it up as what we're trying to do is consciously think about what the materials program is going to be, when essentially all the states are agreement states. We're asymptotically approaching that point and we have a national materials program.

The thing is nobody has ever written it down on paper. We've evolved into it. That summarizes that I have to say today.

Next slide. I think we ought to start this by looking at what Section 274 of the Atomic Energy Act says. It gives the purpose of this. It states six purposes and if you summarize them, you can summarize them as cooperation and coordination on national radiation protection standards.

Section 274 of the Atomic Energy Act also established

the Federal Radiation Council, something I didn't realize until I was preparing this presentation, which, of course, has been subsumed in into the EPA. But there is a big focus of 274 in establishing a program based on cooperation and coordination for national radiation protection standards that provides for the states to assume regulatory control over listed material and it states, at the end of the purpose, as the states get more experience and greater capabilities, there may be need for -- it may be desirable for additional legislation.

So there's a concept that the states are going to learn how to regulate those materials and whenever that happens, we may do something else.

I'm proposing we're at the point in time to do something else. I don't know what that something else. I've been trying to paint a picture.

Next slide. Other provisions provide for how a state becomes an agreement state. It talks, again, about cooperation on radiation standards. In fact, I want to read this, it's so important. "The Commission is authorized and directed to cooperate with the states in the formulation of standards for protection against hazards of radiation, to assure that states and Commission programs for protection against hazards of

radiation will be coordinated and compatible."

So there is a major focus in the legislation and it provides for the Commission to periodically review the agreement with each state for compatibility and adequacy.

Next slide. What is the program? I think, and this is my definition, the components of the program range from its technical basis, why do we need to protect people from radiation, through legislation, regulation, permitting.

I don't want to get hung up on words, because if we register a gauge, is that really licensing. My position is it's so close that I don't really want to -- the lawyers will put words, but as a scientist, I'm not going to put them.

I know who has the material. It's not anybody can do whatever they want to do. Inspection, confirming that people follow the rules, enforcement, whatever that may be, redemption, and feedback.

After you've done all this stuff, what is your operational and scientific experience that says everything is okay and if it isn't okay, you start at the top and it's sort of a loop.

Next slide. We have defined the program, but the program can't run in a vacuum. The program, words on paper,

will not work unless you have people and the people have the right tools.

So infrastructure support is incredibly important. Now, we are undergoing or have undergone a second revolution or change in addition to what we consciously proposed to think about in a national materials program, and that is the United States Government preeminence in uses and knowledge about the use of radioactive material is gone.

I would support, and I don't have all the technical data to support this, that in 1959, when we wrote the law, most of the knowledge about radioactive material and how to handle it and the like resided in the United States Government, through the Atomic Energy Commission's own facility.

Today, I would assert that is not true. In a paper I gave the Commission in 1993 on the medical program, I pointed out that since 1975 up to that date, there has been a major change in medicine. You have a large infrastructure in the medical community that knows one hell of a lot about radioactive material and radiation that did not exist in 1975.

We had certification programs for medical physicists. We had American colleges of various types of nuclear medicine. So we had a large infrastructure which did not exist in an

earlier era. And, in fact, if you look at the old AEC records, you actually find the AEC scientists doing dose calculations for diagnostic nuclear procedures and they license somebody to practice even imaging before doing the dose calculation.

We don't do that now. This is a package insert. I mean, so we have two things going on here. We're trying to change what we do and think about where we're going, but the industry that we regulate has become sufficiently mature that the need for us to do things that we used to do has changed, plus the fact that we have legislation that says we ought to be using consensus standards.

But we also have people out there who know how to do it. So this infrastructure support is incredibly important. It's a major thing that the NRC up to now has done. It's an issue that the NRC itself is changing for its own purposes, and so we have two changes going on at the same time.

Next slide. Where are we? From now on in, everything I'm going to say you've already heard this morning. I hate to say this, but I can fully endorse what Ed Bailey said this morning.

The fact is that we have a program. We have most licensees are in agreement states, somebody said that this

morning. Most programs are wholly supported or at least partially supported by fees. The IMPEP works, and I would say in the last several years, certainly in the '90s, the cooperation and coordination that the law, the Atomic Energy Act, envisioned is certainly far better than it has been in the past, in my experience.

So now where we are going? The punch line. Where are we going in the national program? I don't know. I want to just outline what needs to be done.

One, it has to be taken from the approach that all or almost all states will be agreement states. We are asymptotically approaching that condition.

What is the NRC required to do? What does the law require us to do, no matter how many agreement states there are? What is desirable for the NRC to do? Which means I'm giving you my selfish viewpoint, but what should the agreement states be doing? What should the various consensus standards bodies, the professional organizations do? What's this program going to look like? What is it going to cost? Who is going to pay for it? And recognize that the NRC will not, even if it had no agreement states, will has a major role to play in radiation protection because we do still have the reactors and

the fuel facilities for reactors, for high level waste programs and the like, and that will require us to do a number of things.

We would have to maintain a Part 20. What legislation might be needed? Did the law envision perhaps legislation? We all recognize that at the time Congress wrote the law 40 years ago, a lot of things have happened that they may not even have envisioned.

I guess I'm going to wrap it up on this. I think it's very important for states to recognize, I think they do, but do something with it, the fact that they regulate and are responsible for far more radiation sources than the Federal Government.

Besides materials, you have your X-rays, you have high energy X-rays, accelerators, whether they're used for medical purposes, whether they're used for industrial, whether they're used for research. You have NARM. So you have far more sources of radiation than the Federal Government has and it is my belief that you need to assert what Congress gave you as your authority over these things vis-à-vis the Federal Government.

And you say, well, you're from the Feds, why are you

doing this. I think, from what I have met among the state regulators, too many of the Federal regulators are fairly myopic. We regulate a small portion and you regulate a larger portion and you see far more things than we do, and I think you have a more balanced view than we may have.

Not to say we're not trying, but I think that's what the case may be.

So I have not given you an answer. I'm not giving you -- telling you how or what the national materials program ought to look like, although Ed Bailey made some remarks that I like a lot, I think, in terms of where OAS is going.

So I'm looking forward to the working group steering committee to bring out a program. But the thing is where are we going and consciously thinking about explicitly what we're going to do, what the components are going to look like, and how they're all going to fit together.

Thank you.

[Applause.]

MR. CAMERON: Thank you, Carl. We're going to have Kathy and Jim talk and then open it up to all of you for questions to Carl, Kathy and Jim, and comment.

Jim, are you going to go first?

MR. MYERS: I'm here.

MR. CAMERON: All right.

MR. MYERS: All right. It's my pleasure to come and talk to you just very quickly and I'm going to cover a lot of this stuff, just touch on it, and then we're going to -- so we can have more time to go into some detail on things you think would be a little bit more important to you.

An apology. The dog ate our homework. We have some handouts. Unfortunately, somehow they got messed up, a lot of them, in the copying. So Jim is going to run out to a copy center and we'll get some more and we'll have them out by later this afternoon.

First of all, let's talk about how this working group came about. Not quite a year ago, the Commission issued a SECY paper, which is kind of a direction to the staff, and it says to form a working group and basically to look into this issue of a national materials program.

The national materials program, and this is the caveat in this, does not have a definition. We have not defined it, but yet it seems to take on a definition the more you talk about it.

So what we're talking about here is national

materials program, all small letters.

The focus in the Commission paper was to look at, have the working group look at functional and not necessarily organizational changes, but it's not limited to just functional change. It says that if there's organizational changes at the Commission that we were suggesting.

It's also not limited to Atomic Energy material, that we should also look at all of the things that all the states do out there in regulating all of those radiation hazards.

Additionally, there was a steering committee added to the working group and we've gotten great advice and counsel from them throughout our process.

MS. ALLEN: Okay. I'm it. I didn't introduce myself earlier. I'm Kathy Allen, from Illinois. Jim and I are co-chairs for the working group, so we're tag-teaming it.

So we're trying to figure out what this national materials program is supposed to look like. Well, rather than starting from the top down, we decided to start from the bottom up, start at ground level. That's how you build a building, that's how you build the structures at the labs.

So we looked at what are the core things that a radiation protection program needs. Start at the bottom and

work your way up. We define the essential elements of a program and we looked at the CRCPD, looked at Los Alamos, and we looked at IMPEP.

We took a look at things like licensing, inspection, guidance development, every which way to develop those types of things. Those are the foundation of how our program will go. We need to do all this stuff in order to have a fully operational program and on a national basis, all these things will be in place, as well.

So we took a look at that. Then we looked at each one of those little building blocks, the licensing program, the inspection program, and said how are we implementing these things now, how can we change them, let's start brainstorming some options.

And it was wide open. Just figure out other ways of doing licensing, other ways of doing the inspections, including things like contracting out with other states or, you know, having specialists that were good at cooler radiators just go around and do all the cooler radiators.

I mean, just open it up and try to figure out the best way to use the research that we have to accomplish those particular tasks.

MR. MYERS: Okay. It's my turn. All right. As Kathy said, we had a screening process and, basically, the options that we developed were screened against the six criteria that you will find in our charter.

It's a rather deliberative process and it took quite a lot of time to get to that point. What happens then is that after we have done the screening, we went back and looked at some what we called common attributes for any program that would be in effect.

And I'm going to kind of read these, it's a little bit tedious, but I think it will make more sense. First, that there be shared goals and a shared direction set; a national program for the regulation of the use of radioactive materials should have a basic level of consistency with regard to regulatory goals and a framework for accomplishing those goals.

This will ensure a consistent level of protection for public health and safety.

Both the NRC and agreement states have strategic plans or missions describing these goals. Both agreement states and the NRC should equitably contribute to identifying common goals and creating the framework for each of them.

There is something in this called a consensus

process. It's decision-making that is reached through a cooperative effort, keeping the mutually agreed upon in sight or in mind, and the consensus also does not mean necessarily that everyone would agree.

But it does provide an opportunity for all the parties to bring issues, ideas and concerns to the table for consideration. More or less that we call horizontal communications.

There is the establishment of priorities. Both NRC and agreement states should jointly, through a consensus process, determine regulatory priorities, and that includes things such as rulemaking, guidance development and other issues that are common to the regulatory program.

There is a recognition of current successes and, frankly, looking at what everyone does, there are a tremendous number of successes that we found and I think there is a high comfort level in keeping that success going and funding to fund those successes.

So those programs and elements that are working successfully should work more successfully with modifications along with alternative things.

In other words, if it's working well now, we would

continue to use it. It may be that we would add more features to the program or more issues to the program as the regulatory process or regulatory agenda-setting develops and we would then continue to play off of those.

There is also a recognition of individual legal and jurisdictional parameters. Despite the need for consistency, which agreement states and the NRC both have legal and jurisdictional obligations that must be met, that these obligations must not be impeded by a national materials program.

There are shared resources. A national materials program would identify and use centers of excellence or expertise. Agreement states and NRC regions have, over time, developed specific and considerable experience and expertise in specific areas; for example, well logging industrial radiography, IBD and others.

These centers of excellence and expertise would be identified and utilized in the future.

These centers of excellence and expertise may change and I think that's part of our process, that we would develop an organization or a structure that would deal with and keep track of those changes feeding them as they occur.

That we would use alternative available resources and what we mean by that is that these resources could include consensus setting organizations or listing the cooperation of professional industrial organizations and the public in setting standards, developing new rules and a lot of other things.

So there has to be kind of a plug-in in the structure for those kinds of things.

Establishment of communications clearinghouse. A centralized clearinghouse of regulatory documents should be established. It would be a centralized source for information on the availability of documents and how they are to be used for the state and Federal Government radiation regulatory programs.

It would consist of probably, at the minimum, rules, guidance, documents, industry and professional standards and it would probably be available over the internet.

We anticipate that this would also reduce duplication of effort. By identifying and using centers of excellence, the use of alternative resources and the establishment of a clearinghouse, we would be able to reduce effort and mainly that this would probably play into is that you could trust that someone else may be developing PEP regulations and working in

the center of excellence.

At some point in time, you may need those PEP regulations and basically you can get a document, so you don't have to spend your time and effort developing them, but you can pick them up from one of the other parties.

I think that in the long run, we will [inaudible] costs and the level of effort overall, because we don't have to pick and choose. You can basically state [inaudible] how you want to do it.

Lastly, there is a shared responsibility, resource commitments, participation by all parties, the commitment of resources, either in staff time or in dollars

Now, where we are right now is that we're in the process of collecting more stakeholder input and from that, we're looking for more input from the standards development organizations, from manufacturers, from the public and from the states.

OAS is here, CRCPD are all represented on our working, so we can continue we've got right now, but really we want to start now doing a lot more initiatives, I think, although we've done quite a few things in the past to inform people about this process.

We are now at a point today, I think, to kind of announce a little bit of a future, if you will, what the structure might look like and now is the time when we become involved in getting some thoughts to us about it.

Lastly -- not lastly, but last on this page -- May 1 of 2001 is when we have to submit this plan to the Commission. So we have quite a few months left to work on it.

MS. ALLEN: Keep going.

MR. MYERS: Now, let's about the structural concepts. We did go through and identified some functional responsibilities that were common to all of the programs and we kind of focused in on something that we called inter-organizational relationships.

If you look at the way we do business today, we characterize that as being consulted. The NRC has kind of a predominant role in this process. It asks for advice and counsel from the states and from the public.

And there are some good attributes to that, but we felt that there might be some things that could be done a little bit better.

One other aspect that we looked at or one other way of doing business was, well, why don't we form an advisory

group or some kind of advisory organization.

After some long discussion about that, we just kind of determined that it would probably be like a lot of the other advisory organizations that the NRC has, in that in their name alone, they are just there to provide advice. The agency does not necessarily have to follow it nor does it reduce the use of resources, nor does it share resources very well. So that was discounted.

One other aspect that we talked about was one we called autonomy. Well, autonomy is the free-for-all. Everybody does their own thing on their own, when and where they want to do it, they can make their own regs. It's just really a free-for-all.

And we felt that that really wasn't in the interest of the national program, because basically, although everyone has maximum flexibility in determining the course of the program, it does not lend itself to some level of consistency.

So lastly, we came up with something that we call the alliance, which was more of the consensus process.

And now it's Kathy's turn.

MS. ALLEN: We actually did some homework and looked up [inaudible] to figure out how to describe what this thing

is, and alliance is defined as a formal agreement establishing an association between groups to achieve a particular end.

We kind of sort obviously have a formal alliance, because we are agreement states, but we wanted something more. Another definition of alliance is a bond, a connection between families, states, parties or individuals in association to further the common interest of members.

That sort of fits what we're looking at. [Inaudible.] I'm sorry. I talk with my hands, I better do this.

So we decided to go with the alliance concept. We bantered around a bunch of words, like [inaudible] and things like that, but we decided an alliance was really better descriptive of what we were trying to do.

Bear with me as I sort of describe what this alliance concept is. I mean, this working group has met many, many, many, many hours and many, many meetings. This thing has taken on a life of its own.

And if I don't get this thing across right, feel free to flag me down or something, because I think this is really kind of important to come up with.

We are looking at structures of relationships. I

mean, we have NRC and the agreement states and CRCPD and those relationships are okay. But as Carl said earlier, it's time for a change. We need to recognize that we have all grown beyond the original organizational interrelational structure that we had before, and that's what this working group is trying to do.

Build on that and make some -- move us forward into a more mature relationship. It's not parent-child anymore, guys.

The states have a lot of ability and we need to step up to the plate.

So what would this alliance look like, the structure of this relationship or what kind of functions would it have?

First, we look at the pros and cons of an alliance. On the total part, if you have an alliance, there is opportunity for input from everybody. So you all get together and decide what together are the priorities, what are our priorities for writing regulations, what are our priorities for guidance development.

All kinds of things are important to us individually, and then come up with a collective consensus that we actually start working on together.

That meets the spirit of a true partnership, of

course, consistency. [Inaudible] savings and five different states are all independently working on iridium for in vitro or inter-vascular brachytherapy. Independently, they're doing a fine job, but collectively, they could probably knock this thing out a lot faster and cover all the bases more effectively.

So you need to find a better way to share our resources, recognize areas of expertise, get them to work on something and knock something out.

This requires more participation among the states. It diffuses the decision-making. It's not just a single entity making a decision, but more of a collective joint effort.

There are some problems with an alliance. It may be time or resource intensive. Kind of knock this out of -- have a little safety of, well, I'm just going to do what my state needs and I don't really need to know what everybody else needs.

I mean, part of this is that everybody participates. There are going to be changes needed on both sides, the states and the NRC, as well, looking at everybody working together.

This alliance concept has a structure to it, if you will. There is this administrative component. It provides a

clearinghouse for information. There is a guidance that's been developed for information, resources, those types of things.

So there is an administrative component that sort of coordinates all that stuff. They track and report the progress of different issues that the alliance has discussed and they plan and facilitate meetings of this alliance.

That's just what the core looks like, but the rest of it would have all the states getting together, like in a meeting like this, and that's part of what our tabletop is going to do, seeing if we can all get together and come up with a consensus on a few issues and the same [inaudible.]

I sort of get the feeling I haven't really made this really clear, so I'm going to borrow from one of our meeting fragments.

This is the alliance, okay? It's NRC and all the states together. That's the alliance. There's a core part of it. That's the administrative core. The administrative core is not a decision-making core. It's just to help facilitate the meeting of all representatives of this alliance. They're the ones that sort of get the meetings together and get information out.

But we don't envision an administrative core

dictating the alliance or the alliance coming up with its decisions jointly. But then you see this type of [inaudible] evidence. The [inaudible] evidence are individual organizations having input to the alliance. Licensees, other Federal agencies, the public, professional organizations.

They will also have a role in this, as well. Right now, if somebody wants to do something, they have to approach NRC and now 32 different agreement states, or maybe they can toss something out to the OAS or maybe toss something out at a CRCPD meeting.

So it's a more formalized kind of alliance. If someone has an issue or wants to present some information, that's a good way to do it.

The alliance will develop consensus on regulatory issues, identify and update centers of experience or other expertise. I mean, think about what you have in your states now. How many of you have somebody who is really, really good in norms? How many of you have somebody that's really, really good in low level waste type issues, ground water protection, radon, accelerators, medical, industrial uses, well monitoring?

If you think through it, some of you have people who are very, very good in a particular area. Jointly, you put

those experts together and if they ere come up with a guide or changes to regulations, and if you recognize those experts, there would be more buy-in on what kinds of things they would produce.

Identify alternative resources for specific tasks. Does NRC need to go to a separate state to inspect a VA hospital? Maybe not. Maybe they can use the resources in a state to get at some sort of way to make [inaudible.]

We know state people know what they're doing when they do inspections, why not use those resources? Recognize the current successes, what's been going well, what kinds of interactions already work. Define and make abundance and evaluate the progress [inaudible.] This is the conflict [inaudible.]

So if you look at each program and what you have to offer, all [inaudible.] This [inaudible] your program, the licensing and inspection, training of your staff, responding to events, other programs [inaudible.]

This center is almost dependent on the size of the licensee. If you are a very large state, you have a lot more inspectors, license reviewers. If you're a small state, you may find that your respective [inaudible] for your license

renewal, you have maybe a smaller group of people.

And there's a [inaudible] around the outside, some sort of vary in size and shape. You may develop guidance. You may [inaudible] other people [inaudible.] You may just reference NRC or you may reference [inaudible] another state and white-out the name and stick your state in there.

You may [inaudible] for regulations or you may have a staff of people devoted to developing regs. So that's [inaudible] big or small, depending on the needs of your program. Accreditation, you may do environmental analysis. You may contract that stuff out. You may have a full-blown lab. You may contract for [inaudible] support.

Everybody has a different size and shaped program. And I do see there's different [inaudible] size and shape [inaudible] and different program [inaudible.] Isn't this beautiful? But the idea is if you're a program that has like a big center portion and not enough resources for all the little petals around, the alliance can step in.

You go to where there are other areas of help to support and alternate your program, especially like on a national basis.

Chip is giving me the evil eye.

MR. CAMERON: Not when there are flowers up there.

MS. ALLEN: Can we have the lights up for a second? This is -- it's been very difficult to get [inaudible.] We had this vision and we had this hope and part of it has a lot to do -- I mean, most of it deals with whether or not we're going to [inaudible.] Recognize that we have abilities amongst ourselves in the states and recognize that NRC doesn't [inaudible] as well.

But together I think we can create a better way of working together. This working group consists of -- well, originally, during [inaudible] which made it [inaudible,] which is sort of like -- I don't know -- [inaudible.]

And I'd to [inaudible] the people that are here, and go ahead and stand, everybody from the working group. I want everybody to see how many people we've got. We've got [inaudible,] Carol [inaudible,] Chip Cameron, [inaudible,] Joe [inaudible,] Elizabeth [inaudible,] Tom Hill, Linda Howell, Jake Jacobi, [inaudible,] Dr. White, and Fred Combs.

[Inaudible] in this group and -- I'm sorry, I have to get my top secret weapon here.

Part of what we wanted to do was have you think about a different way of operating and we're willing to listen to

comments. We are here for outreach at this point. And one of the things we're trying to do is maybe come up with some sort of alliance. And so we all have a button for you that you can get from members of the working group, it says Agreement States and Nuclear Regulatory Commission working together.

At this point, they're going to hand out buttons and we're going to accept any questions.

MR. CAMERON: Okay. Kathy, thank you. Can we get you and Jim to operate from this mic over here, and we'll give Carl the Lavaliere and we'll open it up for discussion.

I think we're going to -- Bob Walker, in a few moments, is going to talk about the tabletop, but I think we'll take ten minutes of the next presentation time so we can give you a lot of time to comment and discuss this particular topic.

