UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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1999 ORGANIZATION OF AGREEMENT STATES MEETING

Renaissance Hotel
Wedgewood Room
9721 Arboretum Boulevard
Austin, Texas

Wednesday, September 8, 1999

The meeting convened, pursuant to notice, at 8:15 a.m.

PANEL MEMBERS PRESENT:

FRANCIS X. CAMERON, Facilitator
ERIC WEINSTEIN
RUTH McBURNEY
HAMPTON NEWSOME
GEORE BROZOWSKI
DWIGHT CHAMBERLAIN
KATHY ALLEN

P R O C E E D I N G S

(8:15 a.m.)

MR. RATLIFF: I just want to welcome you to Texas. Thank you for coming to this meeting. And, as I've noticed over the years, the Agreement States Meeting has gotten bigger each year since we no longer get federal money, which is an interesting twist in everything.

(Laughter.)

MR. RATLIFF: The hotel here has been really good at working with us. But if you have any compliments, give them to my staff; they did all the work. And I'll take all the complaints and gripes.

I especially want to recognize Marilyn Kelso of my staff -- she has done so much work -- Cindy Cardwell and her whole staff, Doris McCormick outside there, and Margaret Henderson, who coordinated getting this meeting set up, and everybody else that I have forgotten.

If all of the TDH staff could just stand up so we can just see who you all are?

(Applause.)

MR. RATLIFF: There you go. And even though Ed Bailey is still standing up, he does remember that he's from California now.

(Laughter.)

MR. RATLIFF: We're going to get started. Quickly, I want Alice Rogers to say a few words, and then we're going to start off with Stan's fun-and-games day.

MS. ROGERS: Thank you, Richard.

Richard told me last night that I got to give a welcome to you all, so I was trying to figure out how I could use, "Y'all," as many times as possible so you would know that you really are in Texas. But then, walking in from the parking lot this morning, I remembered that one of the main ways you can tell that you're in Texas is when shade is more important than distance to the front door.

(Laughter)

MS. ROGERS: But we're really happy that you all are here and hope that you have a good time and that we get a lot of good business done. Thank you.

MR. MARSHALL: Good morning, and welcome. I am excited -- very excited for this robust attendance. I think we have the block of rooms at the hotel filled, and I think we have maybe in excess of a hundred at this year's meeting. I'm grateful for the attention to this, and I'm glad to be here in Texas. Some of you know that I married a Texas 12 years ago, which adds a little different meaning to the song "All My In-laws Live in Texas", because they truly do.

(Laughter)

MR. MARSHALL: At this time, I'd like to go around the room quickly to have each person at the table and in the audience introduce themselves. I'd like to acknowledge old friends and old faces and new friends and new faces that are here.

We'll start down at the end here with Mike. Please identify yourself and your state.

MR. BRODERICK: I'm Mike Broderick of Oklahoma. Hopefully, our last OAS meeting as a Non-agreement state.

MS. McCLANAHAN: I'm Sue McClanahan from Minnesota. And I don't know if I want that.

MR. WHATLEY: I'm Kirk Whatley from the state of Alabama.

MS. TEFFT: Diane Tefft from New Hampshire.

MR. PASSETTI: Bill Passetti from Florida.

MR. SNELLINGS: David Snellings, Arkansas.

MR. WANGLER: Ken Wangler from North Dakota.

MR. HILL: Tom Hill from Georgia.

MR. FLETCHER: Roland Fletcher from Maryland.

MR. FRY: Mel Fry from North Carolina.

MS. ROGERS: Cheryl Rogers, Nebraska.

MR. FITCH: Stan Fitch from New Mexico.

MR. PARIS: Ray Paris, Oregon.

MR. BAKER: Gary Baker, New York.