So let's open it up for questions and comments, as the buttons are being passed out, at this point.

Anybody have -- okay. Kirk?

MR. WHATLEY: I have two questions.

MR. CAMERON: And could you -- I'm sorry.

MR. WHATLEY: Kirk Whatley, Alabama.

MR. CAMERON: Thank you.

MR. WHATLEY: I noticed that one of the things that

was not talked about was possible organizational changes that might be needed.

One of the things that really creates problems for us many, many times is our organizational changes that we really need to do something about.

A lot it's -- I hate to use the word prohibited, but that's what I heard -- from being talked about, to make this thing work better, possible organizational changes that are needed.

MS. ALLEN: I don't think we're necessarily prohibited, but something that the working group sort decided, we couldn't -- we didn't find it was in our ability to dictate that NRC needed to change their organization. We're kind of looking at -- or telling them the states how they need to change their organization.

So recognize that we need to be able to create some sort of oversight organization and that's what we're trying to focus on.

We also recognize that CRCPD and OAS may need to change or evolve to accommodate these kinds of interrelationship changes.

Does that make sense?

MR. MYERS: Which organization are you talking about changing?

MR. WHATLEY: Let me ask my next question.

MR. MYERS: Okay.

MR. WHATLEY: If the administrative core says to hell with the right, we're going to do it our way, much like has happened many times before, where does the alliance stand?

MR. CAMERON: Kathy and Carl and Jim, did you understand Kirk's point and do you any of you want to address it?

MR. MYERS: I do understand Kirk's point and let me say I think probably in the rush of trying to get all this information presented, I may have slightly mischaracterized it. I don't think that the Commission SRM said that we couldn't propose changes, but as I alluded to, I think that there is a high comfort level with the way organizations exist at the state and sometimes with NRC and the conference and OAS, they exist.

But as we move through time and they see that there will be some changes that are made, and Kathy just said that it's not -- I don't think that we want to get into a position of mandating or dictating, hey, you've got to do this, NRC, or

change your structure, that I think that eventually it would probably evolve into [inaudible] organization.

But given resource constraints and maybe at the direction of the Commission, based upon the kinds of suggestions that we make to them.

So it's not prohibited to, but I think there was reluctance to go there at this time.

MR. CAMERON: Kathy, you want to add something, and, Carl, do you, after Kathy?

MS. ALLEN: I think we made a lot of people at NRC nervous. They thought that here a bunch of states were going to show up and start telling NRC where to cut their budget and what kind of people to let go and what areas of their program that they needed to cut.

So we've been very cautious and careful about to sort of not go there. I mean, we're not going to dictate to NRC where they need to change things, but we want to sort of -- you need to change the fundamental way of thinking, first, and then they should be able to figure out what kind of changes they can do to their organization to match.

MR. CAMERON: Carl?

MR. PAPERIELLO: I think you shouldn't start from the

organization. You want to start from what do you want to do and who is going to do it. Then you decide what kind of organizational changes you need to implement the program that I want to carry out.

I don't think you start with the organization. You have to change the organization once you define what this program is going to look like.

MR. CAMERON: Okay. Let's go to Bill and then Aubrey and David. And keep in mind that this is all part of the stakeholder input process, commenting on some of the options and suggestions.

Bill?

MR. DUNDULIS: Bill Dundulis, Rhode Island. One of the things you mentioned, Kathy, was on the whole thing of regulation development and this may get into both organizations or all three organizations, the Conference, the Organization of Agreement States, and the NRC evolving.

Even though it may sometimes be applied process, the whole SSR development, I think, is something that we don't want to overlook or discard. Maybe there might be ways of speeding it up.

But having worked with the Part X group on medical

accelerators, and it was kind of convoluted, but I think maybe that might be one way of using, as you said, the centers of expertise, where you could get people to go together.

And maybe this is part of what you were talking about, the evolution, but I wouldn't want to get rid of the SSR process, except maybe to do more of what they're trying to do now, I think, with Part 35 and Part 34 of the parallel rulemaking.

MS. ALLEN: We recognize that the SSR is one of the success stories and those are the kinds of things that we would not want to get rid of.

But if you look at a lot of the medical -- sorry -- the rulemakings that have to do with materials, the SSRs are still reactive to what NRC has decided is the priority.

So we need to change the fundamental way of establishing priorities and what's important, first, and then, from there, maybe the SSR groups can actually be more effective, because they're focusing their efforts on things that we have real buy-in among the states that this is our big priority; yes, this accelerator stuff is a real problem, let's put our heads together and knock this one out and put this in top priority.

MR. CAMERON: Aubrey?

MR. GODWIN: I see I was apparently running ahead of my time again when I offered, some years ago, to do one of these yearly inspections, which now brings up a point that I'm not sure is representative of our discussions; namely, the NRC staff.

My impression is, and I may be wrong, that a large impact of the decision that came out was that some of the staff was concerned that we may be able to do the inspections and there would be a rule [inaudible.] I might be wrong on that, but that's certainly the impression I have.

I'm not sure that was [inaudible] Commission. A lot [inaudible.] Are you trying to tell me something, Chip?

MR. CAMERON: No.

MR. GODWIN: Along the lines of how would they review the inspections and [inaudible.]

Secondly, the issue of [inaudible] the medical stuff, right now, I'm not sure where the decision is, but it would appear that people like AMA and other national organizations may not want the state [inaudible] this kind of situation, because right now they can go to one organization and have a tremendous amount of influence on various [inaudible.]

[Inaudible] go to multiple entities to deal with it.

I think there's a lot of things that we would have to look at, and I'd be interested in the reaction of some [inaudible] national organizations issues.

MR. CAMERON: Carl, do you want to -- do you have anything to say to Aubrey's first point?

MR. PAPERIELLO: I think the issue of the impact on NRC staff, the NRC staff impact is going to occur no matter what the process is. I want us to address it consciously, because as the number of agreement states go up, but the number of NRC licensees go down, and we're running [inaudible,] we have got to talk to NRC staff no matter what you do.

Secondly, [inaudible] NRC staff is not outrageously difficult, because many of us are getting quite old, including myself, and in four years, I retire. There's a lot of compatriots that retire, too.

So somebody else is going to deal with the problem and I'm not saying this in a sarcastic way. I'm just saying I hear what you're saying. I think that's not the way to go. The approach is what we want -- we've got to start with what the program is going to look like. The program is going to look like what it looks like.

We've got to put that together. Then we worry about this. I have had some [inaudible.] We put 15 FTE on [inaudible] with DOE. That's disappeared. Those people are being reassigned. Nobody is giving away [inaudible.] The retirement rate in NMSS was around eight to ten percent a year.

Yes, we're all old. That I'm not worried about. [Inaudible] structural, but that's not a problem.

Let me throw something out. You talked about the AMA [inaudible.] Where do they go on an X-ray machine right now. Where do they go on medical accelerators right now? Where do they go for the rest of medicine right now?

MR. CAMERON: Before we go to David and then to Ed and Kathy, Jim, do you have a comment on Aubrey's point?

MR. MYERS: Aubrey brought up a very good point as to how you get this other input from standard-setting organizations, the other organizations that are out there. I think that we were wrestling with that as the working group.

The best way I can explain is is you've got to kind of use some technical terms. When we created the alliance, we didn't quite have it quite yet defined how these folks would be able to input into the alliance.

But what we have done is to put what I call the U.S. universal serial bus port on the existence, so that anybody can plug into it. And I think, in the long run, by being able to go to the alliance, if that's what it's eventually called, they would have probably better and probably a more open view, but you could basically, by putting it into the alliance, you're addressing your concerns to all of the parties, rather than to single, 33 individual organizations.

MR. CAMERON: Okay. I think that point comes across. David?

SPEAKER: At the risk if suffering Herb's look and getting booted out of the room, I have a question. Why not call this the national radiation program rather than the national materials program?

Carl, to answer your question, where do they go, back many, many years ago, when Ed was with Texas and I was with Arkansas, we talked about a single radiation protection agency.

Has this been discussed? I know it's huge. You talk about what the program should be. Periodically, our staff gets together and we talk about this and we talk about that, and one of the things that always comes up is who is regulating that or where do we go with this. Five, six, seven, eight Federal

agencies are involved in the word radiation, and I know it's huge.

But if we are taking on a big project like this, why don't we take on a bigger one and try to get something going called a national radiation program?

MR. CAMERON: In response to that, would the alliance perhaps be a building block?

SPEAKER: I think we believe that it would be a building block. You see, the working group is in a pickle here, a technical one. We have direction from the Commission to do certain things and that's why we caveated our statements earlier with national materials program, the term is bandied about, capitalized, underlined, and highlighted.

Yet it really has no basis. It's just a term of art that's been used and we use national materials program to describe our working group, because that's kind of what we're working on.

But I think the working group has come to the conclusion that it isn't done until the Commission makes a decision sometime in June or July of next year, after we present the options to them.

If they want to call it the national radiation

control program or national materials program or the alliance or whatever, they are free to kind of give some additional guidance on how to do that.

So we're kind of working at the very basic level and kind of showing what the basic concept might look like, and truly I think it would encompass a lot of those organizations and other regulators and other Federal agencies and so forth at some point in time.

MR. CAMERON: A process question, I guess, for the working group. Will there be an opportunity for individual agreement states or the Organization of Agreement States to provide any input to this, besides their participation on the working group, before it goes to the Commission?

SPEAKER: We sort of anticipate having this out for public comment, that will have a lot of paragraphs and stuff in there, and there will be paragraphs about maybe expanding this to include things other than [inaudible] material or AEA materials.

And a bunch of other issues will be raised in our paper that we've sort of raised. That will go out for public comment. Then we'll come back and get all the comments together and then it goes up to the Commission. So we're

trying to get this sort of stuff out. There's also going to be some articles coming up in some new [inaudible] Health Physics Society newsletter covering this pretty well, I think, coming out next month.

So we're hoping to start some discussion on a national level, as well. So you can contact us at any point or any time and you can also check out the NRC web site, where we try to put up as much of the stuff that we've done already.

MR. CAMERON: Okay. Thank you. Ed Bailey?

MR. BAILEY: I guess what I see is a sort of change. You mentioned a couple of [inaudible,] which I think could serve sort of [inaudible] what you're talking about.

Back many years ago, Bill Selin and I one night sat in my dining room and [inaudible] and we got up the next morning and went to make copies of that, and that was useful.

And right now [inaudible.] We came out with the most formal draft of Part 20. Nobody had told us to do that. Finally, we got [inaudible,] well, we like [inaudible.] In fact, we had it [inaudible] for a long time.

Once we did that and had the conference brought in, we had a rather difficult time [inaudible] in getting the NRC to accept the new one, that somebody could come out and write a

new part without the NRC having given the road map on how it should be done.

I'm, one of these days, going to pull out the old pen-and-ink [inaudible] computers, draft and compare it to the Code of Federal Regulations [inaudible] not a lot of changes in that draft.

Also, we're fortunate that we [inaudible] radiography [inaudible] certification. And we were basically told in the early stages [inaudible,] but we had one of the NRC Commissioners, I can't remember [inaudible,] came [inaudible] in one of our meetings of the [inaudible] and he actually offered [inaudible.]

We developed a [inaudible] program and we were able to carry that forward and [inaudible.]

But the main thing is that rather than both the sort of exception to [inaudible,] they should have the right to [inaudible.]

You don't try to force someone's [inaudible] to improve the situation. Somebody [inaudible.] The NRC [inaudible] working under very informal [inaudible] saying that we will [inaudible.]

The very next [inaudible] and which are the ones

responsible. We will take the lead, we will do it, the other people will essentially [inaudible.] [Inaudible.]

That's the sort of kind of [inaudible.]

MR. CAMERON: Does anybody have a follow-up on that? Then we'll go to Bill for a final --

SPEAKER: I think that what Ed was saying is what we would call the larger group using existing or past successes, because I think that's where we will [inaudible] that idea.

So I think it's very supportive [inaudible.]

MR. CAMERON: Bill?

MR. DUNDULIS: Bill Dundulis, Rhode Island. I couldn't resist the opportunity. I'm not sure if this is a Freudian slip or a very subtle plea for another issue in the area of DOT [inaudible.]

You say that the way Part W and the radiography was developed should be the norm for future development.

MR. CAMERON: Thank you for adding that.

SPEAKER: Let me make just a couple observations. I like what I heard this morning. We're really pushing, we're working to get the coordination and cooperation which I think the law envisions, what Congress envisioned that we do.

Let me reflect on a couple things. National

radiation control versus national materials. I think I made up the term national materials. I don't know for sure.

I've thought about national radiation. I don't know if we could [inaudible] right now. It clearly requires significant legislation.

But I would throw the challenge out to you. Would you be willing to merge OAS with CRCPD? Okay. I'm not telling you to do that. I'm just saying, reflecting the other way around.

Second, I think the public sees [inaudible] as different than expert. Whether we like it or not, and, as a physicist, I don't see any difference in the public responding to the different places.

All you've got to do is look at, watch one of the internet [inaudible] radiation, talking about the irradiated food with accelerators and making a distinction between that and Cobalt, and the fact of the matter is people do it. So it's just the way it is.

We're evolving, we're moving, and I think we're moving [inaudible.]

I'm going to throw something out, and this is not my position. When you consider about a fundamental radiation

program, the international community, whatever that may be, the people who did [inaudible] at one of the reactors, I think North Anna, made the recommendation, the NRC or the United States -- not the NRC -- the United States should, as the Europeans have, go to ICRP-60.

The question is that I'm going to throw out here, and not an answer, I'm not making any recommendations. If, in fact, the United States, whatever they may be, decides to do that, how should it be done? In other words, who will make the decision, keeping what Congress said here, how will that decision be made?

I don't know how we decided to go to ICRP-30. I know I was in the NRC, but I was out in the field in practice at the time and I am going to look into that decision.

Among other things, the EPA changed Presidential guidance. But I'm just saying something to think about, if this country would go to ICRP-60, how would that decision be made? Thank you.

MR. CAMERON: Thanks, Paul, for the provocative questions for everybody.

Before we go to Bob Walker, does anybody in the audience have a comment or a question on the issue? Yes, sir.

If you'd tell us your name.

SPEAKER: My name is [inaudible.] [Inaudible.]

MR. CAMERON: Did you guys all hear that?

SPEAKER: No, I'm sorry, I didn't.

SPEAKER: The question was, is the working group addressing anything along the lines of the IPE, looking at that? Is that the question?

MR. CAMERON: The questioner said yes, that was.

SPEAKER: Okay. The answer is yes, we kind of looked at it as kind of an example of how to do cooperative work.

MR. CAMERON: Okay. Thank you. Anybody else have a question or comment before we bring Bob up?

SPEAKER: Chip, I've got one last thing.

MR. CAMERON: All right.

SPEAKER: I'd just like to remind you all that we have lots of folks from our working group here. Please, approach them and address your concerns, your questions and your comments with them. This is a great opportunity to meet them, as well as to discuss [inaudible.]

MR. CAMERON: Okay. Thank you. Kathy, do you want to introduce Bob?

MS. ALLEN: As Jim said, actually, the working group

is a fantastic group of people. There are outreach programs for [inaudible] and all kinds of work being done. So I just wanted to hopefully thank everybody on the working group who have made this job much, much easier.

Even though everybody is not up here speaking, they've really worked very hard and, please, come to them, talk to them, this is how we get our ideas and this is how we all work together.

Bob Walker is coordinating the tabletop exercise. So get out your homework and listen to the teacher up here.

MR. WALKER: Thanks, Kathy. All the speakers this morning that you've heard the last hour worked by sharing or cooperation and coordination of this effort, and this exercise is going to start right now because we're [inaudible] do that. [Inaudible.]

SPEAKER: It used to be [inaudible] staff.

MR. WALKER: Over the last month, you've seen some old things on RADRAP, one from Kathy and a couple from me, talking about the national materials program and what folks do with it.

And we also asked for your cooperation in bringing to this meeting your top three priorities in rulemaking, consensus

standards and guidance documents, the kinds of things that you'd like to see over the next 28 months in those areas.

[Inaudible] and be prepared to hand them to us at this meeting. What we're going to do with those is take them away and [inaudible] between now and tomorrow morning, the committee is going to get together and prioritize those things and we're going to come back tomorrow on what this looks like and a consensus for regulatory priorities over the next [inaudible.]

So if those of you who haven't seen the bulletins on RADRAP, if you [inaudible] get them to myself or Kathy or Jim or any of the other committee members between now and lunchtime, then we'll start working on that this afternoon and evening and hope to have something to you tomorrow.

SPEAKER: Are there any questions about the tabletop? Make sure that you put your state names on these. It can be multiple pieces of paper, a single one, but include what state you're from.

MR. CAMERON: And the tabletop may illustrate questions or bring some questions up for you about some of the generic issues that the working group is trying to address, too. So I think there will be an opportunity to put those on

the table when we do the tabletop.

Okay. I would thank Carl and Kathy and Jim and Bob Walker, and we're going to move into our next segment, which is going to start with Ray Johnson, from the Health Physics Society, and then we're going to go to Mike Ryan, who is going to talk about NCRP, what the committees are and how they work.

Ray, do you want to come up and you're going to talk to us about a number of issues, I believe, right? And Ray, as many of you know, is the immediate past President of the Health Physics Society. And, good, Mike is coming up, and we'll have both of them up here.

And we'll break for questions for Ray. We'll have questions after Mike. But there may be questions that refer to both of their -- that are stimulated by both of their presentations.

Do we have an overhead projector guide?

SPEAKER: Yes, we do.

MR. CAMERON: All right. We do, but it's in North Carolina.

SPEAKER: Anybody else from South Carolina know what they're doing?

MR. JOHNSON: I would point out that I have a copy of

the slides that I'll be sure and leave you, if you'd like to get one. These will be passed around.

Also, I'd like to be inviting your comments on the proposal that I will be sharing with you shortly and if you would, please, record your comments on one of these cards, so I can capture your feedback.

Thank you for the opportunity to visit with you. Some of you may recall that I had the opportunity to visit you a year ago at the meeting in Texas. So I bring you greetings from the Health Physics Society, the officers and the Board of Directors.

The Health Physics Society is very much interested in developing our continuing relationship with the state and with the NRC, but to offer what we can from a professional development role in the field of radiation safety.

The current President of the Health Physics Society is Dr. Paul Rohr. He was invited to represent the Society at this meeting. However, I had talked with Paul about the possibility of coming to meet with you, to invite your response to a Health Physics Society initiative, and Paul said, "Well, Ray, if you're going to do that, how about if you also represent the Society." So I'm privileged to have that

opportunity this morning.

Could I have the next slide, please?

For more than 15 years, I have been providing training services to RSOs and to radiation workers and I know that most of you deal with those folks on a day-to-day basis and probably would share an observation which I've noted many times, and that is that they don't always understand the information that we present them.

And I think of a little boy who's standing in the back of a church looking up at the wall and there's a plaque with a lot of names on it. He's studying this plaque. The pastor comes up and asks the little boy, "Do you understand what that plaque is?" The little said, "No," he didn't. And the pastor says, "Well, those are a list of all of the names of people who died in the service." The little boy looks closer at the plaque and after a bit, he turns back and he says "Is that the 10:00 service or the 11:00 service?"

Now, as a training provider, I get asked all the time about what are the qualifications needed for RSOs; what do I need to know, what regulations should I know about, what will I need to know about licensing, and, most of all, what do I need to know to stay out of trouble.

How much training is needed? What's the magic about 40 hours? Wouldn't 16 hours or 24 hours be enough? And can I be an RSO without any previous training or experience? And this is a question that comes up quite often and the fact is, at the end of each of my classes, I like to ask a question about what is the previous training or experience, and quite often find out that they've had no previous training or experience at all.

The other question I ask of these students is how many of you are here because you drew the short straw, and usually had go up all around the room.

So this is a sample of what I've been observing for many years in this area.

Next slide. Now, I've briefly summarized my view, at least, of some of the roles that are interrelated here. RSOs whose role is defined by regulations and licenses, NRC and state to establish those regulations and provide the licenses, and the Health Physics Society, which is intended to offer professional and technical support to publications and conferences and educational opportunities.

I would suggest for you, though, that our roles have collectively changed over the years. Since the Health Physics

Society was formed in 1956, in those early years, many of you were involved and you know that there were relatively few rules and programs and that our goal was to establish programs and implement programs.

In the current years, however, more radiation safety people are involved in implementation and we've seen the changing role of the states, where, in the '50s, most of licensing was done by Federal regulation and now most of it is being done by the states.

As regulations now become more prescriptive, the view of the RSOs, at least, is that radiation safety often means following the rules and, consequently, what we may see evolving over the years is a need for professional health physicists' judgment, education and experience, and more of what we would traditionally think of as health physics functions are now being done by people who call themselves RSOs and typically are not full-time specialists in radiation safety.

RSOs often have less training than you might expect from a professional health physicist and they often wear multiple hats. And, in fact, [inaudible] to the broad-based safety professionals.

And, unfortunately, their focus may not always be as

much on safety as it is on avoiding violations; in other words, following the rules.

The Health Physics Society is primarily for full-time practicing health physicists. Now, how does that allow us to link with RSOs? RSOs, by and large, do not identify themselves as health physicists.

In fact, at a class that I had [inaudible] about a year ago, I had a class with 22 students and the first morning, I asked how many of you know the words health physics or heard of the Health Physics Society. Out of the 22 students, one person raised their hand and that person called himself a health physicist.

So the others in the group of students had not even heard of the words health physics or knew of the Health Physics Society.

Should the Health Physics Society be providing services to these folks, such as education and technical support and networking?

Over the past year, I've invited the Executive Committee and the Board of Directors of the Health Physics Society and the membership to come to grips with the question of who are we, as we come into the new millennium, who do we

represent, who do we want to represent.

If we were to make a special effort to include ourselves in the society, would that change our professional status to becoming more of a trade organization rather than professional?

What is the mission of the Health Physics Society? Should this society be the primary resource of information and support services for radiation safety practitioners in the United States? Does the society have a responsibility for maintaining and upgrading the quality of radiation safety programs by providing membership services to RSOs?

What happens if RSOs make a mistake? Does the general public have any idea that [inaudible] between RSOs and the health physicists?

We know that there are over 20,000 radioactive material licensees in the United States. Each of those has an RSO. And that many of these licensees also have staff. So I'm estimating that there are perhaps 50,000 or more people in the United States with responsibilities for implementing radiation safety programs.

The Health Physics Society, as with your programs, can enhance the competence of these people, but who has the

responsibility? What are the qualifications for RSOs and what are the programs available for RSOs to develop those qualifications?

Well, we know that the campus radiation safety officer group, which apparently has a mailing list of about 800 names. They're not a formal organization in terms of officers or organization structure or publications.

There's also another group representing many RSOs, the National Registry for Radiation Protection Technologists, of which there are about 4,000 at the current time.

So by and large, if you look at those numbers on the previous slide and considering that there are 40,000 or more RSOs and many more people who work with them, neither of those previous organizations or the Health Physics Society are really providing support for this large number of people.

The mission of the Health Physics Society is assuring excellence in radiation safety and the question is, does this include or should this include RSOs.

Should RSOs be included, even when they're not full-time practicing health physicists? What does the society have to offer? Publications? They need to know of the high quality of our journals, which Mike Ryan is current the editor

of. And the [inaudible] publication, Operational Radiation Safety, that has had a very significant [inaudible] in our society. And, of course, our newsletter, which I know many of you receive, and then a membership book and the web site.

We hold two large meetings each year, which include many training and educational opportunities. WE also attempt to represent good science and good practices in radiation safety for intervention with Congress and agencies and with you guys.

Now, about four years ago, I was instrumental in establishing a new service directed toward RSOs, called the RSO Section, which stands for radiation safety operations. This was to be intended to be a service not only for RSOs, but their staff.

This section is now over 600 members and it's the largest section of the health physics society. So it seems pretty clear that within the current membership of 6,000, that there is an interest in this area.

But how is the Health Physics Society connecting with RSOs? We now have two mailings to about 18,000 each, to RSOs, [inaudible] that we got from licensees, from agreement states, and from the NRC.

Out of these mailings, which invited RSOs to consider services of the society, we've gotten about 200 new members. Now, the significance of that is that over the last six or seven years, we have gone from a membership of about 6,600 down to 5,800 and over the last two years or over the last year in particular, that number has gone up by about 200, we're now back to about 6,000. Now, not all of these are RSOs.

So what I would conclude from that is that by and large, even though we've made some initiatives to connect with RSOs, but they're still not really identifying with the society and mainly because, as I indicated earlier, most of them did not call themselves health physicists.

So the role of the society with regard to RSOs is we've offered membership and we still hope that might be a helpful service.

The alternative, though, that I'd like you all to offer feedback on today is that perhaps rather than asking RSOs to call themselves health physicists and be a member of this organization, that perhaps we should be helping RSOs to set up a credentialing and a technical support service specifically to meet their needs, in the same way that the Health Physics Society originally set up the American Board of Health Physics,

for certifying health physicists, and the society also set up the program known as the National Registry of Radiation Protection Technologists.

For this purpose, the board did approve an initiative at the meeting in Denver, a committee to consider credentialing the technical support of RSOs. The names of the members of the committee, it's quite a large committee, it includes the names of several people here in the group today.

The reason the committee is so large is we're trying to incorporate a very broad perspective on this issue, and, of course, that's the reason that I'm here to talk with you today.

The role of this committee and the questions I would like you to begin to consider is evaluate the need for RSO credentialing, considering how credentialing services could be offered, how to provide the RSOs with technical support for implementing radiation safety programs, for developing and establishing competence and for obtaining credentials.

Now, my last slide has a list of questions on which I would like, if you would, please, to offer your comments on these cards. Now, if you would, just write down one, two, three and four, with your comments. If you'd like to include your names, that would be very helpful.

Basically, what I'm inviting is your feedback and written comments, of course, will be easier to work with, in order than when I go to the Health Physics Executive Committee meeting in two weeks, which is going to be right here in this same building, I get to be back again in two weeks, that I would have some concrete feedback from all of you to share with the Executive Committee and then later with the Board of Directors at the June meeting.

So at this point, I would like to open the floor for discussion on the questions I put up on the board or any other comments that you'd like to offer.

MR. CAMERON: Thank you very much, Ray. Do we have questions for Ray or comments on the questions on this particular viewgraph?

SPEAKER: [Inaudible] comments about the possibility of this, one of the questions you asked me, if I remember correctly, was would the credentialing of RSOs be [inaudible] to the licensing program. [Inaudible] concerns they have, the more difficult task is evaluating [inaudible] people that are studying to be RSOs.

And, you know, not being one to want to take on extra work, there was some work on the notion that [inaudible]

credentialing, I thought that it should be [inaudible] and from that, we sort of came up with the idea of making [inaudible.]

I noted in your -- you're talking about 40,000 RSOs. There are also -- I think we've got 25,000 [inaudible] in California. At least in theory, every single one of those [inaudible] and I think [inaudible] is that some of our least safety conscious facilities are the ones that have [inaudible] or the techs do most of the work.

So there is possibly another group there that [inaudible] doesn't work itself [inaudible] medical.

MR. JOHNSON: I see many of you are notes on the cards. Again, I greatly appreciate whatever comments you would like to share.

MR. CAMERON: Aubrey? Aubrey Godwin.

MR. GODWIN: Aubrey Godwin, Arizona. Is this going to be a concurrent program? I'd like to suggest that along the lines of the [inaudible] qualifications for different types of RSOs; for example, being an RSO for [inaudible] radiography might [inaudible] X-ray facilities.

Also, maybe some sort of accreditation process developed either by the HP or we encourage other [inaudible] an accreditation process is important to training [inaudible]

people.

We have a few independent trainers now, as you're well aware, and some are pretty good, some are okie-dokie, and some are [inaudible.] And when they come to us, we have to look at them as being good unless we can prove they're bad, and we've seen them once.

SPEAKER: Thank you very much. Those are very good points and I don't have answers specifically for those, but I'm hoping [inaudible] and your experience.

MR. CAMERON: Okay. Anybody in the audience have a comment on this for Ray? Steve Collins.

MR. COLLINS: Steve Collins, Illinois. As to your first question, I would think that that would be yes, but there would need to be a limit or approval for each type of licensee category, because the training requirements for those different categories vary so much.

SPEAKER: [Inaudible.]

SPEAKER: I believe you're right. That's the same point that Aubrey Godwin, that Aubrey made, and that would be one of the things consider [inaudible] different categories of licenses and the RSO qualifications.

MR. CAMERON: Okay. Go ahead, Bill.

MR. DUNDULIS: Bill Dundulis, Rhode Island. One thing that I am concerned about, particularly in answer to question three, would such a program include quality, I think even if you had such a program, in many respects, it would be preaching to the choir. Those who would probably sign on are probably those that we're least wary about, that probably have some degree of competence already, and the ones which you really want to reach are probably going to be the ones that unless you put a gun to their head, are going to the ones least likely to try to do it.

SPEAKER: One of the things RSOs have shared with me about this matter so far is that, first of all, every RSO I've talked to thought this was a good idea. But one of the factors is provide some visibility and recognition for their function, which, in many organizations, is way down at the end of the organization chart.

MR. CAMERON: Okay. Roger?

MR. SUPPES: Roger Suppes, Ohio. It seems like one of the unanticipated outcomes of some certification programs is that whoever gets certified then wants to delegate responsibility to somebody else, and that seems to be what we've been through in Ohio, is when you've got, let's say, the

radiation expert or the RSO or the individual responsible for radiation protection or whoever ought to have special judgment and be able to delegate those, and you don't need to have those people certified.

So I think that certification and recognition of who these folks are is important and something we should do, but it seems like with the emphasis on cost containment in a lot of institutions, there's a lot of possible unanticipated outcomes.

The person who is actually doing the test is not the person [inaudible] on the license.

SPEAKER: That's a good point. Thank you.

MR. CAMERON: Any other points on credentialing that anybody wants to offer?

SPEAKER: We just went through a credentialing process in Arkansas and there was a grandfather clause attached to it for a one year period. Would you envision something like this?

SPEAKER: Perhaps. I haven't heard of that, but that would certainly make some sense. I know in the Health Physics Society, the original group of the American Board of Health Physicists were 100 people identified as exemplary of the profession and they [inaudible.]

SPEAKER: And that depends if it becomes regulatory or not.

SPEAKER: Thank you.

MR. CAMERON: Okay. Let's go to [inaudible.]

SPEAKER: [Inaudible.] I think the majority of states, we enjoy the luxury of being able to take on the individual, but not necessarily have a set [inaudible] credentials a person must possess.

This gives us the autonomy [inaudible] individual. I know the State of New Mexico, we ask for the resume.

MR. CAMERON: [Inaudible] Stan.

SPEAKER: Let me start over again. The State of New Mexico, like many of the states, takes a look at the credentials, the resumes of people who would be RSOs, and we kind of like that idea because depending upon the education and experience, we can't necessarily what's cut-and-dried [inaudible] as far as what a person should possess.

I think a lot of [inaudible] would be better. I know [inaudible] people receive applications for a license to be an RSO, we ask for that and we reserve the right to tell whether or not that person should be an RSO.

So I think that HPS can provide a good service by

setting up support. I think the states are still going to be [inaudible] to determine who would serve in that position.

SPEAKER: Thank you. I would certainly full expect that; that if there were credentialing services available, this would just be another source of input or evaluation [inaudible,] but that the states would certainly or the NRC, whoever [inaudible.] You're right.

MR. CAMERON: Okay. Ray, thank you very much. And people can just turn in their cards before you leave.

SPEAKER: Yes, or at the lunch break or whatever. Again, I thank you very much for your feedback, appreciate it. Thank you, again.

[Applause.]

MR. CAMERON: Mike Ryan is going to tell us about the NCRP committees and relationships with agreement states and states in general. Are you ready?

MR. RYAN: I'm ready. It's always hard to be the last speaker before lunch. You have to keep track of the public speaking rule [inaudible.] Be yourself, be prepared, be clear, be brief, and be seated.

I want to try and stick with that goal and I'm going to give you some information about the NCRP.

Let me first, again, welcome you all to Charleston. It is where I make my home now, and there are hundreds of good restaurants within a block of here. So if anybody gets a bad meal, you must have tripped it out of town. It's a great place to have [inaudible] and the weather for the next few days looks terrific. So get out and about and enjoy the wonderful downtown area.

It's my pleasure also to meet with you, the Organization of Agreement States, because [inaudible] earlier said, I believe that radiation protection occurs at the local level [inaudible.] [Inaudible] Speaker of the House said all politics are local, and I think all radiation protection, maybe not all, but a large part of it is the day-to-day interaction of people using radiation and radioactive materials.

That brings me to what the NCRP can do. We are an organization, one of those locuses of some sort of skill and capability, during the 1950s, '60s and '70s, but as time has evolved, the role of the NCRP has not evolved with the changing times.

I believe that there is a body of expertise nationally and internationally in radiation protection that extends beyond what was once the center of one of the

[inaudible] of the NCRP.

I've been involved as a board member and a scientific vice president for NCRP and, particularly, over the last year, in strategic planning for the organization.

One of the things that the NCRP recognizes -- next slide -- and I'll tell you [inaudible] in a minute, is that we had [inaudible.]

The members of the most recent committee to develop implementation plans [inaudible] myself, Dave Moeller, John Poston, John [inaudible,] Byron McNeal, Carol McLean, Jim Alstein, and, of course, [inaudible] quite a nice array of folks that have been involved with trying to ask a simple question, what can the NCRP do to further enhance its mission to collected, analyze and disseminate radiation protection information in the public interest and collaborate with other organizations who have a similar or like purpose.

That is, in fact, NCRP's mission. So we are redefining and [inaudible] ourselves along that mission.

Next slide, please.

This, believe or not, started with some simple meetings and some [inaudible] activity back as far as 1997. A letter was written identifying five recommendations for

strategic initiatives the NCRP should take.

Not much happened until 1999, when it was recognized that budgetary shortfalls, which catch everybody's attention that something needs to be done, forced the NCRP to really assess the strategic future.

In 1999, the board approved an ad hoc strategic planning [inaudible.] Next slide, please.

In April of 2000, that first committee's report was prepared and accepted -- prepared, delivered and accepted by the board of directors.

It was a survey of all sorts of folks from a wide variety of constituencies, about 800 individuals responded to the survey, 890, I think it was, and they had some very powerful and useful information to identify some of the strengths and weaknesses and the opportunities [inaudible.]

At the annual meeting in April of this year, the board empowered [inaudible] this list I showed you to recognize activities and things that could be done to implement those strategic recommendations that came out of that survey.

So September of 2000, just this last month, the implementation committee transmitted its 11 recommendations to

the board of directors, with supporting information. The board is scheduled to meet in November to consider and act on those recommendations.

I'm pleased to tell you that both of these strategic planning committees were [inaudible] and met their obligations on time. Something kind of unusual in NCRP, but that is a key weakness that we have. We have to be more timely and, I think, more topical and relevant to the needs of those who support the organization.

[Inaudible] were recognized in the surveys. NCRP's position with respect to the National Scientific Consensus [inaudible] disseminated information, guidance and recommendations on radiation protection and measurements.

Some folks know that their NRCP reports are well formed, well annotated, and when they come out, they're valuable. Boy, we wish they came out sooner, very often, but when they do come out, they have information that's helpful.

There is a breadth of scientific capability in the council, and it's medical radioactive materials and other areas. There's lots of folks that give their time freely to contribute where they can.

There's a lot of utility in the reports. The NCRP

annual meeting provides an opportunity for both public and private dialogue and is generally well attended, up in the 800 to 1,200 person range.

Typically, it's a topical meeting, very often one that [inaudible.]

Some of the agencies, and I say some, that I see NCRP is meeting their objectives. Some of the states have a willingness of experts to serve on the NCRP on different committees, very often giving up tens or months of a year to do various NCRP report activities.

And those council members feel comfortable with their level of involvement. They don't feel like they've been asked to do too much, which means we probably don't ask them to do enough.

Next slide, please. Here are the weaknesses. Unrestricted funding is decreasing. Now, that's not particular to NCRP. Lots of organizations have seen the same kinds of trends.

I just saw an article in Scientific Information World that said the National Academy is undergoing the same kind of problem, decrease in funding. There is a decrease in volunteerism.

I tell the folks the story that when I worked at Oak Ridge National Laboratory for [inaudible] working on this NCRP report, that was my job. Now, when I'm doing NCRP activities, that's extra.

So volunteerism is not as closely integrated into our day-to-day activities in radiation protection practices [inaudible.]

I think the key thing is that the number of reports published per year has increased. I look at that as an issue of relevance, what is important to folks, what do they need to have and what is going to help them in radiation protection practice.

There has been a [inaudible] produced reports in a timely fashion, and I say that openly and without excuse. It just hasn't happened. Sometimes reports have taken up to 11 years to complete. One report had two members of the committee that had passed away, but it was finally published.

So that [inaudible.] There is a backlog currently of unfinished and unfunded report-writing committees, some of whom have topics, I think, of great interest to this organization [inaudible.]

There's a competition for money and time with other

activities. There are other organizations, both National Academy of Sciences or Institute of Medicine or other kinds of organizations that compete for money and time, some national and some international.

Some folks participate in IAEA, [inaudible,] and others. [Inaudible] seeing how things are shifting, for example, from NRC to the agreement states. The licenses are shifting and NRC's budget is rightfully shifting to go with that kind of change.

The NCRP now needs to recognize that fact, that many agencies and NCRP do not meet the objectives because there's been a drift in what NCRP focus is on and what now is the focus of the Federal and state agencies and [inaudible] forces NCRP to realize [inaudible.]

There's a failure to inform sponsors satisfactorily on progress. The old days were give me a big box of money, we'll write a report and we'll tell you when the report is done.

So I think it needs to be much more interactive. These days, radiation protection regulations are not a science for experts, its not arcane, lots of folks understand the [inaudible.] It's much of a participatory process and I think

NCRP needs to recognize that.

There is an uncertainty about NCRP's cooperation with other organizations. NCRP, I think, [inaudible] science group in the U.S. had heavy leadership position [inaudible] for a long time. There are others that are in the race now on both sides. I think NCRP needs to look toward these other organizations to work cooperatively and collaboratively, I say that carefully, cooperative and collaborative, with all sorts of organizations that cross radiation protection.

That is a particular [inaudible] that NCRP can do to [inaudible.]

Our implementation planning committee [inaudible] committee was formed to develop an improvement plan to address the weaknesses in the council's work. Very important statement. To offer an improvement plan to address the weaknesses in the council's work.

The ad hoc committee has completed its report and made 11 specific recommendations to the board. The board of directors is considering the [inaudible] these recommendations.

Next slide. Now, the key recommendations are grouped into four areas. Number one, improve the timeliness of reports. I say reports in the broadest way because what a

report is may actually involve [inaudible.]

Timeliness is not only when it comes out, but what it addresses. Relevance is a key part of what NCRP, I think, needs to address. Relevance of what's needed in current practice.

The way I look at it, radiation biology and fundamentals of radiation protection science are I won't say finished, but there's a very large body of evidence in those areas.

What I heard everybody talking about today, which I think the NCRP can help a lot with, is implementation. How do you get things into practice? How do you get things on the table and working, whether it's for an individual licensee, a state program or a national consensus kind of project, whether it's a norm, whether it's an X-ray, whether it's radioactive materials, whatever subject it happens to be.

How do you implement decisions you make? How do you arrive at consensus standards for decommissioning the contamination? How many folks have had to actually terminate a license and decide on decommissioning numbers in the absence of this kind of national [inaudible.]

Lots of folks. Wouldn't it be nice to have NCRP

participate in that process to maybe bring all of that a little bit closer together?

For example, I just pointed out. I think understanding how reports can be relevant to what's needed today might be a real [inaudible] and there are very specific recommendations to do that.

You approve the [inaudible] process for producing reports. There are a number of recommendations that address what a committee chair does, how it gets done, responsibilities of committee members. [Inaudible] ought to make it much clearer. If this [inaudible] product inspected on schedule, there's a particular need to address the particulars of what types of things the funding agency should be doing.

A very important process is how those reports get published, whether they're internal and the contractor talks about how all that gets done, the business aspect is another area of recommendation. It's very important to [inaudible.]

We need to respond to a broader range of [inaudible] needs; again, implementation and relevance are the two words I use to describe that.

I think we need to work more collaboratively with other organizations. One of the areas of recommendation is

membership. The election process and getting members into the NCRP is a little bit like electing the Pope. [Inaudible] the white smoke.

I think it would be a much more viable organization in the long haul if we recognized that a broader participation of a broader membership in NCRP was the order of the day. We put a couple of different kinds of structured proposals for the board to consider on how that could be done, but the principal is broaden participation so that we can bring more of the radiation protection community into participation into the NCRP. That's an important aspect of it.

I think by doing that and by driving the participation in some way, we can then work more collaboratively with those organizations that are represented by this wider membership.

Next slide. Mr. [Inaudible], as you know, is the President of NCRP and at the annual meeting last year, he announced he is not going to seek another term as President. Officially, his term ends like April 2002.

[Inaudible] Stanford is heading up the search committee. HE is actively seeking input on nominations for the next president, and he will be reporting to the board in

January on the input and recommendations and nominations that he has received.

So that's an ongoing process. I would offer each of you, as an agreement state of this organization, to please make your desires and input known to [inaudible.]

What is the NCRP of the future going to look like? These are kind of, I think, roles that I would put forward as the kinds of things that NCRP should have in its mind as it moves into this next millennium.

[Inaudible] and be recognized as an authority on radiation protection standards, [inaudible] radiation science. NCRP and its funders are fully engaged together in the processes that can help both [inaudible] relationship.

States are involved and NCRP is the resource. I'll stop on that one. I think it's very important to figure out, and this organization is one great mechanism, how the NCRP can serve and be of support to the radiation protection programs in all of your states, as well as the states that are regulated by the NRC.

It's obvious to me, just sitting and listening, that you are becoming an organization that has its own momentum and its own direction.

How can we help? A very simple question. What do you need? Is it implementation guidance, is it X-rays, radioactive materials, and so on.

So I will leave that question with you. Give me any feedback or input you like on that, I'd be happy to have it at any time.

Next slide. The actions of NCRP are timely and fully responsive to customer needs. There is continuous improvement through feedback as a foundation of operations of NCRP.

Yes, please give us your input. [Inaudible] support [inaudible] scientific agenda that we currently have. One thing I might add is the scientific vice presidents are scheduling meetings with Federal agencies in the [inaudible] and some state folks also to gather input on areas of interest. One area, of course, is radioactive and mixed waste, [inaudible] of operational radiation safety committee.

We're having a joint meeting in November to gain some of that input. I'd welcome input from this organization, as well. What can we do to help solve your problems? What kind of things would the NCRP products be of value to you? So that's an important opportunity to give us some input. How can we better support your states' radiological health programs?

And that's it. Questions, comments?

MR. CAMERON: Maybe we could leave that slide up, because there are a good set of questions. Let's start with Bill.