MR. DUNDULIS: Bill Dundulis, Rhode Island.
MR. O'KELLEY: Pearce O'Kelley, South Carolina.
MR. RATLIFF: Richard Ratliff, Texas.
MS. JONES: Cindy Jones, the NRC.
MR. LOHAUS: Paul Lohaus, Office of State Programs at NRC.
MR. HOWARD: John Howard, Governor Bush's Office here in Texas.
MS. DICUS: Greta Dicus, NRC.
MR. MARSHALL: Stan Marshall, Nevada.
MR. BAILEY: Ed Bailey, California.
MR. CAMERON: Chip Cameron, NRC.
MR. SUPPES: Roger Suppes, Ohio.
MR. GOFF: Bob Goff, Mississippi.
MR. SINCLAIR: Bill Sinclair, Utah.
MR. FRAZEE: Terry Frazee, the state of Washington.
MS. SHULTS: Debra Shults, Tennessee.
MS. ROGERS: Alice Rogers, Texas.
MR. HALLISEY: Bob Hallisey, Massachusetts.
MR. KLINGER: Joe Klinger, Illinois.
MR. SEELEY: Shawn Seeley from Maine.
MR. WASCOM: Ronnie Wascom, Louisiana.
MS. JEFFS: Vicki Jeffs, Kentucky.
MR. GODWIN: Aubrey Godwin, Arizona.

MR. SCHMIDT: Paul Schmidt, Wisconsin.

MR. MARSHALL: I agree, Ed: No one dropped the mic. That's great.

I'd like, I think, to introduce the audience, as well. I don't know how we'll do this with a standing mic, but we might run the microphone down here at the end in front of Shawn to the audience.

MR. GREEN: Bob Green, Compliance and Inspection, Texas.

MR. WEAVER: Ken Weaver, Colorado.

MS. YOUNGBERG: Barbara Youngberg, New York.

MR. COLLINS: Steven Collins, Illinois.

MR. FITZGERALD: George Fitzgerald, Texas.

MR. DUNN: John Dunn, California.

MS. LARKINS: Pat Larkins, NRC.

MR. RAO: C. D. Rao from Texas Natural Resource Conservation Commission.

MS. HENDERSON: Margaret Henderson from Texas.

MR. PETERSON: Jim Peterson, South Carolina.

MR. PORTER: Henry Porter, South Carolina.

MR. MULDER: Roger Mulder, Texas.

MR. OWEN: Bob Owen, Ohio.

MS. ALLEN: Kathy Allen, Illinois.

MS. WHITE: Susan White of Texas.

MR. WHITE: Duncan White, NRC Region One.

MR. McNEES: Jim McNees, Alabama.
MR. WHADFORD: Vic Whadford, Texas.
MR. THOMPSON: Jered Thompson, Arkansas.
MR. FLATER: Don Flater, Iowa.
MR. BUNGE: Mark Bunge, Wisconsin.
MS. [indiscernible]: [indiscernible], Texas.
MR. DEERING: John Deering, Texas.
MR. [indiscernible]: [indiscernible], Texas.
MR. [indiscernible]: Rick [indiscernible], Texas.
MR. FOGLE: David Fogle, Texas.
MR. WOODRUFF: Richard Woodruff, NRC Region Two.
MR. SMITH: David Smith, Texas.
MS. CARDWELL: Cindy Cardwell, Texas.
MR. SMITH: Gary Smith, Texas.
MR. HACKNEY: Charles Hackney, Region Four, NRC.
MR. [indiscernible]: [indiscernible], Region Four, NRC.
MR. [indiscernible]: [indiscernible].
MR. COMBS: Fred Combs, NRC.
MR. [indiscernible]: [indiscernible], NRC.
MR. COOL: Don Cool, NRC.
MR. SOLLENBERGER: Dennis Sollenberger

[phonetic], NRC.

MR. McLENDON: Chuck McLendon, Texas.

MS. CAMPBELL: Vivian Campbell, Region Four, NRC.

MR. CAIN: Chuck Cain, NRC.

MS. McLEAN: Linda McLean, NRC.

MR. COLLINS: Doug Collins, NRC Region Two.

MR. SHAFFER: Mark Shaffer, Region Four, NRC.

MR. CHAMBERLAIN: Dwight Chamberlain, NRC Region Four.

MR. WALTER: David Walter, Alabama.

MR. BOLLING: Lloyd Bolling, NRC.

MR. KEMPER: Murray Kemper, NRC.

MS. BACA: Bernadette Baca, Texas.