MR. DUNDULIS: Bill Dundulis, Rhode Island. Two questions. The first one, and this kind of plays in with how can you help state radiation programs, what is the latest floating deadline for the NCRP-49 rewrite? I mean, that's a good document, but it's basically X-ray shielding as it was practiced in the '70s.

Then the second question is, you know, one of the perceived weaknesses you said was failure to communicate with sponsors on a timely basis. But just as an observation, that may be a very fine line, so that it's not perceived that the sponsors are having too much input into exactly what the report says, because they think that could damage your overall credibility as an objective purveyor of true science.

MR. RYAN: I agree on both points. First of all, the shielding report, I do not know of a schedule to update that at the current moment. I do not believe it is in the revision.

MR. DUNDULIS: There's a working group supposedly.

MR. RYAN: There's a working group just forming?

MR. DUNDULIS: Three years ago, at least.

MR. RYAN: Three years ago. Well, I do not know the schedule, so I'll have to apprise you. I'll find out and let you know.

With regard to the communication aspect, I agree with you. I think it's important not to compromise the scientific integrity of the report development process. However, I do think it's important to at least report progress or lack of progress.

But I think clearly the communication on schedule and anticipated schedule and so forth needs to be brought out. [Inaudible] of course, is what NCRP is good at and I think that has to maintain a high integrity.

MR. CAMERON: Any others around the table on these three questions?

MR. RYAN: On this shielding report, let me also give you an idea. One thing I've tried to flash is I think it would be terrific if that was a CD calculational package.

MR. CAMERON: Let's go to Greta Dicus, and then we'll go to Ed Bailey. Greta?

COMMISSIONER DICUS: [Inaudible.]

SPEAKER: No, no. [Inaudible.]

SPEAKER: Can we sign over the mic?

SPEAKER: Again.

COMMISSIONER DICUS: Here we go again. Now, one of the things that certainly affects my agency and affects others and certainly will affect the states is the fact that no [inaudible] people get their knowledge of radiation from a [inaudible] write them a letter that says do we know what they're talking about.

So my question to you is what is your [inaudible] from Congress, what are your connections to Congress? Are you asked by Congress for information and how do you do that?

MR. RYAN: Actually, the history of NCRP's interaction with Congress has been very little, and I think that's an area of weakness and one of those really important folks who was on the committee was Gilda Plank, obviously, a former Commissioner of the NRC, and I think part of the recommendation was to engage in the process on government [inaudible] Congressional needs and information needs, was to explore [inaudible] collaborative avenues that NCRP needs to take on.

So as of this point in time, no, not much. [Inaudible] NCRD address this in the future, yes, it should.

Now, again, the risk is you don't want to become a [inaudible] organization [inaudible] scientific information in the information flow for Congress and staff and so forth.

So that's something that's started of late, but needs a lot more attention.

COMMISSIONER DICUS: [Inaudible] setting up to be a lobbyist organization. Of course, the NRC cannot be promotional, but giving correct information --

MR. RYAN: Exactly.

COMMISSIONER DICUS: [Inaudible] what we know, what we've done.

MR. RYAN: I think that's good advice and something that is one of the elements of our plan.

MR. CAMERON: Ed Bailey.

MR. BAILEY: Mike, you mentioned the decrease in funding and so forth. As we move toward the national materials program, I think one of the things that may come about is that with decreased funding in NRC or whatever, that also sets the opportunity [inaudible.]

What is the -- my question now. What is the typical or average or whatever range of costs to the NCRP [inaudible.]

MR. RYAN: Too extensive. It's currently an

expensive process. [Inaudible] something in the $300,000 range. One of the key areas in our strategic implementation program is to look at those processes, one, to make it more timely, which will, two, make them less expensive.

I mean, it's very important to recognize that the [inaudible.] Much more focused are the [inaudible] will be much more efficient.

It's interesting to note that none of the members of the writing group get paid. It's strictly travel and then report production. Both of those specific business matters are [inaudible] the report, but actually look at report production and publishing as an issue and to look at [inaudible] that process.

I think we'd like to see it be a much lower level than it is today.

MR. CAMERON: Anybody else out here in the audience have a comment on any of those questions or anything else? Anybody else at the table have any questions for Mike? Ed?

SPEAKER: [Inaudible] topics that really need to be addressed when you get back home [inaudible.]

And you think about this [inaudible] things to be covered, such as the X-ray shielding [inaudible] very

important. [Inaudible.] And I'll be happy to call [inaudible.]

SPEAKER: Sure.

SPEAKER: So whatever we can do, I think maybe when you get back and talk to your staff and say what do you really need, Mike mentioned DNB [inaudible.] There's a lot of us that are sort of uncomfortable with the open-endedness of the present guidance on DNB.

SPEAKER: One of the best-selling documents of NCRP in the NCRP's recent history was the screening document, the screening modeling that John Telford did got sold out twice.

So it's clear to us [inaudible] implementation guidance seem to be very helpful.

Let me review two points. One, many of you have participated in surveys already for NCRP. Hopefully, many more of you will think and give us some additional info. For that, I give you thanks and appreciation. Many folks have been supportive of NCRP during this [inaudible] process and that's been terrific and I appreciate it very much.

The second, I'd like to just borrow ten seconds and answer Ray's comments. As editor in chief of the Health Physics Journal, I want to encourage all of you to please send

in your articles and submissions for publication.

It's a great way to communicate with your peers and it's a great way to have [inaudible] reference information [inaudible] in your program.

[Inaudible] supplemented the Health Physics Journal, which is a very classical, very much [inaudible] program, sort of a publication that produces all the [inaudible] problems and none so simple that you deal with every day, and a lot of good publications.

We now have a few articles ready to publish that go past the journal that's currently in progress. So we're now seeing a lot of submissions for that stuff and it's very positive.

One that we published at [inaudible] university was to look at and actually measure [inaudible] released to [inaudible.] So you see some realistic information and data on that question of [inaudible] a few months ago.

So, again, I thank you for your time and attention and input, and I appreciate being here very much.

MR. CAMERON: Thank you, Mike.

[Applause.]

MR. CAMERON: -- to give the national materials

working group here your input for the tabletop, and I think Kathy and Bob are going to be coming around to talk to you about that right now and then we can get out of here for lunch.

But I'm going to turn it over to Ed right now.

MR. BAILEY: Before we break for lunch, I'd just like to express my appreciation to Ray and Mike for taking time out of their busy schedules to come and address us.

[Inaudible] volunteer service, so if you get a chance, please thank them. And we look forward, or I do, to continuing interactions between both NRC and NCRP at future meetings.

And with that, we shall recess for lunch, scheduled to be back at 1:00.

[Whereupon, the meeting was recessed, to reconvene this same day at 1:00 p.m.]

AFTERNOON SESSION

MR. CAMERON: -- all of you that we're putting in the parking lot, and I would especially want to call NRC staff attention to this issue, because I think we're going to ask you to address it when we get to the medical rule presentation.

This is the Health and Human Services final rule, 45 CFR Part 61, on the obligations of Federal agencies, agreement states, non-agreement states, to report what are called final adverse actions under the HHS rule to the HHS, so that they can put it in their data bank.

And we'll go in and explain more about this, find out more about this tomorrow, hopefully, but I just wanted to note that, particularly for the NRC staff, because I think that we're probably going to rely on them to maybe give us a better explanation than we might have now.

Our first presentation is Bob Emory, from the University of Texas, and Bob was with us in Austin last year to talk about a study that he and his colleagues were doing on root causes of notice of notices of violations and he's back to give us an update on it. So I'll turn it over to Bob, and he's going to try to give us a condensed presentation, so that you all have time to interact with him.

MR. EMORY: Thanks very much. Can you hear me in the back with this, is it up high enough? No, you can't hear.

I appreciate the opportunity to be back here today to talk about a continuation of the study that we were performing last year.

Those of you who were here about a year ago received a handsome copy of our Texas Compliance Almanac, and if you remember -- probably the only thing you remember about the presentation was that we asked if we could get a picture of everybody, so that my boss wouldn't eat me alive for burning out three color copiers to make this thing.

I just wanted to let you know that you all may be made it into print. The newsletter for the [inaudible] Southwest Center has a photo, a photograph that made it to the publisher with a picture of us sitting in front of all of you, with Ed Bailey holding his fingers up behind my head like this. Ed holds the banner high.

Last year was a tag team match with myself and Mike Charlton. Mike Charlton is now Director of Environmental Health and Safety at our [inaudible] in San Antonio, and he sends his best regards. He was unable to make it, so he asked for me to field any of the tough questions for him.

In addition, I need to recognize two other colleagues that work on this project. [Inaudible] and Mike Hernandez [inaudible.]

What I would like to do today is four things. I would like to reemphasize to you how stakeholders really evaluate how radiation safety programs are doing. I want to objectively identify the common violations that are issued to permit holders in Texas, and we'll limit that discussion to licensees, although we have the data for registrants, as well.

I think I will be able to demonstrate to you how this data can be put to use for prevention by identifying the root causes of these violations, and, in fact, it will serve as an independent validation for something all of you intuitively know, but it sure will be nice to able to say, kind of like a toothpaste commercial, the university study said or verified.

And then I'm going to make an offer you can't refuse. Now, at this point, everybody says, wait a minute, did you bring along a cool ice chest like you brought last time, and gosh darnit, no. We're out of ice chests. [Inaudible.]

As a brief review, if anyone takes an advantage of that, you will realize that there are two ways that one can evaluate the outcome of a program. You can use systemic

measures and, in the health and safety business, systemic outcomes are those measures of ultimate program performance in the traditional health and safety realm.

That's the body counts, the number of workplace injury doses or fatalities, that's the stuff that's reported on that OSHA-200 law.

There's a whole other set of indicators that are called organic indicators and these are precursors to this ultimate outcome. A lot of work in quality assurance focuses on organic indicators.

In our business, because we don't have a lot of systemic indicators that we can put our fingers on, we necessarily have to rely on organic indicators, and those would be the number of unsafe conditions or observations that we make during inspections or our internal evaluations.

A lot of work now being done on behaviors and attitudes or, in fact, whether [inaudible] compliance, and I would argue that most of those are governed on the status of the regulatory compliance.

Now, because I've been around the countryside talking about this violation phenomenon, I wanted to make sure that you understand that I try to always include this caveat to the

regulated community, and that is the public and the radiation safety profession benefit from the compliance inspection process.

And I try to emphasize that to the regulated community, that these words are intended to make permit-holders aware of the common deficiencies, so they can be avoided, but they should not be done to the exclusion of all the other reported safety [inaudible] that should be performed out there.

Sometimes people spend too much time focusing on [inaudible.]

Okay. I'll just recap very quickly. Last year, we showed you we had ten years worth of data for the violations that are issued to licensees in the State of Texas, and it turns out, with the coding system that they have in place there, that if we do an analysis on this, that although there's 50 different violation codes, that the top ten list consistently reflect 65 to 70 percent of all the violations.

In fact, if we were to go down the list, a lot of that stuff is rocket science, nor does any of it require a certified health physicist or professional engineer to address.

These are simple things, like making sure you have a radiation protection program, doing your surveys and testing,

on and on and on.

But in our training, we find that the RSOs are very welcoming to find out about this information, because they're intimidated by this huge stack of regulations that face them, and they say, no, that these are things that will be focused upon, they can make sure they got their ducks in order.

Now, this is one of my favorite graphs, because you can't read it, and that's the great thing about academics. You just slap it up real quick and then [inaudible.] This is the ten-year period here. Those are those ten violations there. And notice that although the relative position within may change, the top ten are always the top ten.

Now, the reason we picked this figure here is because right in the middle is when 10 CFR 20 was made. Notice there's a big jump over here in procedure, most likely due to radiation protection program requirements, but, nonetheless, you're focusing on these top ten because it's always the same top ten.

Another way you can sort this data is actually by regulatory citation, and this is the Texas Administrative Code citation and then the same thing shapes out. It turns out that this is data from 1999, but here we have a listing of the top five and that accounts for 60 percent of all the violations

issued.

Again, we're doing training or perhaps going out and doing [inaudible] activities, that we can focus on these top citations, people know where to focus their activities.

We can break it out by severity and the good news here is that most of the violations issued are of low severity, low severity being severity level five and four, and that represents about 78 percent of all the violations issued in the State of Texas.

Now, we get into the educational value. Why is this of any use to anyone? Well, I have a couple of compelling graphs. This graph here shows the overall number of incidents reported in the State of Texas for the last ten years.

You will see that there was a dramatic decrease in those things and then the blue line indicates the number of overexposures during that same ten-year period. You can see the major driver of the total number of incidents was overexposure.

And that decrease did not come from all of a sudden people started reading the latest edition of the Health Physics Journal and implementing [inaudible] and shielding. In fact, the dramatic decrease came from a change in the regulations,

thus eliminating the quarterly dose limits, and here we see a dramatic decrease in number of reported overexposures for this time period.

Conversely, if you go to the next draft, here is misadministration and dose irregularities. Now, you guys know better than myself that there's been some definition changes and the like and you'll notice there's a flip-flop in that line, the blue line and the purple line, an overall increase in reported events associated with misadministration and dose irregularities.

Now, there's all sorts of ways to interpret this and we're still working on this project here, but the point being that misadministrations, as they are defined, have gone down dramatically.

The reporting mechanism that's in place has driven up the number of dose irregularities that are being reported. That is not to say that the [inaudible] the reporting phenomena much more than [inaudible.] All of that's important educational information.

If we go to the next slide, this pie chart shows all the different radionuclides that can be used to inject in people. It's not surprising that of all those incidents that

were reflected in the last graph, 73 percent were associated with technetium-99M. Why is that? Go to the next graph, of all the things that can go wrong, what if you inject the wrong radionuclide, the wrong patient, or do the wrong study, the compound, the labeling compound seems to be the root cause of the problem.

The technetium can come in different flavors and if we can come up with some way to clarify those different flavors, then maybe we can reduce the overall number of these incidents.

So I hope you begin to see a little bit of the glimmer of where there might be some educational value in having this data collected and studied.

Now, what really piqued my interest, after working on this project, is that I began to realize that there is a cost incurred by this, because there is a cost incurred by the regulatory authorities, because every time a violation is issued, one has to process it and then it kicks into the legal realm, if you will, eventually, in some cases.

There is also an equal or perhaps greater cost borne by the regulated community. I don't think we can catch that, but we did working on what the cost would be to the regulator.

So what we did is the working group of the Bureau of Radiation Control, we established a baseline [inaudible] and then quantified the added cost to issue a subsequent resolved notice of violation. WE felt that if we could quantify that cost, that could be used as a justification to educate [inaudible] the number of penalties that are issued without affecting safety or the compliance and testing process in any way.

So if we go on to the next graph, lo and behold, [inaudible] if the correlation doesn't work, you move the data points around a little bit. But we didn't have to do that here. It actually fell out quite nicely.

But here's the number of penalties issued and here's the administrative extra cost that's associated with issuing and resolving those violations. It's a nice correlation. And hence suggests that if we were to set as an educational goal, that through education, let's reduce the number of penalties that need to be issued by ten percent, this would be the equivalent amount of money that would be freed up that then could be targeted toward other pressing areas that we have within our organizations.

I'm so delighted that there's so many representatives

from the Nuclear Regulatory Commission here today, because one of the reasons I'm here is that I wanted to make sure that I marketed the unit that we named after this, which is the Emory unit, which is the dollars saved [inaudible] at standard temperature and pressure.

Now, [inaudible] over a year for this to be called a special [inaudible] definition portion of 10 CFR 20 and I guess I'll need to talk with the Commissioner later about that.

Okay. Now, that's kind of a recap of what we did before. Now, let me tell you what we've done since the last time we met.

We noticed the different types of violations that are issued and there seemed to be a common trend there. The next step is really to ask the question, why, what was causing these violations to be issued.

So let's take the third most common violation issued in the State of Texas, and that's a sealed source link test. What can go wrong? The problem is you either do it or you never did it. You never did it ever or you didn't do at the prescribed frequency.

The timeframe for that frequency is either a regulatory limit or built into your license as a permit

condition. It could be that the documentation is incomplete or, in fact, it was found leaking, which is not a violation, but you didn't do the subsequent actions correctly that you're supposed to.

Here, we can [inaudible] to categorize these root causes as either a failure to execute, a frequency based issue, violation of a reg or permit condition, or the [inaudible] issue or the appropriate actions.

How many people here are familiar with a safety science technique called fault tree analysis? But once you start mapping this out, you, in fact, can map this thing out. So if you flip on the next one here, here is the fault tree analysis, with all the appropriate [inaudible] and all this other stuff that goes with it for a sealed source leak test violation.

Now, all I want you to notice here is this side is the same as this side and now we're going to blow up this section. Here is violation of the regulation. What happened to that fault tree analysis? It could be that someone didn't do the task, which would be failure to execute, they didn't document it, either it was performed without documented, or it was performed, but not fully documented, and that's the

[inaudible] in here.

The frequency is in here and then action. They found it leaking, they didn't take it out of service, or perhaps they didn't report it.

So what we decide to do is to use these events as our basis for the root cause analysis. We obtained access to the Bureau of Radiation Control inspection files for the year 1999 for the licensee. They were gracious enough to identify us as a benign party, which I think is good. And we set up a sampling strategy, a statistically appropriate sampling strategy, went through and got the violations, quoted them, but then also quoted them with these root causes applied to it, and that moves on to the next slide.

So what did we find out? Well, what's interesting is that all of the blue indicates that it was either the sole or the contributing case that the reason that violation was issued was failure to execute. The people didn't do what they were supposed to do.

Now, in some cases, there may be an additional cause that was tied in to these letters that were sent out, but 93 percent of all the letters that went out for NOV were failure to execute.

Now, all of you sitting around this table are going, I knew that, but what's amazing is that the regulated community doesn't realize that and put yourself in their shoes. They get the permit, they go through all the application process, they're so happy when that thing shows up in the mail, they slap it in an envelope and they see that big stack of regulations and they have no idea where to even start there.

So they don't even know what it is they're supposed to do, which is kind of interesting. So this is kind of compelling information. It is that 93 percent of all the violations, the identified root cause as per BRC records are failure to execute.

Okay. So what are the implications of this? Well, consider these findings within the context of the regulator's common plea, which is read your permit. Do the permit-holders really know what they're supposed to do? In fact, after we did this whole project, it kind of dawned on me that this is why VCRs flash with 12 on them.

Many people, all they really wanted to do was to tape something. They open up the box, they plug it in, and off they go and it flashes 12, because they never read the directions to figure out how to set the clock.

And I think that's pretty much what we're doing. We've got a lot of RSOs out there with the number 12 flashing.

What can be done to improve compliance? Well, I think one idea might be to create easily digestible summaries of the requirements inherent to the purpose and then tie it to the regulations, as well. It may be that we need to modify the way RSOs are trained, and there were some comments about the challenges that RSOs face, before lunch.

And then, also, it might be a possibility to restructure the permit inspection process, because if we get this squared away and a lot of people's paperwork could be submitted electronically, if the paperwork is not in place, that may trigger on-site evaluations, and all of you are faced with battles associated with finite resources, and this might be something worth considering.

The reason I'm here today is to ask the next question, and I'm so happy that there was a talk this morning about this unique program about the now 30-some-odd states that are now agreement states.

The next question for me is are the trends here consistent across the country? Are their root causes consistent? And could there be some basic simple

interventions?

I would contend that if this organization begins starting the process of putting this data together now, this would be a very key feature to include in this national materials program to show what the outcomes are and to make sure you have a coordinated effort to put interventions in place to reduce those outcomes.

Go on to the next slide.

My proposal, the proposal that you can't turn down, to facilitate the comparisons, here's the deal. I brought, unfortunately, not enough, but this is actually, with permission of the Bureau of Radiation Control, sitting in front of each of the members up here at the table, and I'll get copies for anybody else, if they'd like, this is the copy of the coding sheet.

Down the left-hand column is the violation codes that are used by the Bureau of Radiation Control, front and back, for the NOVs issued for licensees of radioactive material.

Then to the right-hand side are all of those root causes which we've identified.

We would argue that if you were to take this home and think about it for a little bit, if you were willing to do so,

if you could tell us the number of licensees and the average number of NOVs that are issued per permit inspection, we can then provide you back with a statistically valid sampling strategy and sampling methodology for the collection of the data for each of your states.

Then all you have to do is then follow that sampling strategy and complete one of these forms for each one of the NOVs. Then you send it back to us and then we -- notice I put "we," that's the royal sense, then I turn it over to a grad student.

But the grad student will then summarize and analyze this data for their respective research project. Then we give the information back to you and then we can start looking at doing some comparisons across the country, which I think would be very compelling information.

So you've got the form in front of you and we'll have time to ask questions later. I'll be happy to give everybody a card, but I think this is the next step in the process.

Last, but not least, I think like any good marriage, the spouse can't just walk around saying, oh, well, he or she knows I love him. You need to say it and you need to say it often. And one of the pitfalls I see in this business is we

don't say it enough to the regulated community that we're both on the same pool. We both have the same objectives. We both want to preserve the health and well being of our constituents.

I would argue that if we remind people that we're all in the same ballpark, it's a good idea. By any measure, the radiation safety record is excellent. Look at it compared to any other health and safety program in this country. The radiation safety business does a very good job and you should be proud of what you're doing.

This success is due in part to the inspection process. Love it or hate it, it benefits all of us. NOV outcome data, I think, can be very valuable for prevention and I think it's a very good value-added tool that you can provide back to your constituents to help them minimize costs associated with using the materials.

And then I think what we have to do is constantly emphasize this common goal and then work together to achieve it.

The last slide is some copies of some articles that were written on this. I actually brought some copies up here, if you're interested. But that's the last of my prepared remarks. I'll be happy to answer any questions or comments

that you may have.

MR. CAMERON: Thanks a lot, Bob. Any questions or comments for Bob about this study? And I think he would be particularly interested in hearing from people about the proposal that he put forward. Anybody want to start us off on that? Roland. Roland Fletcher, Maryland.

MR. FLETCHER: Roland Fletcher, State of Maryland. I don't know how many other states do it, but we have a program whereby when a license is initially issued, we actually visit the facility and ensure that what is in the license and everyone is conforming to what they need to be doing.

The problems seem to come in once that first RSO moves on to greener pastures and the next RSO comes in. And I think -- I don't know how many other states find that problem.

MR. EMORY: It's like the used car salesman who says I sold the car, they just didn't buy it. We go out and attempt to educate, but, in fact, due to a dynamic situation or people just hiding their heads because they want you to leave, I think the message isn't getting all the way through.

MR. CAMERON: Other comments? Ed?

SPEAKER: Just a point of information. When you're talking about a sampling set, how large are you talking?

EMORY: I actually brought the numbers from Texas, so we can apply those to the upper 49 after that.

There are approximately 1,500 licensees of radioactive materials in the State of Texas. We used a one-in-six sampling strategy, which meant that it went down every sixth one.

We got a printout of all the inspections that occurred for a year and went down every sixth one. There's a number of reasons why we did that. That resulted in a selection of 85 files or 85 inspections which represented a total of about 180 NOVs.

Now, Texas is a huge program, so you can scale it back. I don't know what the average number of licensees you have in each one of your states, but just a ballpark figure, without doing the math.

If you have perhaps 50 or less licensees, the best thing to do would be to move on, because when you sit down with this form, [inaudible.] If you have over 50, you can sit down and do some math and make sure that we get a representative sample.

I did not have time to show the slide, but I can assure you that our sampling strategy was representative

because the top ten that came up in that sample were identical to the top ten in the order of the other ones, as well. So we were right on target there.

MR. CAMERON: Bob, a process point. On your proposal to the Organization of Agreement States, would you need back from either the Organization of Agreement States or individual states, for your proposal to be "accepted?" I mean, what needs to be done on that?

MR. EMORY: Any studies that we perform at our own institution, and you're probably aware of the increased [inaudible] organization that was called OTRR, [inaudible] and doing research studies and also includes human-provided data, which is [inaudible] data.

So what we need is just a letter on letterhead saying here is our data, you're welcome to do some evaluations on it. We don't want to know about the individual permit-holder. All we want to know is the summary of data.

And the way we work it with the bureau is that we put the data together, we go back and meet with them, we go over it. Anything that we wrote up, we brought to the bureau and made sure we were all singing from the same songbook.

Again, our next step in the project is to see if what

is happening in Texas is true across the country and if so, what can we do to prevent it, because there's only so much money that can be put into public health and I'm sure we'd like to make sure we use it right.

MR. CAMERON: But you wouldn't need a response necessarily from all 30 agreement states, although that would be -- in the NRC, that would be better. But as long as some states send it back, that would be useful.

MR. EMORY: Yes. And I'll be around this evening, as well, so I'll be happy to give anybody who needs it a card and talk to you further about this. But if we can get four or five states, that would be idea. That would be four or five [inaudible] and one happy faculty member going for a promotion [inaudible.]

MR. CAMERON: Ed Bailey.

MR. BAILEY: Just for information, and I don't know who can answer this question, are the identified root causes on this sheet similar or identical to the ones that are caught in the NRC root cause investigation, or whatever it's called? I haven't been [inaudible.]

MR. CAMERON: Anybody from the NRC who can answer that?

MR. BAILEY: [Inaudible.] I'm afraid we'll all non-workers and --

MR. CAMERON: Paul?

MR. LOHAUS: Paul Lohaus. I don't have an answer, but we can certainly get one. I don't know if there's anyone else here, Don possibly, you may know, but we can certainly look into that.

MR. CAMERON: I'll put it up as an action item for us here. Bill, and then Aubrey?

MR. DUNDULIS: Aubrey was first.

MR. CAMERON: Go ahead, Aubrey.

MR. GODWIN: I was just curious how the top ten compared to [inaudible] the licensees or registrants.

MR. EMORY: Actually, I've got --

MR. GODWIN: Except for leak tests.

MR. EMORY: It's pretty much the same stuff, but the top ten is even more compelling, because there's over 180 different violation codes that can be issued to the registrants and the top ten reflects almost 80 percent of the violations.

So it's the things that you and I can intuitively make, they were missing radiation inspection programs or the written program, time and temperature, correcting charge, those

kinds of things. [Inaudible.]

SPEAKER: [Inaudible.]

MR. CAMERON: Bill?

MR. DUNDULIS: Bill Dundulis, Rhode Island. One thing, and I don't know how this would mess up your statistics, but some of the bigger states, like Texas and Ed's shop in California, they have a very diverse population on inspections that were done.

I think Rhode Island, the last time I checked, we had about 70-odd licenses and other than some hospitals and some universities and a couple of manufacturers, the rest are basically like industrial gauge licenses that we may not do every year and maybe every four or five years.

So when you get into some of the smaller state programs, I don't know what -- you know, if you're going to be able to generalize, because a lot of it might be governed by what they had the time and manpower to inspect that year and maybe a small absolute number and it may happen that this year, all we did was hospitals and that may not reflect industrial radiography and so forth.

MR. EMORY: It's interesting you mention that, because up in the upper right-hand corner, we've got the

license type categorization of existing [inaudible.] But when we first did this study, we attempted to segregate by license type and the top never changed. It was always the same stuff.

But that was reassuring as far as our goal being an educational tool, regardless of your setting, these were the common things.

Another common point that's brought up when I go talk to the regulated community or the academic community, they argue, well, this is just reflective of inspector bias and my response is that's absolutely right, that's what I want to know.

As a permit-holder, I want to know what they're going to be focusing on, so I can make sure I got my ducks in a row there. There's nothing wrong with that. So some of the academic folks go ballistic. They go into apoplexy over that about selected bias and all this stuff, but, in fact, I think that's interesting to note.

MR. CAMERON: Anybody in the audience that has a question for Bob, or a comment? Go ahead, Ed.

MR. BAILEY: I think one thing that I failed to do after last year's meeting was -- this is just a reminder. We're developing an IP system and we need to look for capturing

this kind of information in a fairly uniform format if we're going to compare apples to kiwifruit or something.

So states might want to look at this and see how they're going to -- what they're and the NRC might want to look at it, too, and see how it fits in. And then assuming that Texas doesn't have a veto right over the categories.

So we might want to look at that and, in fact, probably ought to set up some sort of committee to sort of -- or something to [inaudible] these categories and see if we think they're appropriate.

I mean, some of these cover a multitude of [inaudible.] So that's not all bad.

MR. CAMERON: All right. Well, thank you very much, Bob.

MR. EMORY: Thank you.

[Applause.]

MR. CAMERON: All right. We have a panel that's going to cover decommissioning and we have John Greeves, from the NRC, Larry Camper, Ruth McBurney from Texas, and either Terry Frazee and/or John Erickson from the State of Washington.

And I think the way this will work most efficiently is to go through each panelist and then turn it over for

questions and then bring the other panelist up. And we should have room, Ruth, for you up here somewhere. Okay? And our first presentation of issues, including the big picture overview, is John Greeves, who is the Division Director of the NRC's division where decommissioning and a number of other activities take place.

John?

MR. GREEVES: Thank you. How is this coming across? Can you hear me? Is that a yes back there?

First, let me apologize a little bit for this presentation. I'd like to tell you I'd be a lot better if I hadn't have gone to Hank's last night for seafood. But by the way, it was terrific over there. So I would highly recommend that.

For those of you who missed it, the pecan pie was wonderful. [Inaudible] to my presentation, blame it on that.

What I want to do is give you an overview of the decommissioning process from my vantage point, from the Nuclear Regulatory Commission, talk about what we've done over there in a number of years.

I also want to go into a standard, there's been discussion of setting standards here today and I call it

seeking finality.

The third topic I want to address is the assured isolation topic that's been coming up in some of your states. And I'm going to end with kind of a list of challenges that Larry Camper and I [inaudible] in terms of what's out there.

I would like to just report on the agenda. It says tomorrow I'm going to be talking about FUSRAP, and, unfortunately, I won't be able to do that. Jim Kennedy is with us and Jim will take that spot. I thought I got that [inaudible.] He will do [inaudible] my spot on FUSRAP and Dr. Paperiello I'm sure will be happy to chime in on that, so that will be well covered.

Next slide, please.

Just kind of an overview of what's been going on in the decommissioning arena. For about the last decade, we've been getting regulations in place. Started with the 1988 decommissioning rule. Unfortunately, it didn't go far enough. Really, it only introduced the concept of unrestricted release and it didn't tell you what that was, but it did include a lot of information on financial assurance, which the agreement states have come along and adopted.

Since that timeframe, we've also gotten in place a regulation

on record-keeping, timeliness of decommissioning. I think these have all helped put some discipline in the decommissioning process.

In '94, the General Accounting Office came out with a study and asked a lot of questions about, well, what is the standard and how do you get to a final position. A number of you were familiar with that.

As part of the effort over the last decade, the NRC began in '94 the effort on the enhanced participatory rulemaking to set a standard for decommissioning. That standard actually, after a lot of stakeholder involvement and dialogue with the states, was -- a notice was put in place in the 1997 license termination rule.

Unfortunately, we lacked consensus with the Environmental Protection Agency at that point in time.

A recent milestone that many of you may be familiar with was a set of reports recently and they documented the continuing disagreement in terms of where the agencies are on this topic.

One of the topics they went into was not the standard [inaudible] that some of you are familiar with, and so I probably don't need to say a lot more about that.

I will give some background on where we are in terms of finality.

Let's go to the next slide. I don't know how much people are familiar with this, but upon the completion of that NSC standard in '97, the agency then Chairman Jackson sent a letter to Administrative Browner, with a draft MOU, to try and reach some agreement on how to proceed on these sites.

There were also several house reports in the past couple of years, the first of which was in '99, where the house report recognized that the NRC standards and regulations fully protect public health and safety and encouraged the Environmental Protection Agency to defer to the NRC on these site [inaudible.]

They also went on to encourage us to finish the process and [inaudible] memorandum of understanding and they also requested both agencies to report in May of this year.

Both agencies did provide a report and the [inaudible] and once again, it was left with the information that they were still concerned, based on the reports that they had received, they stressed that the Environmental Protection Agency should defer to the Nuclear Regulatory Commission and, in their minds, this problems is obviously not resolved.

So what they did was they directed the Administrator of the Environmental Protection Agency to report on the status of the MOU, [inaudible] both agencies looking at these sites, identify some options. It is a regulation, is it legislation, is it something else? And that report is due March 31st of next year.

As far as the current status, the MOU is still in play, but there is no closure yet. That's something I really can't go any further than that, but to let you know where it is at this point in time.

Let's move on to the [inaudible] standards. I think all of you in the room are quite familiar with NRC's requirements [inaudible] in license termination rule, the '97 rule. It is consistent with the ICRP recommendations, the NCRP recommendations, also the Health Physics Society position that came out in August lines up with this sort of top-down approach.

And it's in use today. Larry Camper and his staff are using this to evaluate sites and to release sites.

When you look at the [inaudible,] when I go to meetings, I have to also address the questions, the EPA guidance. EPA has no general equivocal standards. They

couldn't put out [inaudible] standards for decommissioning and NRC would have to comply with those.

This is not fair. What they do is reference their CERCLA guidance, the so-called bottom-up approach, and it creates a lot of questions that I have to address and other agencies, also, and [inaudible] working with your licensees.

The last item on the chart, there was some discussion earlier this morning about standards. This is your opportunity, the states are to have put in place their own set of standards. They can adopt a license termination rule or they can be more restrictive.

I've seen some results that are right in line with the license termination rule that the Commission has. I've seen others that use numbers like ten millirem, all pathways, four millirem, ground water.

And it's my understanding that those are due this year. I've asked a question to understand if states have something in place, and I'd like to tag an action item. I'd like to know where you are on putting these standards in place. I have a need to know. I get a lot of questions from stakeholders, well, what's the state of X doing.

And I would contend that you have a need to know,

also. If you have a different standard, you're going to have to answer questions about that.

So I would challenge us to pull together and let's get this list, where are [inaudible] states in this case and which ones have a more restrictive approach.

Larry Camper is going to talk about [inaudible.] All of our guidance is put in place for 25 millirem all pathways. It is not a trivial exercise to revise that for a more restrictive approach. It's complicated [inaudible] some problems and I just would like to enter that clearly. So if there's a way we can help you, we want to know where you are and [inaudible.]

Next. Kind of an emerging issue that comes up in a number of meetings that I go through around the country. The topic is assured isolation. There is no regulation in our space for this. The study came down, I believe, in Texas, other places, [inaudible]. But whatever this is, obviously, it's key to public health and safety.

So when you bring that forward, we need, collectively, the regulators need to be able to explain how does this address public health and safety issues.

We need a regulatory framework. It's not there, that

I know of. There is [inaudible,] what is the regulatory framework.

Essentially, you have to explain that to the stakeholders and build public confidence [inaudible.] What I do, we don't have a lot of public confidence in the regulations we have, so as this one comes forward, our job ought to be to be able to explain that and increase public confidence.

We'd like to provide assistance to the states regarding this in an efficient and effective manner. I'm not quite sure how to do that. Maybe a meeting like this [inaudible.] So I'd appreciate hearing from you.

The last item on the chart is the implementation of the Low Level Waste Policy Act. We know how successful that's been. But if you bring forward an assured isolation approach, somebody is going to have to answer the question, does this satisfy the Act.

That's just for disposal, and I know there are some various views on that and maybe we can hear some today.

The next topic I want to do is [inaudible] trying to assure the big picture, the challenges in decommissioning space. This is just a partial list. [Inaudible] partial site release.

I don't know how many of you followed this, but Commissioner Freed was talking about parsing off a big chunk of their site and there are some challenges on how you do that in regulatory space, and [inaudible] is talking about that.

[Inaudible] ideally a piece of property, and that's a real good piece of the property. There ought to be some way to [inaudible.]

We've got materials sites that are asking questions about can we separate portions of the sites. For the rule, we have to come forward here, and, as mentioned, [inaudible.] We're looking into it and will probably hear more about that.

Dose modeling. Most of the meetings I go to raise the dose modeling issue and we have a tremendous drive there. We've done a lot of refinement to the RESRAD code, with developments in that, the coordination of the Department of Energy. The D&D code also has been improved significantly and I think a challenge is developing training on how to use these codes.

The theories are simple, but I think developing a training program is a topic that [inaudible] interested in.

The control of solid materials, I'm not going to say much about that, but, again, it's one of the significant

challenges. I don't go to a meeting that people don't talk about where is this, when is going to be put forward, because the licensees certainly need feedback on this topic.

The advisory panels, I don't know how many of you are involved in these. I think there is an excellent format when you've got a difficult site.

Our experience has been some good, some not so good. If you're working an advisory panel, I would very much like to talk to you and share my views and my experience with the challenge.

The last one is attendance is actually an accession, where Trish Holahan is going to talk about that as an emerging issue, and it's sort of [inaudible] trying to sort of what is this. [Inaudible.] I'm not going to say much about it, other than it's one of the challenges that we see.

Just as an aside, I've got about 25 sites involved [inaudible.] If anybody wants to volunteer to take a few of them, [inaudible] doesn't seem to want to [inaudible]

Anybody who gets into this business, I really would like to talk to you and engage you and let you know what our experience is, and Larry Camper will follow-up with kind of the guidance.

MR. CAMERON: John, do you want to take some questions now on the overview? I would suggest that on entombment and clearance, we hold those comments until we get to those sessions and perhaps assured isolation will fit better into the need for questions into the waste disposal panel.

MR. GREEVES: I'm happy to take questions now and I'll be here the rest of the day. Unfortunately, I will not [inaudible.]

MR. CAMERON: And if you see a question that you think Larry is going to address, we can save that for Larry's, too. But any questions for John Greeves? He covered a lot of ground.

SPEAKER: My question is I'd like to know where people are on the standards and I think that would be a valuable piece of information for all of you at the same time. I'll follow-up in the next year's meeting and [inaudible] what that is. There's a question up here.

MR. CAMERON: Go ahead, Alice.

MS. ROGERS: Could I suggest that you just simply [inaudible] RADRAP and everybody will respond within 24 hours.

SPEAKER: Paul is going to do that. Talk Paul into it. [Inaudible.] I'm planting a seed here today.

MR. CAMERON: Well, there is an action item up here to get the status of state cleanup standards and I guess it's the NRC might want to think about what is the best way to get that information out, either from -- Paul, do you want to comment on that? Do you want to sort of stimulate that?

MR. LOHAUS: Paul Lohaus, NRC. Everywhere we do maintain, through our regulation and assessment tracking system, information on each of the states' regulations, the level of detail does not go down to the actual provisions in the rule.

So what I would suggest is either using RADRAP or ONP announcements, we'll provide one or two questions. I guess the first one would be do you have an effective license termination rule in place, and then the second question would be if you do have a rule in place, what are the specific provisions, is it 25 millirem or are you using an alternative [inaudible.]

That rule, as you're aware, it's a category C, which does provide ability to establish a more restrictive standard. I think those would probably be the two questions.

MR. CAMERON: And I guess there were some of the responses that came in from the agreement states in response to the Congressional that we did on the clearance issue did cover

some of these cleanup standards, but we'll look to NRC to take the initiative on getting this information in.

All right. Carl? Carl Paperiello, from the NRC. Let me -- yes, that's not going to work, Paul. I'll give you this one right here.

MR. PAPERIELLO: [Inaudible] I have to be involved with most of the discussions with the EPA and you're going to hear a number of things discussed at this meeting which are related, and that is the total source material.

We know that we're raising this issue, it's been one of my favorite issues for years. We're finally going to work on it. And that is, we wrote an exemption 50 years ago based on national security considerations, not like the source material, [inaudible.]

The problem is when you just look at screening, and the screening numbers we have for decommissioning, that corresponds for uranium and equilibrium with radium a dose of about six rem a year.

That raises the point, if you're decommissioning, somewhere between ten and 100 millirem a year, I won't get into the number, it won't make any difference, I'll give you 500 millirem a year, and if you recognize that when you look at all

these DOE private sites, the ones that were in the USA Today a couple weeks ago, I pulled them out.

Putting aside things like beryllium, these people all handle source material. And so now the question is, I would have to explain to somebody why is it, as long as they never got up to .05 percent, I don't need a license, this is like all over, if I want to clean up, I've got to get all the way down here.

So there's a problem and I think we've recognized it for years, except we haven't done anything about it. Now we're trying to do something about it. So I think that's important.

Related to this is the issue of NORM, NARM and PNORM, because by and large, PNORM and NORM is source material or source material [inaudible] and then one has to say what is the standard for that.

And one has to explain, if you're not going to do anything about it, why is it okay -- why does the -- and this is part of my argument with EPA -- why isn't the American public today going to be given the same level of protection as is being proposed by people ten thousand years from now at Yucca Mountain or in New Mexico.

I'm just laying that out. It's a problem in

consistency in whatever these numbers are, how you're going to explain why these numbers aren't the same.

MR. CAMERON: Thanks, Carl. That consistency issue is an overarching issue that might be discussed at a number of points in the agenda. I would note that at 3:45 tomorrow, there is going to be an opportunity to discuss the Part 40 rulemaking that the NRC is considering and to talk about the source material issue.

We're going to go to Larry Camper now and Larry is the Branch Chief for Decommissioning in John Greeves' division at the NRC, and he is going to talk about -- he's going to cover a number of topics.

Larry?

MR. CAMPER: Good afternoon, thank you, Chip. As John was alluding to, there's a lot going on. Actually, it's 27 material sites and four reactor [inaudible] right now, so a lot.

I do have a handout of my talk. I'm not going to cover every slide in the package. There's a smorgasbord assigned in here, range between guidance, mobilization, decommissioning modes, [inaudible,] restricted release, a lot of stuff.

So obviously we don't have time to handle that, but I'll be around all through the meeting and we can have sideboard discussions, if you'd like to talk through, of questions, I'd be happy to engage you.

On this slide will be the address and the telephone number and, more specifically, my e-mail address, if you want to call up.

Next slide.

We have been developing a lot of guidance over the last three years, since the license termination rule. The guidance is linked to our strategic plan. There are four major goals of the strategic plan, which has been made into a package.

There have been 16 of these guidance documents, in fact, the most recent being our standard review plan. We have also some reviews of the license termination plans at this point and we'll share with you some of the observations [inaudible] for reactors.

A lot of stakeholder involvement along the way; for example, a lot of workshops we conducted in developing the standard review plan.

Give you some idea of how we think it's going in

terms of licensing. Utilizing the guidance, and, finally, work we foresee in the future that we need to do.

Next slide. NUREG-1700 was the guidance document for the reactor license termination plan. We conduct an acceptance review process, whether it be for LTP or for the nuclear plant and materials space. We try to do this 30 days from the time we actually docket the receipt of the LPT and we do it to look at the adequacy of the submission, not the accuracy or the totality of all the information, but whether or not all of the key points are addressed.

We did reject two license termination plans previously, that being from [inaudible.] We have now accepted two, rather than one, as the slide says, but the two are Maine Yankee and Connecticut Yankee.

And then ultimately, in the case of Trojan and [inaudible,] when they came back around, they also passed the acceptance review and now we have four LPTs under review.