MR. SHAVER: Phillip Shaver, Texas.

MS. SCHNEIDER: Kathy Schneider, NRC.

MR. SHROFF: Jim Shroff, Texas.

MR. LYNCH: Jim Lynch, NRC Region Three.

MS. HOWARD: Marcia Howard, Ohio.

MR. [indiscernible]: [indiscernible], NRC Region One.

MR. KLINE: Dale Kline, Texas Radiation Advisory Board.

MR. JOHNSON: Ray Johnson. I'm from Maryland, and I'm here representing the Health Physics Society.

MR. JACOBI: And Jake Jacobi, Colorado. I'm too -- I had too many margaritas last night to fit between Alabama and Nebraska there.

MR. MARSHALL: That's -- we know way too much, Jake.

(Laughter.)

MR. CAMERON: Bill?

MR. STONE: Bill Stone with Texas.

MR. MARSHALL: Is there anyone else?

MS. KELSO: Marilyn Kelso, also from Texas.

MR. MARSHALL: Great.

At this time, I want to turn this over to Richard.

MR. RATLIFF: It's my pleasure this morning to introduce John Howard. He's with Governor Bush's staff, and he's the Director of the Natural Resources and Environmental Program.

John?

He's going to welcome you really to Texas.

MR. HOWARD: Thank you.

On behalf of Governor Bush and the great State of Texas, welcome to this conference and to Austin. Austin is our capital city, and we're very proud of it. And while I hope that you get a lot out of this conference, I also hope that you will get out and see

Austin.

Since 1964, agreement states have been meeting with their federal counterparts to discuss and resolve the often complex and technical regulatory issues concerning radiation. And even though the federal funding, as we have noted several times and will probably hear a few more times, has been cut three years ago, I'm very proud that the states have taken it upon themselves and made the significant commitment to continue meeting.

I hope that through this year's conference, you'll learn more about what the other states are doing and what the other federal agencies are doing so that you can take home improved tools and, just as importantly, improved relationships to resolve these technical and complex issues. Since congress first adopted the whole concept in 1959, we now have 30 agreement states.

Texans like to brag a lot, so I will just for a minute. We grow the most cattle -- we raise the most cattle and we generate more oil and gas than any other state. We produce and use more electricity than any other state.

We are the second-largest state, both in terms of population and land mass. If we were a country, we would be the world's 11th largest economy, but, unfortunately, we were only the fifth agreement state.

So agreement states have taken on the significant job of accepting the primary responsibility for regulating radioactive materials within their borders with the objective, of course, of protecting workers, the public and the environment from unhealthy radiation exposure.

The theme for this year's conference is very appropriate not only to the last three years of your commitment of coming forward and funding this event, but, also, to something that our office has worked very hard on, and that is: Nation-wide challenges with state-wide solutions. You have shown through your commitment that the states can run a very complex and often controversial program at the state level.

Governor Bush is fond of saying, "Let Texans run Texas." And while your states may not have the same exact phrasing, the sentiment probably holds true in most of your states, and that is: That government works best when it is closest to a particular concern given adequate resources and support.

You have shown and your states have shown in most cases that you have that support and that you are willing to dedicate those resources. And because of that, the program is, by and large, a big success.

The agreement states have many issues in

common; hopefully, you'll talk about some of those. And you also have a lot of unique issues. Here in Texas, just a handful of things that we are working on -- some of you, including Chairman Dicus, have had the chance to visit the federal Pantex Weapons Disassembly Plant outside of Amarillo, Texas.

We're concerned about transportation issues for the WIP site just across our western border in New Mexico. We're working on addressing the commercial irradiation of food. And, as many of you are wrestling, we're trying to decide whether assured isolation really is the most practical way to long-term manage low-level radioactive waste.

Whether you share these same concerns or have different concerns and different approaches, we share the same goals. And we can benefit from each other's participation and experience.

I believe the key to the future success of this and any other similar enterprise is cooperation, from the training and emergency response exercises that you hold to the incident investigations you participate in to addressing such issues as the use of lasers to forming a host of other policies and regulations.