Next slide. In terms of why were the acceptance reviews not accepted, why were they rejected the first pass. A site characterization was not sufficiently detailed. There wasn't an adequate description of the extent and nature of radiological contamination, for example. The plant's future

decommissioning activities were specifically not detailed enough.

The plans for the final survey were typically inadequate. They were not along the lines of MARSSIM, if you will, and justification level [inaudible] was not adequate detailed.

Decommissioning costs were not sufficiently detailed. In some cases, we had nothing more than [inaudible] that we got from the SDAR. And there was full supporting justification for some of the [inaudible.]

Now, some of these kinds of findings occur on the materials side of the house, if you will, not just on the reactor side of the house. So particularly [inaudible] characterization.

Next slide. We have the reviews underway at this point in time. So it's a work in progress. We are finding, though, that we are going to have to go back to the licensees, the four LPTs, for additional information. It appears that there are going to be two RAIs and this, to a large degree, is because of site characterization issues and modeling questions.

Reactor license termination plans are not simple documents. They are probably about that thick and [inaudible.]

We'd like to be able to get them through one RAI. We find that to be very difficult. There are fundamental flaws in them, I've already cited what those are. But we're going to try to be very proactive in the license termination, by holding meetings with the licensees just after providing the RAI and before they provide their response to the RAI, to make sure they thoroughly understand what our questions are and what's on our mind, and put together a better response.

Next slide. We did finalize the standard review plans for decommissioning in July. We sent a memo up to the Commission saying that we had completed the document. We were given a great deal of direction by the Commission, and that's [inaudible] of things they wanted to see in that SRP [inaudible] to address all those issues.

Again, this is a very thick document. It was designed for materials licensees. It does have some applicability to reactor licensees, but primarily the decommissioning for materials sites.

I think it will be very useful to you in the agreement states as you examine decommissioning plans prepared by your licensees [inaudible] your licensees, as well.

This document was developed, as I mentioned earlier,

with a great deal of stakeholder input, a lot of input, in fact, from this organization, the CRCPD, the [inaudible] to develop this.

And we think it's the right way to develop a guidance document. It is a bounding document. It's designed for a very complex site. Licensees are to adjust the input, the level and nature of the input, according to the complexity of their particular site, and it does call for a lot of interaction with the licensees and the public beginning early in the process.

This document, we informed the Commission in July that thee staff is going to start using this document in September. The Commission didn't have a problem with that. We are now putting the document in terms of a NUREG and placed on the web. It will be NUREG-1727, when it's available, and we would hope that would be sometime this month.

Also, I provided you an agenda for a workshop that's going to take place actually the 8th and 9th of November, that's what the agenda says, not the 7th and 8th. It's going to be held at the NRC Headquarters. The purpose of the workshop is to familiarize our licensees with the license termination rule, standards of that rule, all the guidance, the process the staff uses in viewing license termination plans,

decommissioning plans.

We want to share with licensees lessons learned to date from the LPTs. We have invited a very interesting cross-section of participants for stakeholder discussion. We've invited representatives from the nuclear power industry, materials industry, NEI, Organization of Agreement States has been invited, as well as a number of intervenors, and particularly intervenors from the northeast that have been very active in attending and raising concern at decommissioning public meetings for reactor license termination plans.

So it promises to be a very interesting discussion. It will be two full days in the auditorium of the NRC Headquarters and we'd love to have you there. [Inaudible] so we invite you to come on down.

Next slide. So how is it going with the guidance? What are we seeing? Well, we're experiencing what I call regulation growth. We've got two new rules on the books, the '96 reactor decommissioning rule, the '97 license termination rule, and as with every rule, whether it be one of our rules or one of yours, [inaudible.] We're seeing that with these two [inaudible.]

I think there has been a timing needs and expectation

[inaudible] if you will. When we put this rule, the license termination rule on the books in '97, the Commission said [inaudible] currently develop all the guidance that you can. I think similarly license termination plans have been planned or initiated prior to the availability of all this guidance.

So I think some of it is mismatched, but that's getting better.

The licensees are gaining experience and we're gaining experience and as I mentioned, we now have four LTP, two were rejected initially, two were acceptable, two came back around, we now have four.

So we're all [inaudible] and I think it's time that [inaudible.]

Some adjustments are needed. We have found some areas in the modeling guidance, some of our guidance and modeling guidance is overly conservative. [Inaudible] and we are working in the Office of Research to make some of those kinds of changes, and it's clearly one of Carl's pet areas. We are working on that aggressively.

So overall, how is it going? I think pretty much [inaudible] given that we have two new rules to implement. It's not bad really and it's getting better on our part and on

the licensees' part.

Next slide. We have some work to do. We have, at this point, some 16, 17, 18 documents that deal with decommissioning. There's a lot of information available for our licensees.

The problem is it's contained in many, many different documents. We are initiating a project now where over the next two years, we will consolidate all of the guidance.

While we are consolidating, we are also struggling. It's not limited to evaluating, to make it is risk-informed and performance-oriented as we can.

We think we've done a good job of getting the guidance out there. Now we want to go back and make sure that we've given the licensees as much flexibility as possible, that [inaudible] performance-oriented as possible [inaudible] risk-informed.

So we're consolidating and doing that type of analysis. Our vision is to have a decommissioning rule, probably three or four volumes, on the shelf [inaudible.]

Two years after the SRP is on the book, we are charged with going back and looking at it and the lessons learned, updating it and making it as user-friendly as

possible.

Along the way in doing all this, we want to try to try to break the barrier as much as possible, industry and NRC and agreement state interaction as we work our way through this guidance.

The guidance consolidation and scrubbing process, we'll follow the process that we used before in our NUREG-1556. There were a number of agreement state participants, managers and staff, in that process. We'd like to bring that kind of expertise to bear again. I think that will be interesting to do, because by that point in time, we'll have a license termination rule or something like the current decommissioning criteria in the regulation.

You will have experiences and observations to bring to bear as well, so that will be helpful to us.

So I want to conclude just by saying that there's a lot going on in decommissioning today. I think John will lead into that.

Our role has a great deal of Commission interest, [inaudible] with the Commission. There is a tremendous amount of industry interest, especially on the reactor side in that decommissioning power plants is an expensive proposition and

the industry is trying to find cost-effective ways to meet the license termination rule, which is a dose-based standard, while [inaudible.]

Mobilization, as I said, I'll be happy to talk to some of you about that [inaudible.] The mobilization standard talks about [inaudible.]

Those are most of the comments I wanted to share with you today. I'll be around [inaudible] if there are questions on the distribution. And in your package that I provided that to you, I did provide information on implementation, but also on [inaudible.]

So with that, I'll conclude.

MR. CAMERON: Thank you, Larry. Larry covered an number of implementation issues. Questions or comments for Larry on any of those topics that he addressed?

SPEAKER: We can't let Larry get by without questions.

MR. CAMERON: I didn't think so.

MR. CAMPER: I knew you were not going to do that.

MR. CAMERON: Ed?

MR. BAILEY: Ed Bailey, California. We are -- well, when I get back in a week or so, we're going to have a public

hearing on the D&B decommissioning rule and we have been -- we know we're going to have one what you term intervenor, a man named Dan Hirsch. Some of the others of you know him.

Would NRC be willing to support states in their public hearings on these regulations and coming and testifying as to how these numbers are derived and the justification and so forth for them?

Because the question, quite frankly, Mr. Hirsch has brought up already is why we do not, California does not step out ahead of NRC and reduce that dose limit down to a ten-to-the-minus-six risk.

And as we heard earlier today, category C compatibility. So, in fact, in my interpretation, we can -- we could go and put it in simply as ten-to-the-minus-six rather than the 25 millirem.

MR. CAMPER: Your first question, can we respond, yes. Please give us some advance warning. We have had, a couple of times, one or two day advanced requests, which created a problem for us. [Inaudible] has responded to those kinds of requests in the past. We'd appreciate a little bit of heads-up.

MR. BAILEY: Okay. You've got it. I just don't know

the date.

MR. CAMPER: The second one was you're thinking of maybe doing ten-to-the-minus-six risk and I'd like to talk to you about that a little more. Ten-to-the-minus-six risk [inaudible] it's going to be very difficult to pin that down. In fact, it's --

People in the room who have worked in the EPA CERCLA approach know this is not a ten-to-the-minus-six approach. It varies by many orders of magnitude and, in fact, exceeds ten-to-the-minus-four.

When we come and talk to those groups, we will tell them what we did, about our rule, and that it is adequate protection of public health and safety. I'd like to talk to you about the ten-to-the-minus-six.

SPEAKER: [Inaudible.]

SPEAKER: Let me just amplify. In our system of public hearings on regulation, quite often, one person standing up and being opposed to something, when it goes to our Office of Administrative Law, there being no testimony to the contrary, they will think it, being primarily lawyers, as gospel and, therefore, suggest that we, in fact, adopt it, because no one was opposed to it being adopted.

SPEAKER: You are well aware now, with ICRP recommendations that just came out recently in that range, maybe one, maybe two, [inaudible] position, but this came out. NRC's rule, the background that we did on the GEIS, all that [inaudible] 25 millirem all pathways and [inaudible.]

SPEAKER: Thank you.

MR. CAMERON: And, John and Larry, I've put an action item up there for the NRC on testimony in support.

SPEAKER: We've done that before.

MR. CAMERON: All right. Aubrey, do you have one comment?

MR. GODWIN: Godwin, Arizona. The problem is that's not in the record and sometimes it takes someone other than the staff to put that into the record. And it's nice to say all these documents are out there, but as far as the lawyers and as [inaudible] concerned, if it wasn't said in that hearing or wasn't written in by somebody, it doesn't exist.

But like some judges do, that do a very narrow reading, and it's very difficult.

SPEAKER: You know what's going on in your state, so you need to create those, document them and get it into the record. Put it in there yourself [inaudible.]

SPEAKER: Ed, on your comment, we have -- I've been in a number of public meetings where we've taken some pretty serious heat as far as why don't you move to the 15 millirem instead of four millirem approach.

So as John is saying, be able to participate and explain the basis for Commission's 25 millirem all pathway, I hope, would enhance public confidence. I think that's what really suffers here with these detailed approaches.

MR. CAMERON: All right. Anybody out here in the audience have questions or comments before we move to Ruth McBurney?

SPEAKER: I want to make, again, an observation. I go back for Ray. Ray, the EPA value for radium, if you take a look at that, is .013 pico curies per gram. We know where that stands relative to natural background.

If you go to this new .gov, great, I finally found the EPA web site for all their records of decision. If you look at their records of decision on radium, it happens to be five pico curies per gram. So essentially what is done is not what is said.

And how we can manipulate, I can understand your problem. This is one where we have to -- as Ben Franklin said,

either we hang together or hang separately.

And I think it's a moot point. We need to support you in your hearings. Other agreement states need to support you in your hearings. We all need to support each other.

MR. CAMERON: And that web site that Carl just mentioned is a new web site that the Federal Government set up that ties together a lot of individual agency and other Federal sites and if you're interested in more on that, we'll get the web site address and put it up there. We'll definitely do that.

SPEAKER: Firstgov.gov.

MR. CAMERON: Firstgov, all one word.

SPEAKER: Yes. One word. Firstgov.gov, and it's [inaudible] all the Federal agencies.

MR. CAMERON: And it's supposedly a super-fast response, right?

SPEAKER: I had no problem with it.

MR. CAMERON: All right. Let's go to Ruth McBurney, and Ruth is going to talk about financial assurance case studies and Ruth is the Division Director of the Division of Licensing and Administration Standards in the Texas Program.

Ruth?

MS. McBURNEY: Thank you. What I'm going to be talking about this afternoon is the money in decommissioning, financial security, what happens when there's not enough, those existing licensees, some of which are approaching bankruptcy, end-of-life situations.

I'm not here to share dirty laundry, but bring about some issues that if you haven't faced in your state, you may in the future.

Most of our licensees that require financial security are pretty straightforward, such as irradiators and [inaudible.] But when you start getting into the decommissioning funding plans, it's not an exact science.

There's a lot of controversy, emotions get involved, and the level of effort that the staff has to put into these is quite high.

We have a lot of opposing forces going on, not only the licensees and us, but also landowners and so forth, and politics get involved.

So if you haven't had some of these situations, tell us how you're avoiding it. It's really been a lot of time-consuming effort in securing some of these facilities and making sure that the state doesn't have to pay for a big

cleanup.

I'm using the Perry Mason type of titles to describe the three situations that I will be talking about. Unfortunately, we don't have Perry Mason to win every case, but hopefully they'll all turn out okay.

The first case I call "The Case of the Missing Management." This is an in situ uranium company that's in decommissioning. The management, which is probably -- there are names on [inaudible] that they've pretty much gone out of the picture.

The type of security we had and still have a part of, it was a trust that was set aside to provide for the decommissioning of the facility, and when we first got it, it was $17 million in that trust for closure of two sites.

Next slide. The [inaudible] the ground water restoration has been completed. This is for a vendor, the Texas Natural Resource Conservation Commission, and they have jurisdiction for the ground water and the flooding and abandonment of the well. That part has been completed.

The surface remediation, however, has not been completed. As a part of this, as this was done, the trust company released money at the direction of the regulatory

agency. So there is now only 1.2 million dollars left in the trust to complete remediation.

As said before, the company is essentially defunct. These are some pictures of one of the sites. You will see piles of rubble. What has happened is they moved a lot of the material from one of the sites over to another site.

So the first site is almost completely remediated, but they just moved the problem over to the other site. We'll go through that and look through these pictures.

Some of our attorneys, who went down there and visited the site [inaudible] made several calls on the material on the second site.

Okay. What has happened thus far is that the company now has no other access, other than what is in this trust. They have told another company, which is essentially one person, that they would give him the rest of what was in the trust if he would remediate the site, do the decommissioning.

So he is essentially trying to get it done as cheaply as possible so he can make a little money on it.

In 1999, we got a letter stating that the sites were clean. We sent down a crew and found that that was not the case at all. There was excess contamination still there.

We got letters from their Washington attorney, saying this is just my mine waste that's still there; therefore, it is NORM. It is not -- so it doesn't have to meet the 515 standard for radium that a uranium facility would.

And we said, no, our rules say that you must meet the 515 standard for radium, since this was a uranium facility.

We also found that there was a possible inappropriate use of the trust fund. They had filed that they had spent money for disposal at one of the Uranium Tailings facilities. We got a letter from Uranium Tailings Company that they had not been paid.

Somehow they were using the money for something else other than for the disposal. So we've done an audit of a lot of the past expenditures and have refused to reimburse them until we see additional progress made in the cleanup.

One of the things in the trust agreement is that we can call in the financial security if we find that the site is abandoned. We thought that the site was abandoned, because no work was being done for a certain length of time. They said, no, it's not abandoned, we've been by there to look at it. We've taken a few samples. We've moved this material over to this other site.

So the company has requested the trustee to release the money to them. The trustee said no, not unless the agency says that it can be released.

TEH, in turn, has asked the trustee to release the funds to TEH, since we thought the site was abandoned. The trustee said no. You must take it to the courts, because of the controversy.

So we have asked for assistance from the Texas Attorney General's office on this case.

Some of the recent activities that we've had with this, in August 2000, company B, the cleanup crew, who is also named on the license as the radiation safety officer, came in with a new attorney and a new proposal to us that if we would release about a third of the remaining trust to them, they would do a little bit of work, remove the concrete, if it was clean and if it was not -- do some testing, and so forth, and then plan to plow in the remainder to get it to 515.

And they gave us a work plan that seemed way out of whack with what actual dollars would do. About -- they were saying give us about 400,000 out of this trust fund and we'll do some of this work. And we said, no, what you're proposing, the amount you're proposing to do is only -- was probably less

than 40,000.

So we were way off from their estimates on what should be done for the money and we wanted the radioactive material removed and sent for disposal.

If they planned to do anything alternative, it's going to take a process or we're really going to have to look at it more carefully.

So we have now referred this whole matter to the Attorney General's office for action against this company and their attorney is continuing now to try to negotiate with the Attorney General's office. So that's where we are with that one.

The second case is what we call "The Case of the Faltering Finances." This is an in situ facility that was operational and, as you know, [inaudible] slowed down. But they were in near bankruptcy. The type of financial security that they have is a bond with a guaranty company, the total amount which is about six million dollars, about four million dollars of which they have -- that the company has in collateral with the bonding company.

The bonds are held by both the Texas Department of Health and the Texas Natural Resources Conservation Commission,

since [inaudible] has the regulatory authority over the underground injection, which is involved in in situ mining, and -- but we hold the bond for the ground water restoration, which is still under the regulatory jurisdiction of the NRC.

This is a picture of one of the facilities that they're planning on remediating. This is what an in situ mining facility looks like.

They came to us in May with a proposal in order to stay in business and continue restoration with a four-pronged agreement that would last for 18 months between the uranium company, the bonding company, Texas Department of Health, and the NRCC.

In this proposal, the bonding company would release collateral back to the company that they could spend for like a quarter of a year on restoration activities.

At the end of that quarter, the Department of Health would reduce the bond dollar for dollar for the amount that they had spent during that quarter.

It would be based on an approved budget. In addition, in order to keep the company in business, or the administrative part of the business, they were receiving -- were to receive additional investment from other outside

stockholders, but it was only if the agreement on the restoration went through.

At the end of the 18 months, we would review then the status of the company and what was going on in the uranium industry, to see if they could still stay in business at that time.

Next slide. The advantages of this proposal are that the company can accomplish restoration more economically. TNRCC [inaudible] has estimated that if we were -- if they were to go bankrupt and call in the bond and the first part of that would be restoration of the ground water and that would be under the TNRCC.

But in order for them to evaluate what was going on, part of that contract, to call in outside contractors to do it, it would cost two to three times as much.

The second advantage is the company could avoid bankruptcy, continue in business, and proceeding with restoration and that restoration could proceed more rapidly.

If we had to stop, call in the bond, it would be a period of time in which nothing would be done, for the state to take over and get the outside contractors to continue with restoration.

Some of the disadvantages, some of the local activist groups and commissioners in the local area, they don't like the company. They would just as soon them go out of business.

And of course, there is a risk that the state is taking in reducing that financial security during the next 18 months, and [inaudible] future for the uranium industry and for the company.

The agreement was signed by TVA and TNRCC on the 15th of September. Since there was a delay in getting some of the language on the bond reduction letter, that was an attachment to the agreement. That was finally agreed to September 28th.

But now we're having to discuss the process over it to understand on the signing and in the meantime, Texas Department of Health received a letter, a commissioner has received a letter from a state senator from the region, asking for a face-to-face meeting with that commissioner. So we [inaudible] and why we believe it's the best route to go.

Under the -- there's now a new local TNRCC inspector that will be going out mores frequently to see that restoration is proceeding expeditiously, and we've agreed to go ahead and reduce the bonds the first quarter while we're waiting for the agreement to go through.

So we're not sure yet, but hopefully we'll get that resolved this week.

The third case is called "The Case of the Reluctant" [inaudible.] This is our licensee with two licenses. One is a waste processing license, one is a [inaudible] license.

And it's hard to forget what the amount is for [inaudible] decommissioning funding plan, since somebody is authorized for atomic numbers three to 83 and [inaudible.]

And three to 83 can include things like iodine-129, which is not comparable, they don't tend to have as much of that as they are authorized for.

The type and the manner of the current security was started with the waste processing license. Currently $133,518. So we asked, when the new decommissioning rules went into effect for other types of licenses, and also we put them in our waste processing licenses, [inaudible] decommissioning funding plan estimate.

And the license first applied under the waste license renewal. In their renewal application they said no security appears to be needed. We said that's all [inaudible.] So they came back in 1997 with an estimate of $155,732, and we said that's not acceptable either.

So in 1998, they came back with another estimate of $304,632 and finally in 1999, they came in with $436,000.

We were asked -- since we got the attorneys involved in this, to give our [inaudible] of business. They were estimating based on what they had on hand at the time. We were basing our estimate on what they were authorized to have, and our estimate came in more like 17 million.

A little more of the history of this, financial security has been applied for waste licenses since 1983, but that was before the NRC and agreement states did the financial security requirement across the board.

In 1990, the license condition required $225,000, but they were to build up funds as they accepted radioactive waste. It never did get built up at the 133,000.

And in 1995, the new financial security rules [inaudible] went into effect. The waste licenses is under time limit. They were issued a notice of violation in 1996 for failure to have the required amount of financial security and a site decommissioning plan.

The company said that they had provided financial assurance and a decommissioning plan. It was not acceptable. We sent them a letter regarding the requirements for financial

security for the manufacturing license and have issued additional notices of violations and escalated those violations that [inaudible] a severity level.

We had a meeting at the facility a couple years ago to discuss the requirements. They did finally revise the decommissioning and financial plan and we found that inadequate.

As I mentioned earlier, they were basing it on what they had, we were basing it on what they were authorized.

In addition, their hourly labor rates were something like $13 an hour and while checking with outside contractors, I think they were charging a little bit more than that for health physics technician work.

They had not submitted any additional financial security. So in December of '98, we referred it to the Attorney General's office and we had another meeting with the licensee, with the AT person, and suggested a tiered approach, that they provide financial security for maybe the amount that they normally have on-hand and then if they want higher authorization, it would go through us [inaudible] financial security.

They did not comply with that request, to change

their license to request that.

So we are preparing a letter to the licensee, this agency [inaudible.] The intent is to propose to deny [inaudible] in the rule and modify the manufacturing license if they don't come back with [inaudible] amount that -- or a proposal to change the license.

Some of the issues involved in this are really difficult to resolve, namely the disputes we have over the funding amount. I was talking with Mike Mobley, who is the head of the Tennessee program, what they require is that rather than the licensee sending in a decommissioning and funding plan, that they actually get [inaudible] third party [inaudible] to resolve some of that, how much they say versus we say, so we don't have to go through and actually do all the research and find out how much it's going to cost.