I encourage each of you to use this conference as an opportunity to learn more about your area of

expertise, as well as to continue to develop the relationships around this table. Together, we'll be better equipped to solve these difficult issues.

Now I'll turn it back to Richard.

(Applause.)

MR. RATLIFF: Thank you, very much, John. In fact, I think you're going to stay for part of the conference today, which is real good.

And I think John hit so many of the points, that we have so many complex issues that, sometimes, we don't know which one to deal with first. And, like Dr. Patterson, my Executive Deputy Commissioner, always says, radiation, though, is third on her list because oysters and ephedrine ate up more of their time than radiation, which is real surprising.

But I think we have some real complicated issues, but I think we've got the means and the people to solve them. So I think it's going to be a good conference. And we're going to start with Stan and with Greta Dicus. And I think it's going to work real well. Thank you, much.

MR. MARSHALL: I want to try to sit here and relax. I want you to know that this has been -- that I'm nervous this morning, but I'm glad to be here.

As we start the new millennium, I want to

briefly characterize this last year as one of changes and transitions for the Organization of Agreement States. I want to acknowledge the retirement of Dick Bangart from the Office of State Programs. We will all miss and we're sorry for the passing of Wayne Kerr, our friend to this program, of the Office of State Programs, as well as the great State of Illinois.

We are in the first year or so of OSP leadership by Paul Lohaus at the helm of OSP. We have recently seen the signing of the 31st agreement state, the great State of Ohio.

In this last year, I believe, there has been more participation by the Office of -- excuse me -- the Organization of Agreement States with the NRC working groups. And I also want to recognize the recent retirement of Joel Lubenau, a friend of the Pennsylvania program, long-time NRC staff and technical assistant to Greta.

With all the changes and transitions, in some ways, the agreement states are in a more difficult times than ever, but I believe the programs are also stronger than ever before. And a great share of that success has been the result of learning from each other at meetings like this.

When I solicited your input for agenda topics

for this meeting, I was humbly impressed by your responses. Your agenda for this three-day meeting is comprised of your interests and needs, not contrived guessing by me or anyone else. I thank you for your support to me as Chairman, and I encourage your continued timely response and input to Ed Bailey in the new year.

Without further ado, I want to touch on one last transition as we come to this meeting. Once upon a time not so long ago, Greta Dicus sat around this table and she helped lead this group. And she returns today as a confirmed NRC Commissioner and recently confirmed Chairman. I welcome our friend, U. S. Nuclear Regulatory Commission Chairman, Greta Dicus.

(Applause)

MS. DICUS: Okay. Well, thank you, very much, and good morning, everyone. And it's really good to be back and see so many of you.

Not totally out or I can't read this.

(Laughter)

MS. DICUS: Okay. This should be a challenge. Oh, thank you. I need a little light -- a little flash-light.

(Pause.)

MS. DICUS: No. This is fine. I can do this.

At any rate, I'm really pleased and very proud

to be here today as both the Chairman of the Nuclear Regulatory Commission and as a former agreement state radiation control program director. And today, I would like to share with you my vision for the future of the agreement state program.

As all of you are aware, both the NRC and agreement state programs have undergone significant changes over the past ten years, resulting in a number of improvements in our programs. In response to stake-holder concerns, the NRC has engaged in one of the most aggressive regulatory reform efforts ever undertaken in the history of the Commission; as a result, we have a greater understanding and confidence in the program today as it is carried out across the nation.

I note that states have increased opportunity for early involvement and regulations, guidance and other regulatory development activities and now play a much more significant role in helping direct, shape and administer the program. I see further increased need and opportunity for state involvement, what I still and will refer to as empowerment of the states.

Not only do I believe that the NRC is a more effective and efficient regulator today than it ever has been, but I would like to recognize several significant areas of improvement in communication and effectiveness

that have taken place between our organizations that continue to make major contributions to the program.

Although the agreement state program and NRC have always had a unique perspective on how to give and exchange information, the concept of stake-holders was a relatively new concept for the NRC and, in many cases, did not quite have the same meaning for everyone.

Of course, if we looked at the individual meanings of the words "stake" and "holder", we find from the American Heritage Dictionary that a "stake-holder" may be a person who has a right or legal share in something. It is, of course, the latter viewpoint for which we are all striving to seek.

Both the agreement states and the NRC have many mechanisms for engaging people in an effective manner, and I'd like to point out what some of those are: Involvement in Commission briefings, staff workshops and conferences, inter-agency working groups, involvement through various state and federal web sites, public and congressional hearings and petitions for rule-making, just to name a few.

In reviewing our respective programs over the past four years since becoming a commissioner, I have noted a significant increase in agreement state involvement in NRC policy and regulation development

since the initiation of the first NRC agreement state working group that was created for the development of implementing procedures for agreement state adequacy and compatibility policy statement, in October of 1995.

Since then, there have been more than 25 working groups, including Radioactive Sources and Devices, Agreement State Training, Generally Licensed Devices, Nuclear By-product Material Risk Review, Part 35 of the Medical Use Regulations, and Incident Response Self-assessment.

Some other examples of where states have participated in NRC processes? Commission Stake-holder Meetings, for example; New Jersey and Illinois participated in those. NRC's Regulatory Information Conference held each spring: Illinois has been a participant in those. NRC Reactor Inspection and Oversight Pilot Program and Assessment: Again, New Jersey and Illinois. Development of guidance on the use of potassium iodide: Arizona, Tennessee, Alabama, as well as the CRCPD. Development of guidance for de-commissioning: Many states are involved with us in that process. Development of the issues paper for clearance, with Illinois involvement. And the Integrated Material Performance Assessment Program which -- I think most of you are involved in assisting us.

So what is the current status of the agreement state program? In looking to the future, the current status of the program and projected growth in the number of new agreement states raises issues for consideration where states may need to exercise an increased role in administration of the agreement state program.

As you know, I've very pleased to report that the 31st Agreement State, Ohio, entered into that agreement, which was signed by me on August 11 of this year and because effective on August 31. Also, effective September 1, 1999, NRC regulates about 5,200 materials licensees in 19 states, Puerto Rico and the District of Columbia.

Thirty-one agreement states regulate about 16,275 licensees. NRC will continue to maintain an oversight role through impact for both agreement states and NRC's materials programs. State involvement in impact and guidance development has strengthened the process and has helped share in the resource requirements.

With the increase in new agreement states, the NRC materials program, which currently provides the majority of the national infrastructure for regulations, guidance, procedures, training, incident response and databases, will become increasingly difficult to

maintain. So let us look at just what some of these facts are.

These states are currently pursuing agreement state status: Oklahoma, Pennsylvania, Minnesota and Wisconsin. And the second column shows the number of licensees those states would have, and the last column shows the anticipated year that they will become agreement states.

Other states are expressing interest in or exploring agreement state status. Connecticut, Virginia and Utah are considering uranium-recovery activities.

As can be seen from these slides, by Fiscal Year 2003, the number of NRC licensees could be reduced from approximately 5,200 to just over 4,000, which would result in a reduced fee base to maintain the national infrastructure and provide support to NRC's materials program.

This not only provides us with an opportunity to consider new approaches to the agreement state program within the scheme of the national materials program, but a chance to review policy, legal, fiscal and implementation issues associated with future changes to further define the program.

Now I'm going to shift gears a little bit and talk about some of the activities that are ongoing at NRC

that are of particular interest to agreement states. And I know that many of these issues are on the agenda for further discussion by the agreement states and the NRC staff, and I hope that the rest of the meeting will be as productive as the agenda has planned it to be.

Let's talk first about the release of solid materials at licensed facilities. The issues paper was released on June 30 of this year for public comment. The NRC initiated the consideration of a rule-making to establish criteria for the release of solid materials with low levels of radioactive contamination in order to establish a regulatory framework more consistent with existing requirements for air and liquid releases.

Facilitated public meetings will be held to obtain early stake-holder input on major issues, including conducting a scoping process related to the scope of environmental impacts. The first public meeting will be held next week, September 16 and 17, in San Francisco. Meetings in Chicago, Atlanta and Rockville, Maryland, will follow.