Another issue is the assumptions that you make when you're doing a decommissioning funding plan. What do you do about [inaudible] receive waste. There's no place for it to go. It's not going to cost anything, so forth.

We did a survey [inaudible.] This is the decommissioning funding plan on what they're authorized and what they have, and those people are saying what they're

authorized [inaudible.] So that helps support our case.

And then accounting for this atomic number of three to 83, as I mentioned earlier, [inaudible.] If you take that into account on this level of politics and really [inaudible] way up.

The other issue, the final issue is the timing and doing cost estimates. Most of our HPs aren't really trained in where to go to get the information that they need [inaudible] with these estimates.

So I guess one way to do that is to actually get a third party that is in the business of it to actually [inaudible.]

One of the other comments I got from one of the other places, that once the funding is called in, that getting -- being able to use that money for outside contractors is really difficult through the state system, because they've had experience with that part of it.

So these are just things to think about and I'll be happy to answer any questions.

MR. CAMERON: Ruth, do you mind if we go to the case of the belly-up bonding?

MS. McBURNEY: No.

MR. CAMERON: And then a quick round of questions for both you and John, since these are all case studies.

This is John Erickson, with some more about financial issues, and John is the Director of the Division of Radiation Protection Program in the State of Washington.

Then we'll have a quick round of questions and set up the break and the poster session for you.

MR. ERICKSON: Good afternoon. I actually just have a couple real quick comments on the belly-up bonding company. But before I do, I thought I would tell you a little bit about Washington's standard-setting role in the last year or two.

We have a 25 millirem standard. We set the standard on April 16 this year. We have the same stakeholder involvement. It was mostly non-controversial. We had a lot of input to say set it at 15. We had comments suggesting ten-to-the-minus-six.

We have a state cleanup regulation that says ten-to-the-minus-five. We considered setting it lower than 25, but under our Governor's order, we would have to do a cost-benefit analysis to show it was getting somewhere by doing it and we knew where that was going to go, so we set the standard at 25.

We're this close to settlement on it. Basically, it will just stand the way it is, with some words and some guidance [inaudible.]

We still use 15 at Hanford. There is no argument from EPA on the 25 or the 15. Our state cleanup organization in Washington is the State Department of Ecology, has had problems and they continuously use ten-to-the-minus-five, but they're also this close to saying, nah, let's go ahead and do it.

So that's kind of where we are on that, where we stand on that.

The belly-up bonding company. My story is really short. It's a uranium milling facility, the early '80s, a young company, just starting out, got a bond from them, the bond crossed out of the [inaudible] market looked a little shaky. We said no problem, Governor, we got a bond. The Secretary of State's Office says fine and dandy, you've got a bond. The company bailed. The bonding company went belly-up.

Nothing we could do to get any of the funds. The bonding company was a New York bonding company. I think we tried to go to the State of New York and squeeze the money out of the state.

We were too far down the list. We had to pay for the decommissioning ourselves.

The good news is the company only manufactured about one barrel of [inaudible.] But it still cost us about a quarter of a million dollars to clean it up and a number of years, mostly done by our staff. End of story.

MR. CAMERON: All right. Thanks, John. I heard some lessons on financial assurance. Do we have questions for either Ruth or John on either individual case studies or generic issues here? Aubrey.

MR. GODWIN: Godwin, Arizona. In the case of Washington, did the bonding company go belly-up before or after the uranium company went belly-up? I want to make sure I've got the order down.

MR. ERICKSON: I think --

MR. GODWIN: You would have had not a prayer to do anything because they were still solvent when you started asking for money, then they declared bankruptcy.

MR. ERICKSON: Right.

MR. GODWIN: Thank you.

MR. CAMERON: Other questions? Yes, Roland.

MR. FLETCHER: Roland Fletcher, Maryland. When you

start looking for those third parties, make sure you get a good list of credentials, because there's not a whole lot of experience out here and be very careful.

MR. CAMERON: Anybody out in the audience? Richard, go ahead.

SPEAKER: One of the questions or what happened also is on the NRC rule where it allows insurance policies, and yet it appears that the insurance is not something that NRC would allow someone to turn in. I need to kind of verify that, because that's a problem we have. They have insurance, but the insurance gets so complicated, the insurance companies don't want to notify before they make changes to the policy.

We've had a real hard time working with them. So it still, in NRC, is an acceptable method of financial security.

MR. CAMERON: Larry, do you want to respond?

SPEAKER: This insurance is [inaudible.] It turns out that [inaudible.] We actually conduct -- as I say, even though [inaudible] regulation, the experience and use of it [inaudible] used in conjunction with or associated with a pre-established trust. [Inaudible.]

MR. CAMERON: All right. Thank you. We're ready to take a break now and I'm going to ask Dennis Sollenberger to

tell us about the NRC poster session, and we're going to try to make up a little bit of time by having a 20 minute break instead of a half-hour break.

I just wanted to take the opportunity to introduce a colleague of mine from the NRC, Brooke Poole. Brooke is with the Office of General Counsel and she is the new attorney on agreement state issues for the NRC.

So you might want to take an opportunity during the break or at the reception to brainwash her -- I mean, introduce yourself and tell her the agreement state perspectives.

Brooke is an excellent attorney and I think she'll be a real resource for both the NRC and the agreement states.

Dennis, do you want to talk about the poster session?

MR. SOLLENBERGER: Just real quick. We have a poster up here on the wall and some literature on the table. What this is, is a number of years ago, we sent some letters out to the states talking about the formerly licensed sites from NRC who worked at Oak Ridge and we were looking at ways to -- one, the Commission said it was an agreement state responsibility to follow-up on these sites, since you had the jurisdiction for regulating these materials in your states, and then we went back and did several papers on the program and the Commission

eventually approved a grant program to assist those states that still had sites to be cleared up.

This is the presentation of the logic on a grant program. We have money in this fiscal year, which started yesterday. It's in the budget, although I haven't heard if Congress has approved our budget yet, in the amount of 1.65 million, and it's a phased grant program and Kevin Shea, who has done a lot of the work putting this together, and myself will be here during the break, for those states that are interested, and we'll walk through the phased grant program that we've developed in this plan.

MR. CAMERON: That's terrific. Dennis and Kevin will be right over here. Let's be back at 3:20 and we'll start out with Trish Holahan.

[Recess.]

MR. CAMERON: We're going to go to what is called other decommissioning issues now, and we have Trish Holahan with us, who is the Branch Chief of the Rulemaking and Guidance Branch, in Don Cool's Division of Industrial and Medical Nuclear Safety.

Trish is going to talk about two issues, entombment and the so-called clearance rule, so-called clearance,

so-called rule, I guess.

I'm going to ask her to cover both of those and then we'll for questions, and then we're going to have a presentation on ISCORS and you don't see John Greeves on your agenda, but John is the co-chair, he's the NRC chair for ISCORS. So he's going to give a little introduction and he'll talk about that.

I'll turn it over to Trish.

MS. HOLAHAN: Thank you, Chip. There is a handout going around, and I apologize if there are not enough. Let me know if you didn't get one and you want one, and we'll make sure that I get one to you.

The other thing is the slides and the handout cover both the two talks today, as well as what we're going to talk about tomorrow.

The first issue that I'm going to talk about is entombment and the next slide says what is entombment. Well, entombment was first discussed in concept in the 1988 decommissioning rule, which John Greeves mentioned earlier, and in that, they addressed some alternatives, which include decon, safe store.

So entombment was considered to be a decommissioning

option in which the radioactive contaminants are encased in a structurally long-lived material, such as concrete, and then the entombment structure is appropriately maintained and surveillance would be continued until the radioactivity decays to such a level that the license could be terminated and the site released for unrestricted release.

I think you heard John mention as to whether or it is it a decommissioning option or is it perhaps another option that's a form of disposal, and that's certainly something that I will entertain any comments on that.

Let me go to the next slide, which talks about the need for a rulemaking action. There are some current requirements and 10 CFR 50.82, which is the regulation for power reactors, under the decommissioning, there are case-specific exemptions during license termination beyond 50 years, and then, also, in the license termination rule, there are still criteria that may be [inaudible] for the certain release scenario.

However, the problems with that or issues associated with is that the requirements are flexible enough [inaudible] scenarios that the licensees would consider worthwhile or viable.

And then, also, all the cases of specific situations require extensive resources. Also, the licensees, in coming in for the case-specific exemption, can't just make a resource argument, but it must be related to health and safety.

When it was considered, it was also assumed that the off-site low level waste disposal option would always be there and [inaudible] costs. So entombment is being considered as an alternative to the low level waste disposal, since that is becoming problematic.

The background for where we are today, and there's been a number of papers over the years, but I'd like to, first of all, in 1999, the staff provided the Commission with a paper that discussed entombment as being a safe and viable option and then they proceeded to hold a public workshop in December of last year, where they were soliciting stakeholder views on the technical basis and issues and options for treating entombment equally with some of the other decommissioning alternatives.

They looked at various regulatory considerations, as well as the technical aspects, concrete performance assessment, the hydrological evaluations and engineering features that would be needed for such a situation.

In June of 2000, the staff had then taken to the Commission,

and, again, this is just one of the NRC terminologies, a SECY paper is a Commission paper, and it was entitled "Workshop Findings on Entombment Options for Decommissioning Power Reactors," and the staff recommendations on further actions.

And in that paper, the staff indicates that it did appear from the workshop that entombment was indeed a viable option. However, it was obvious that there was further public input needed on some of the technical aspects and various options to proceed.

They also recommended that the staff would then develop a rulemaking plan and as part of that rulemaking plan, would have an advance notice of proposed rulemaking to go out to stakeholders trying to address some of these additional questions.

In July, the Commission approved the staff recommendation. So that's where we are today. We're actually developing a rulemaking plan. We are looking at the options and we're still in the very early stages currently.

On the next slide, some of the options that we have to date are, first of all, to maintain the status quo; that is, to do no rulemaking, but continue under the case-specific evaluations. Another one would be to terminate the license,

but amend Part 50 and subpart E of Part 20 in terms of the dose criteria for restricted use scenario.

And a third option would be to retain the license, but under a different -- extending the 60-year period, but actually it would then be -- the licensing entombment would be considered as a storage activity rather than as an active reactor license. And the license would eventually be terminated, but there would still be long-term NRC oversight.

In the first case, there would be -- I'm sorry. The second option, there would be a need under the termination of the license, there would be a need to [inaudible] for the institutional controls.

So as I say, we're still looking at other options, and so I look for your input on that.

Where are we today? Well, as I say, we're developing both the rulemaking plan and that includes the options. It's to provide more flexibility and closure of this issue. Also, to attempt to define the clear delineation of responsibilities for cleanup and mitigation, and yet maintaining public health and safety.

In addition, we've got an advanced notice of proposed rulemaking in draft which addresses some of the regulatory

framework issues, the technical feasibility.

One of the issues that the Commission specifically directed the staff to consider was the viability of including the greater than Class C waste within the entombed structure. So we're going out and asking questions on that aspect, as well as associated issues with regard to the regulatory framework for GPCC.

Also, what are the state responsibilities in line with this.

The next slide. As I indicated, we're working on a draft and we hope to have the draft rulemaking plan and the ANPR out to the states for comment sometime this month. I don't have a specific date, but we are working to get it out to you this month.

The rulemaking plan and the ANPR are due to the Commission in early February of 2001. So we are on a fairly aggressive time schedule to get it out, get comments and resolve and get it up to the Commission.

Following Commission approval of the rulemaking plan, we would propose to publish the ANPR and then based on that, we may end up refining some of the options and come up with a recommended option, so we can go back to the Commission with

where we are.

And then following that, we would look at a proposed rule. Now, about 12 months after comments received on the ANPR, but that could depend on what we need to do in terms of refining our options in the interim. And then if we still proceed down the path of rulemaking, we would then have a final rule, we would hope, 12 months after publication of the proposed rule, or after the end of the comment period on the proposed rule.

That's really sort of a brief overview of where we are and sort of an anticipation for you in terms of seeing a draft rulemaking plan within the next month.

Okay. Let me now continue on to our status of what we're doing with control of solid material, our plans. I think many of you are aware, I think last year, in terms of where we were on the initiative at that time, so this is really more a status of what's going on.

As a reminder, we published an issues paper on the need for rulemaking and what a rulemaking could potentially look like on June 30th of 1999.

Since then, we've held four public meetings in San Francisco, Atlanta, Chicago and Rockville last fall, at which a

number of you attended, and we've also got a web site which we're still maintaining.

And then in March of this year, we provided another SECY paper or Commission paper to the Commission, outlining the results of the public meetings, all the public comments to date, the status of where we were on the technical basis, with a number of recommendations.

And in addition, there was a staff briefing to the Commission, there was also a stakeholder briefing to the Commission in May of this year.

All right. Where are we today? In August, on the next slide, in August, the Commission a staff requirements memorandum providing direction to the staff. As part of the recommendations, the staff had included a recommendation to pursue a contract with the National Academy of Science, which was implementing an earlier Commission direction which we received in March, and I apologize, I'm sort of going back a little bit in the time, to look at alternatives.

And so we did continue with that and, in fact, a contract was issued to the National Academy on August 31. It's anticipated I will take six months to finalize the committee to begin to look at this issue.

In addition, we are continuing to put in place new technical basis contracts to look at inventory costs and surveys.

Just as a summary of what the Commission direction was, in the next slide, the Commission directed us to defer a final decision on whether to proceed with rulemaking until the National Academy completes its look at the regulatory alternatives for this aspect.

And then, also, however, in the meantime, that we would continue to develop technical bases to support the decision-making and that we would also stay informed of the international efforts, along with the efforts of the EPA and the Department of State. And so we are continuing to do that.

And to try and put all this in perspective, this last slide, which hopefully you can all read, I apologize, but that might have come out a little bit larger, this just shows, at the top, the NRC actions. We have the issues paper, the SECY paper, and then the staff requirements memorandum in August.

We have a number of regulatory efforts, to include the decision on rulemaking was deferred and we have an study to look at the alternatives, and then we have a number of technical basis efforts going on.

We are still working to finalize NUREG-1640, which was published as a draft for comment. It's now in technical review by the Center for Nuclear Waste Regulatory Analysis. Also, we are doing some work with the National Agricultural Laboratory on soils, to look at the technical basis there.

We are working to get a new technical basis contract to look at the inventories, the doses and the costs. And the final piece of that is looking at surveys, the contracts through [inaudible] and the Environmental Measurement Laboratory, and the draft report is coming in on that, and we hope to get those published for comments, as well.

So that's really the status of where we are. I'll now entertain any questions.

MR. CAMERON: Any questions for Trish or comments on either entombment or the clearance issue?

John Greeves.

SPEAKER: This topic has generated a lot of interest and we need your feedback on that. I will just mention that the Department of Energy has a number of examples where they're going through an entombment effort and I believe they are going to try and host a workshop in March of next year.

MS. HOLAHAN: They were looking at March, but they

may delay that a little bit in the possibility that we may have an ANPR out on the streets at the same time. So we'll kind of work with them to see about the timing.

SPEAKER: That would be a good time to raise the issue, because that would have a large impact on the agreement states in one way or the other.

MR. CAMERON: Entombment, anybody? Yes, sir.

MR. KIRK: Just an aside. I have been directed not to use the term impolite society in Pennsylvania. That's by the Secretary, Deputy Secretary.

SPEAKER: Give us another term.

MR. KIRK: Bill Kirk. I'm from the Pennsylvania Bureau of Radiation Protection. With the agreement state, I think, as well.

MR. CAMERON: And Bill is going to be on the agenda on Wednesday morning, I believe, on something that they're doing. Greta?

COMMISSIONER DICUS: Greta Dicus, NRC/Arkansas. The question I want to bring out, perhaps it was discussed in the early part of the afternoon and, unfortunately, I had to leave to take care of some other stuff.

But when we talk about whether there's going to be

entombment or what kind of decommissioning issue gets done, there's a decision-making process on the part of the states, whether it's the political body, the utility or the radiation control body, as to what kind of decommissioning will be done, including the fact that it might be entombment.

So I was -- I'm not sure myself whether or not in the document that you're going to send to us you talk about the decision-making process on the part of the states.

MR. CAMERON: Trish, do you want to provide some information to everybody on that?

SPEAKER: We're still deliberating internally on this, but it clearly needs to be flagged. In my mind, this is going to be an issue the state either buys into or it does not buy into. If your utility is going to come to you and say I know what my options are, I can decommission, take it all away, Greenfield, and hopefully send it to a disposal facility, do I, in this state, have another option.

So each of you are going to, I think, need to answer that question. You don't have to all give the same answer. It's going to get flagged in this document and we'll receive your advice, and the question is how many real stakeholders are out there, how many states think I want to hear more about

this.

I'm not saying I'm buying in, but I want to hear more about this to see whether it really is an option in my state, because there are some stewardship issues associated with it.

The stuff is in the ground, you've got a mega curie and it's more than a hundred years control. So these are the issues that I think will be flagged in the paper and, in fact, we want your early feedback to make sure we're defining the issue properly.

MR. CAMERON: Thank you. Aubrey?

MR. GODWIN: It's just a little [inaudible.] Godwin, Arizona. But is it possible that if something got entombed under the Nuclear Regulatory Commission regulations and then somewhere down the line, the state became an agreement state, but as long as its reactor types [inaudible,] but they become an agreement state, they decide to lower the standard a bit to say two millirem a year instead of 25 and their license [inaudible] and requires to keep a license a tad longer.

Has anybody looked at that or is that going to be one of these issues that we're going to wait until we have to cross that bridge?

I can see a philosophical change occurring in

government over a period of 20 to 30 years that may change [inaudible] national level, which if you started out with entombment, you may be forced to do something else before it's over with.

Is there any way to judge these things and try to address them?

MR. CAMERON: Trish, do you understand the issue that Aubrey is raising and how are we going to try to address that?

MS. HOLAHAN: I think it's a very good issue and I think it's one of the things that we're going to have to look at and, in part, may determine what option you proceed down. I think some of the options, it isn't clear that the individual states would have to assume some responsibility and depending on what the institutional controls are.

But I think it's going to be have to be something that is looked at closer. I don't have a specific answer yet.

MR. CAMERON: We have noted that issue as an issue that needs to be explored, though. Right?

SPEAKER: I think the same issue I addressed earlier. Whether entombment or decommissioning, one, we need to all know where we are. So next year, I'd like to come back and say here's where the 32-33 entities are. And as I mentioned when I

spoke, when you put something in place that is more restrictive, you have to back that up with some kind of methodology to define how you get to that two millirem or how do you get to that four or how do you implement that NCL, and that's a big can of worms.

So it's a good question and, one, we need the answer for decommissioning and I think we'll that next year, and the same issue will develop for entombment, unless the standard for entombment is one that -- well, maybe I won't go there. It depends on how the Commission puts the regulation out, whether it's strict compatibility or not.

COMMISSIONER DICUS: I wonder how many states, because where John was headed [inaudible.] The cost-benefit analysis. If you go to two millirem or one millirem or whatever the standard might be, does the state have the responsibility to do a cost-benefit analysis, and that is something that would be useful in these kinds of discussions.

MR. CAMERON: Any comments from anybody on Greta's observation? Jake?

MR. JACOBI: I'd just observe that many times, especially when you get down to low levels, that cost-benefit may be a question of perception and more a political issue, the

old line about if I gave you $10,000 to cut off your right arm and you accept your arm is worth $10,000, but if no amount of money will cut your arm off, then you can't put a price on it, and you get into a very political situation, what is the public going to take.

We all work for an executive branch, they can select it, and the bottom line really is probably going to be more political than technical.

MR. CAMERON: Thank you, Trish. I think that we should probably move on to the interagency steering committee on radiation standards. And as I mentioned previously, we have one of the co-chairs here of the ISCORS. John Greeves is the Division Director at the NRC for Waste Disposal and John wanted to --

MR. GREEVES: It's a high-paying job, I would point out. Actually, we're going to do this in two steps, kind of like Jim and Kathy did earlier in the day.

I've got three slides I'm going to go through, give a little background on ISCORS, and Steve will finish it off.

There are copies of our annual report back there. I think that's probably the most helpful thing to give you some background on what is the interagency steering committee on

radiation standards. We're going to attend this every year, so I think that will be helpful. Just a -- first slide -- little background. This was kicked off in '94, when Senator Glenn requested a path forward regarding things we've already been talking about, inconsistencies, gaps, overlaps in radiation standards.

Actually, [inaudible] receives this, and so this particular group first started meeting in April of '95. It's a pre-decisional, inter-governmental group, and we meet four times a year.

One of those we open up as a public meeting and look for that kind of input. As Chip mentioned it's co-chaired by NRC and EPA, Frank Marson is my co-chair. I think most of you know Frank.

The membership is probably what you would expect. The Department of Energy has a large presence in the meeting, brings a lot of information to it. Department of Defense, Health and Human Services, Human Health and Safety, Department of Labor, the OSHA rep supports that, Department of Transportation, there's a lot of transportation issues out there, especially with things like Yucca Mountain.

OMB also participates and then we have the observers,

the Office of Science and Technology and the states, which were quite ably represented by Steve Collins and Joe Lapote, and to really add a dimension to these meetings.

As far as the objective of ISCORS, it's really not funded. It's basically what the agencies and the states can put into this.

There are four objectives. The first is to facilitate consensus on levels of radiation risk. I wish I could tell you that we're able to achieve that, but haven't quite made it.

What we have been able to do is promote consistent risk assessment approaches. The agencies come together, the states come together and talk about what are the assessment techniques that we have and there doesn't seem to be any consensus in how to do the assessment part.

Risk management is where it breaks down and it's pretty much the top down ICRP approach and the CERCLA approach, which is the bottom up approach, and we have not been able to resolve that.

Another objective is completeness and coherency of Federal standards. One of the things is the Federal guidance for [inaudible] that was put in place years ago needs to be

revisited and it is a challenge on bring consensus on that topic.

So I invite you to give Steve and Jill your input on that topic, the last of which is identify issues and coordinate resolution.

I think when you see, and Steve will show you, the subcommittees, there are a lot of opportunities there for us to work on issues and do some coordination.

So first, I would like to thank you for your support. A number of the agreement state representatives have staff working with us, NRC and the committee. I'd like to thank you for that, and turn it over to Steve.

MR. CAMERON: And Steve Collins is one of the state representatives to ISCORS and Steve is the Assistant Office Manager of the Office of Radiation Safety, which is within the Illinois Department of Nuclear Safety.

Steve?

MR. COLLINS: Thank you. The handout is the 1999 annual report for ISCORS. I put a copy on each one of the positions here on the horseshoe earlier and I put a copy of each one on my overhead as an insert into that.

It is NUREG-1770, in volume two, and, as Mike says,

there will be a volume three coming out in the next year.

And my last side basically shows you the internet web site address, where you can updated on all these on a quarterly basis.

Next slide. John covered these four items. As he said, the EPA and NRC have pretty much come to agreement on consistent risk assessments, but risk management is more of a policy item and there's quite a bit of lack of agreement there.

Joe and I really do need your input. The last big document that ISCORS put out, Joe and I both commented that it needed a whole lot more work, except that our justifications were on wholly opposite ends of the spectrum for why we thought it needed more work.

So we definitely need your input. Joe was leaning a little bit toward the EPA side, and you know I never go there.

Next slide. John mentioned that this is pre-decisional, inter-governmental discussions, not normally open to the public. One meeting a year is generally open to the public. That means what we say and what we talk about there, I really can't come back and discuss with you until it's open to the public.

So I can receive a whole lot of input. The output

that you will get from Joe and I is when you see an article in the newsletter or maybe on RADRAP or somewhere, whenever we are able to communicate something to you to keep you up to date.

But the NRC does, after each meeting, put in their public document room most of the meeting. The ISCORS does all this technical work through [inaudible.]

Next slide. I put down the page numbers for you on the slide, so you'll know accomplishments and planned activities for 1999 and 2000, on those pages 2 through 12, memberships and subcommittees are on 13 through 18, and a charter, which basically has the objectives and operating procedures and things.

Next slide. The states are, and we're not limited to New Jersey and Illinois. If you want to pay your own travel and participate in this, we're not [inaudible,] but we are observers, not members. We don't get to vote.

Next slide, please. These are the seven different subcommittees that do the technical work. I'm going to cover them one by one.

Next slide. The cleanup subcommittee, Deborah McCall from Washington works on this. You may notice that there is some parallel with who the chair of the SSR committee that

works primarily in this area.

These people are not representing CRCPD on these ISCORS subcommittees, but if you were to pick out who is the best person on these issues to represent you, I think you would kind of come there, and that's number 11; well who do we ask first and maybe they'd share this work.

Reviewing NRC decommissioning regulatory guide and focusing on the subcommittee web sites, lists the models, and a checklist to aid selection of an appropriate model to demonstrate compliance.

This is something very new. They would like for you to go in there and try to look at those models, look at those questions, look at the checklist, see how user-friendly it is and give them some comment and feedback on the proposal.

This whole thing was designed to be put there to make it easy for you to fit the right model for you to do the job you want to do.

The mixed waste subcommittee, Paul Merges, from New York. They analyze and share information. EPA's whole activity in the mixed waste initiative and they provide input to the CRCPD working group, which is doing a lot of the work here in this portion to review that, so that they provide

input.

Next slide. Recycle substitute, that's me. We're reviewing and participating in the NRC rulemaking for recycling of materials or trying to decide if there is going to be a rulemaking. Anyway, we're monitoring that and providing input.

We're maintenance Federal agency actions on the clearance and the import controls. The current status of that, and Joe Klinger is here if you want to talk about what's going on from his aspect, from the CRCPD.

Finally, the Department of State is pretty much stalled due to reorganization, but they're hoping to get back on track very soon.

EPA has tabled its recycle rule work and was focused on interception, thank goodness, and DOE is issuing guidelines for recycle and DOE has posted on their web site and would like to have your input and comments on the material that they have focused on.

Next slide. Risk harmonization. This is the group represented by Joe Lapote that is trying to handle the major issue that was the focus of the original charge from Senator Glenn, who established this group, resolving these differences.

The GAO report that came out not too long ago

basically says that they do not yet agree on a technical basis for what rules we do have and they certainly don't disagree on the policy things.

GAO sent their report out in draft form to have it reviewed by all these different Federal agencies. All of the Federal agencies but one thought that GAO had pretty much produced a report that had accurately defined what the status was and what the problems were and where they were. EPA didn't agree.

Another thing [inaudible] looked at is develop a table to provide an understanding of the use of institutional controls by various agencies.

If you look at Appendix B, which is on the path of this 1999 annual report document, it contains a table, which is not yet completed. There is going to be more added to that table on other items by DOE and others fairly soon.

Next slide. Joe Lapote also loves [inaudible.] You've heard her say it several times. She is the [inaudible] as well. And they have published guidance on radioactive materials [inaudible.]

It is out there available for you to use and to comment on and they are going to be analyzing the POTW sample

analysis results. Some of those results are in. It's not completed yet and they are doing an analysis of those.

The NORM subcommittee, Tom Hill from Georgia. Next slide. They are reviewing reports on the NORM regulations, revisions that are in that are going on now. Tom is the chair of that SR-5 committee and I'm one of the members, so we don't have to do a lot of extra work to keep up with this one.

But they're also going to comment on EPA's technical report on uranium mining.

Next slide. The last one of the seven, Federal guidance subcommittee, Cindy Cardwell from Texas is on this one. If anybody else is interested in this particular one and would like to get on and be another person to help do this work, Cindy would appreciate that.

They're working with EPA to develop an update of the Federal guidance for the general public. I certainly hope that you will read the October newsletter for the Health Physics Society and look at that position paper. I think it's very good.

I had prepared a slide and tried to sneak it through past John Greeves, adding it as one of the bullet points we're supposed to work on. I thought if I put it in print, that

would make it official and not [inaudible] be able to push them to look at it, without having to change it to [inaudible.] I just hope they'll look at it. I know they will, because anything that's new that comes up that's relevant, this particular steering committee looks at it to see what kind of impetus they should give Federal agencies and suggest to their management to deal with it.

Next slide. How do you keep informed about what's going on with ISCORS? It now has a new web site, www.iscors.org, and you can link from that web site to the subcommittees that have established their own web sites. Not all of them have, but the ones who have, there are links there. So you can keep up with that.

And you really do need to contact myself or Joe Lapote or the subcommittee chair, which is in the handout, if you have input for any of these. But you can keep up-to-date by checking those web sites at least once a quarter to see what new information is there.

Thank you.

MR. CAMERON: Thank you, Steve, and thanks, John. Do we have questions for Steve and John on ISCORS and on the subcommittees, what they're doing? Stan?

SPEAKER: I was wondering, ISCORS is taking all the rumblings that come out of the radiation effects research community. It seems a lot of these people are trying to push for higher numbers as far as the standard.

Has ISCORS considered doing that?

SPEAKER: I'm not sure I understand the question. Could you tell me which higher numbers you're talking about?

SPEAKER: The people I call the lobby and [inaudible] and people like that, who seem to think that the current standard for the public of 100 millirem is too low, because they can't really statistically come up with valid information [inaudible.]

Is ISCORS considering that?

SPEAKER: The membership is fully aware of the responses [inaudible] but everybody on the committee is knowledgeable about [inaudible.] So are they taking it into consideration? Yes is the answer.

SPEAKER: Steve Collins is the only person that ever really mentions the mysterious fashion that we do more than just think about them enough.

SPEAKER: I'm having enough trouble with [inaudible] millirem, that above 100 millirem, as some would suggest, would

be a real challenge. We're open-minded.

MR. CAMERON: Any other forum that's addressing the 100 millirem issue?

SPEAKER: I think the Health Physics Society's position that Steve just mentioned is the most recent example. When I spoke -- ICRP came out with new recommendations [inaudible] would prolong exposure and the geologic disposal limit.

All these things line up. Basically, the ICRP approach to setting the limit and constraint, and those are the things that -- Ed asked earlier, what could you come and talk about. Those are the things that I think we all point to.

The cost-benefit analysis that we did in the '97 rule, these are all the tools that you can and should use if you're talking about setting standards. And that's what the NRC would bring to any invitation that would come to the state to make a presentation.

Fortunately, over time, you get more material, like the ICRP recommendation and the Health Physics Society.

To me, I think they're all consistent. What you don't have is a generally applicable standard in this arena by the EPA. If we did, we'd have to pay attention to that, too.

MR. CAMERON: All right.

SPEAKER: As I said, there is -- the EPA is looking at the Federal guidance standard and the update of it and that's really -- John seems to be referring to the August Health Physics Society meetings. I'm referring to an October position statement of new additional limits.

If you've read what you got on your desk this week, a specific position paper of the Health Physics Society on the general radiation standard, and I'm really hoping they will go with something like that to remove a lot of the stuff that was causing a lot of heartburn in terminology had that sort of stuff, but very general and hopefully will eliminate a lot of the arguments about specific numbers.

MR. CAMERON: Thanks, Steve. Let's go to David.

SPEAKER: I think the president of ICRP has recently, last year, come out with the concept of controllable dose, which is somewhat definition from what you are apparently pressing.

Are you all looking at that concept and the dose limits on standards that might come out of that?

SPEAKER: MR. CAMERON: Does anybody know what controllable dose is? Is it worthwhile explaining that?

SPEAKER: If you want. What do you mean by -- maybe Don Cool would like --

MR. CAMERON: Steve or John, you don't have anything to say on this, right?

SPEAKER: I'm not quite sure what Ed is stating here. Maybe Don can help.

MR. COOL: Don Cool, NRC. What Ed is referring to is an idea that was floated a little over a year ago by Roger Clark and he floated it as an individual [inaudible] and ICRP document in and of itself.

There was, I believe, a task group or at least a small group of the Health Physics Society that participated in putting together some questions and discussion.

It engendered quite a bit of discussion earlier this year at Hiroshima, at the 2000 conference. It is not, at this moment, an ICRP proposal.

Basically, what it says is that rather than starting from the standpoint of a limitation and controlling individual sources and controlling individuals, that you stand back and you look at a given situation and look at all of the different pieces which you could put under control, irrespective of the types of materials, quantities, types of exposure routes, as a

different way of looking at some of the activities and possibly giving you a different perspective that might allow some reconciliation or at least some alignment between some of the things that happen now with non -- some of the intervention issues versus some of the nominal practice issues, the kinds of sources that we normally deal with.

I would not expect that ISCORS is looking at that as detailed yet. It's still engendering a great deal of discussion and I know will be under discussion by the ICRP's main commission over the next couple of years, as they consider what the next set of recommendations will look like in approximately 2005.

MR. CAMERON: Thank you, Don.

SPEAKER: The only thing that I was thinking about is that it might be nice for once for the United States not to be lagging the rest of the world by five to ten years.

So it would seem that now is the time to be discussing it rather than reacting to it if and when the change comes.

MR. CAMERON: All right. Greta?

COMMISSIONER DICUS: Just to add a little bit to what Don said, because he is absolutely correct in what [inaudible]

trying to do.

I was at the meeting and as Ed was and Ruth and we were all there and listened to what he said. And he also, and it is his individual comment, it is not ICRP position, would suggest we need to also consider background when we start talking about what we're going to do as allowable dose [inaudible] background in it as well.

And I agree we're way behind the curve, but I think we're waiting to see the next rendition of ICRP before the NRC tries to upgrade Part 20, because you know much trouble we've had doing that.

MR. CAMERON: All right. Thanks, Greta. John and Steve, thank you very much.

[Applause.]

MR. CAMERON: We're going to close out the day with an interesting panel on low level waste disposal, and we have representatives of four states with us. I've asked them to do their presentations and then have one question and answer comment session at the end of all four of the presentations.

And we do have a keynote speaker for the panel, and this is Dr. John Clark from the State of South Carolina.

Dr. Clark is currently the Senior Director of

External Relations for South Carolina Governor Jim Hodges and he has been in a number of other positions with the Executive Branch and the Legislative Branch in the state.

For example, he served as Energy Advisory to both Governor Dick Riley and also to Governor Hodges, as well as the Executive Director of the [inaudible] Energy Office and he was the Director of Research for the Joint Legislative Committee on Energy, the Executive Director of Public Affairs for the Sam Key Cooper, which is South Carolina's state-owned electric utility.

Dr. Clark was also lead staff on the South Carolina nuclear waste task force, which issued the recommendations in December of 1999 that led to the introduction of the Atlantic interstate low level radioactive waste compact implementation act.

As the Energy Advisor to Governor Hodges, he was the chief strategist in getting the legislation through the South Carolina General Assembly here in the most recent legislative session.

He is a graduate of Dickinson College, has a Ph.D. from Syracuse University, and has studied at the University of Paris.

In Guava and Ethiopia, worked in the U.S. Congress, and has taught political science at both at the University of Florida and the University of South Carolina.

And now comes the real interesting part. I think he's a member of the board of trustees of the college in Charleston, but also the co-author of [inaudible] South Carolina, the guidebook.

I would just ask Dr. Clark to join us at this point.

SPEAKER: -- and the new Assistant Secretary of Health, and a new State Health Officer, none of which were there five years ago. And they're just sitting at the table with their mouth open saying we have to make what decision?

Okay. Thanks a lot.

SPEAKER: I apologize. This is the Trojan reactor vessel. Many of you have seen this plot. [Inaudible] gave it at the conference in May.

It was a big deal to us. We approved the shipping of this reactor in one piece, full of concrete, it was a thousand tons, 1.5 million curies, [inaudible] the river.

It took us a long time to do the technical evaluation report. NRC was very patient. The NRC was very involved in the transportation, and, of course, it was their licensee.

It was put on this rolling truck with 28 axles, I think, encased in this shrink-wrap plastic, in the State of Oregon.

We approved it after a series of public meetings and for the most part, with the exception of some stakeholders in Oregon who didn't want to move it at all, for whatever reason, because it had been shut down [inaudible] for 20 years, most people thought okay.

Put it on a barge, took it from the Trojan River. Trojan was just down river from Portland, at river mile 72, up this river to [inaudible] river mile 342, which is 270 miles or so. It took several days.

And the next slide. Gary Robertson met up with the truck and [inaudible] pulled it off and took it to the site, which is about three or four miles from there.

For all practical purposes, [inaudible] controversy. The public wasn't there. Part of the reason was the fact the Navy ships reactors up the river, seven or eight a year, and none of them [inaudible] sub-reactors and now some critical reactors are going up there. [Inaudible] some public do see them going up there.

And here's [inaudible.] The public doesn't

differentiate Hanford commercial low level waste and where it goes. It's going to happen. They see it every day. Next slide. Put it in the hole, cover it with dirt.

Now, all of this was a little over a year ago. Now let's go to the last issue. The last [inaudible] many of you haven't heard about. The Trojan reactor was one and a half million curies. This thing was 20 curies.

You can't imagine the politics involved. The company and its CEO, who make up for [inaudible,] and the fact that NORM is part of the compact agreement arena, and is always looking for business.

This waste was collected as part of the national [inaudible] program over the last 15 to 20 years. [Inaudible] consumer products, a whole bunch of stuff. [Inaudible.]

Based on health and safety -- and I had to sit across the table from the Governor, when he said you're doing what. The goal is [inaudible.] I know the goal is [inaudible] but on the other side, I never saw so many Federal agencies work so many hours in so short a time to try to find a national solution, because it's not a state issue. It's a national issue.

There is nothing in place that says this [inaudible]

can't be shipped into any location. They have a beautiful low level waste package. The most amazing one, they have a web site in six different languages or something like that. You should really go there to see. It looks spectacular. But it was not like [inaudible.]

And they determined that it would cost more money to do an environmental assessment of this material and ship it. So they rented, the company rented a [inaudible] -- the government rented a 747, 120 [inaudible] a place called [inaudible] right smack dab in the middle of the State of Washington, just up the road from the low level waste.

Next slide. [Inaudible.] Obviously, economics controls the decision. [Inaudible] finally got the point where the company could make some money doing it and it didn't make any sense to ship it all the way around the world.

We were told that Italy, France and Brazil also have [inaudible.] [Inaudible] statement discusses [inaudible] and I'm giving hourly calls to the governor's office.

The governor is very happy about this, because we got so much information from the State Department and that he had answers to every question and [inaudible.] [Inaudible] my phone rings and it's the State Department, who [inaudible] high

level [inaudible] and they gave me a 24-hour number and said, now, if anything goes wrong, call this number.

SPEAKER: What is their definition of wrong?

SPEAKER: The definition of wrong had nothing to do with radiation or anything. It was the vision that [inaudible] airport would be surrounded by angry Washingtonians and wouldn't let this plane full of Spanish foreign nationals to leave the state once it landed, and we would have an international [inaudible.] That's basically what they were worried about.

Next slide. Real quick, here is our [inaudible.] Here's our volumes. You can see the big pump in the early '80s and late '70s. We look at about 200,000 cubic feet a year from now on until closer in the year 2056.

There's 13.5 million cubic feet there now and [inaudible] pretty close to 24.5 million cubic feet. Next slide. Total volume of waste currently in the site. It's mostly low level and unclassified, pre-1984 materials.

The Trojan material didn't even make it there, because it was only about 8,000 cubic feet.

Next slide and last slide. But the activity, on the other hand, is entirely different. The Trojan is 40 percent of

the activity, although that's mostly Cobalt, things like that. So it will be gone by the time [inaudible.]

Last, but not least, Northwest [inaudible] stay like it is.

MR. CAMERON: More fascinating stories. We do have time for questions for any and all of the panelists, but I'd like to at least begin with a question for Dr. Clark on the South Carolina situation.

Do we have a comment or a question in regard to the South Carolina situation and Dr. Clark's presentation on that? Any questions on low level waste? Ed Bailey.

MR. BAILEY: Yes. I've got [inaudible.]

MR. CAMERON: Okay.

MR. BAILEY: Bill, I think I've found a way to [inaudible.] Is there any private land available for sale within five miles of the --

[Laughter.]

MR. CAMERON: Is there no answer or any comment on this? Bill?

SPEAKER: [Inaudible.]

MR. CAMERON: Greta.

COMMISSIONER DICUS: A question for Mr. Sinclair. I

think you mentioned on the land ownership, you're looking at legislation. Is that to revert the site to state ownership or Federal ownership?

MR. SINCLAIR: The proposed legislation will actually give the option of both and it will declare the Federal ownership preferential [inaudible.]

COMMISSIONER DICUS: And that would be DOE, right?

MR. SINCLAIR: That would be DOE.

COMMISSIONER DICUS: I wanted that clarified. Then I have a question to Mr. Erickson, if I could.

On the NSTR, and you mentioned [inaudible,] can you tell me which one or ones you're talking about?

MR. ERICKSON: That's a good comment. I'm glad you brought that up. In DOE, in this document, DOE is going to operate this reactor and generate these isotopes and loan the facility to a contractor and they will regulate through this medical isotope company, that's my understanding.

SPEAKER: We distribute to the [inaudible.]

COMMISSIONER DICUS: My understanding is, I can't remember which one it is, maybe someone can help me, but there's just maybe one or two, but we do have an issue of technetium.

A reactor in Canada was trying to make a conversion here to the [inaudible] problems and there is a potential of having problems [inaudible.]

But I think [inaudible] is just to do one [inaudible.]

SPEAKER: I can't remember either.

MR. CAMERON: Dr. Paperiello.

MR. PAPERIELLO: I have to say, if I recollect, it was run in the early '80s and there was even discussion of using it as a plutonium burn at some point to offer a disposition [inaudible.] I know the [inaudible] this is a DOE reactor. I understand the NRC/NRR was involved in doing -- helping DOE with the SCR many years ago. That's about all I know about it.

Actually, as reactors go, it's not as old as any commercial power reactor. I was not aware that DOE was looking into making [inaudible] because they were making medical isotopes or looking into it at the [inaudible] reactor at Sandia and they had made a decision not to go with the technetium.

MR. CAMERON: I should give the panelists who just presented an opportunity to ask any of their colleagues on the

panel any questions that they have. Alice, Bill, John, Dr. Clark, anybody have a question or a statement that they want to make after hearing the other presentations?

All right. We're ready to adjourn. I just have two things before we do. One is that you will see that the OAS business meeting starts tomorrow morning and, also, in that time slot is the national materials working group tabletop.

The beginning of that is dependent on when the OAS meeting ends. So the best that we can tell you now is that the tabletop -- not everybody is going to be at the OAS business meeting. The tabletop will not start before 10:30.

So check in at 10:30 to see how everything is running.

And the second item is related to the tabletop. There's about eight states that we haven't heard from yet in terms of what their priorities are and we know that there's a number of representatives from each state, but the other ones turned in their priorities.

So if you could try to get that to Kathy or any of the other working group members sometime during the reception, that would be helpful.

I'm going to turn this over to Pearce now to tell us

about the -- do you want to tell us just where -- anything you want to say on that? It's always dangerous, I guess, to ask you.

[Whereupon, at 5:00 p.m., the meeting was concluded.]