Another issue on our plate is the general license rule. On July 26, 1999, the Commission proposed changes to its regulations to establish additional requirements for users and distributors of by-product material in certain measuring, gauging and controlling

devices. The comment period ends October 12 of this year.

The proposed amendments to our rule would include requiring a registration process, adding a registration fee, and would clarify which regulations apply to all general licensees. These revisions are aimed at providing greater assurance that users of these devices will properly handle and dispose of them, thus reducing the potential for un-necessary radiation exposure to the public or contamination of property.

In addition, the Commission published a final rule in August of this year which allows NRC to request information from a general licensee and provides a legal basis for our registration program.

Risk-informing performance-basing materials regulations: The Commission recently approved a staff proposal to implement a framework for using risk assessment in regulating nuclear material uses and disposal.

The Commission directed the staff in SEC E 99,100 to develop appropriate material safety goals, analogous to the NRC reactor safety goal, to guide the NRC and to define what "safety" means for a materials program. The staff was directed to develop these goals through an enhanced participatory process, including

broad stake-holder participation.

The Commission further requested that the national materials program include an agreement states component that must be factored into the decision-making process to avoid duplication, gaps or conflicts with the national program.

One of my favorite topics: Offering sources. NRC has worked over the past two years with the CRCPD's E-34 Committee on unwanted radioactive materials to develop a national offering source program. The project includes providing aid in the management of unwanted and uncontrolled radioactive material by identifying sources of assistance with the handling of the material and by finding suitable outlets for the material.

NRC recently signed a memorandum of understanding with the Department of Energy that defines the agreed-upon roles and responsibilities of the NRC and DOE in situations involving offering sources where NRC is responsible for leading the federal response, immediately health and safety hazards have been addressed and assistance with the transfer of the material is determined to be necessary for continued protection of public health and safety and the environment.

10 CFR, Part 40: The Commission directed the staff to provide recommendations to the Commission for

developing a more risk-informed and coherent set of requirements for licensing source material under Part 40, including options for Commission consideration on how to proceed to address the jurisdictional and technical issues associated with regulating source material.

NRC staff is evaluating options relating to the exemption in 10 CFR, Part 40.13(a) for materials less than 0.05 percent by weight-source material.

Cost estimates for completion of the formally terminated NRC-licensed sites programs: The staff has recommended that the Commission approve the submittal of a general fund appropriation request to the Office of Management and Budget for $1.65 million to provide financial assistance to the states for the purposes of reviewing files, conducting surveys, characterizing and remediating sites formerly licensed by the Commission.

And that paper is in SEC E 99,193, as a matter of reference. And we are relatively optimistic that we will be able to get some, if not all, of the budget request that we have put in.

So, in summarizing, let me say that significant changes will continue to occur in both of our programs as we move on to the next century. We must strive ahead to continue the success that we have been able to achieve thus far. Empowering the states to assist the NRC in its

development of future materials regulations and guidance will further our working relationship, as well as enable both of our programs to be more effective and efficient.

The importance of communicating with the public, licensees and various regulatory agencies is paramount; our continued success in dealing with complex situations will depend upon obtaining full and open communication with all of our stake-holders.

Again, let me tell you how much I really thank you for your very kind invitation for me to come down this morning and be your keynote speaker. I wish you all the best and continued success at this conference.

And I think, with that, we probably have time for some questions if you would like to have an exchange, a conversation, rather than just listening to me. Again, thank you, very much.

(Applause.)

MR. MARSHALL: Questions for Chairman Greta?

Steve?

MR. COLLINS: Steve Collins from Illinois. You mentioned that you -- in the performance-based -- risk-informed performance-based comments that the NRC might try to define what is meant by "safety." And I would like you to describe that a little bit more, because the last federal agency that got involved in

doing that -- we don't all like where they ended up.

And we think that, in the radiation area, maybe NRC would be better from a purely scientific basis to define what "safety" is. And what -- please explain a little more.

MS. DICUS: I think the important point is going back to -- we may or may not be able to define exactly what "safety" is for materials uses, but I think we have to approach that and we have to attempt to, and we shouldn't be afraid to take a stab at it. But I agree with you: It's not going to be just one agency really necessarily that can do that explanation.

We're going to have to reach out to all of our stake-holders, which is the whole point of having the communication, putting the issue out on the table and discussing it. And I think we do have to do that.

MR. McNEES: Jim McNees from Alabama. For the question about providing the infrastructure for national materials program: For the past decade or so, the majority of the infrastructure provided by NRC has been funded by NRC's licensees.

Now that we're making the shift to where many more licensees are no longer NRC licensees, I don't see any progress in having a basis for funding the infrastructure and keeping up this necessary

infrastructure of a national materials program with so few materials licensees being left in NRC.

MS. DICUS: Yes. That's -- kind of at the heart of what we're concerned about is -- you know, I'm very pleased and want more states to become agreement states. I'd be happy if all of the states became agreement states, but, clearly, since we are right now essentially 100-percent fee-supported does get at the heart of the infrastructure of having the necessary funding for the program.

And I think, as we consider what our options are going to be in the out years, as more and more states are becoming agreement states, we're going to have -- you know, congress is going to have to address this issue in some way or the other. That's going to be the ultimate resolution of it.

IN our budget request for the next fiscal year, we have -- for several years, actually, for OMB, Office of Management and Budget, we've asked that up to 10 percent of our budget come off the fee base and be funded out of general revenues. OMB has declined to allow us to do that. And, of course, we have to submit, you know, the President's budget, so we have to do what OMB says even though we are an independent agency.

However, I've taken my cause to individual

senators and congressmen, and they are sympathetic to it. And at this point, while the budget is still under consideration by congress, at least one of the bills does have up to 10 percent of our budget off the fee base.

It may be, as we continue down the road, that this is going to have to be addressed and there's going to have to be a general funding at least of the basic infrastructure of the program.

Jake?

MR. JACOBI: Jake Jacobi, Colorado. I read recently that the NRC is saying that it is capable and probably should regulate DOE facilities; however, I also noticed in that statement that it said the agreement states should not be involved in that regulation.

I guess, two questions. One: Would you explain why the agreement states should be involved? And, secondly: Do you think there would be an opportunity to contract with agreement states to have some involvement?

MS. DICUS: Okay. It -- that is a sensitive question. And being from -- a state person, I looked at that kind of closely. But it does relate to the fact that agreement states for the most part do not regulate any kind of federal facility. And these are federal facilities. So it keys in on that, for consistency, we,

the NRC, will maintain the regulatory authority over federal facilities.

Nevertheless, that does not necessarily rule out some potential of contracting with the state agency in some manner or the other. So I still think that can be on the table for discussion.

Dale?

MR. KLINE: Dale Kline, Texas Radiation Advisory Board. As the NRC moves towards risk-informed performance-based regulation, could you talk a little bit about your training program that you have in house and how that training program might assist the agreement states as they also look at a risk-informed performance-based regulatory structure?

MS. DICUS: Well, I'm probably going to -- may have to turn to staff to get it if you want to get into very many of the details. What we are trying to do with our program now, it's -- really, as far as that part of it's concerned, it's in its infancy.

We are still adding some new programs and trying to get the training up so that we can get all the way through the staff and really understand what risk-informed performance-based means and then open up those courses to -- and I might have to ask Paul to what extent they are opened up now to agreement state

personnel.

Do you want to take that?

MR. LOHAUS: Paul Lohaus. As for any of the NRC courses in this area -- in the materials area, those courses would be available for attendance by agreement states staff.

For those courses for which there is no tuition cost, there would be no tuition expense. For any of the courses which are contracted, there would be a tuition cost, and the states, per our current policy, would be responsible for any tuition costs for those courses. But they would be open and available for attendance by agreement states staff.

MR. GODWIN: Aubrey Godwin, Arizona. Actually, two questions. The first one: Is the budget -- for these formerly licensed sites, is that in the current budget, or is that in the next budget?

MS. DICUS: It's in our next budget.

MR. GODWIN: Then, in that case, if you could, keep some of the states advised. Perhaps it would be appropriate for the states to support that, either by letters to our own congressmen or to our senators, or to testify if appropriate.

MS. DICUS: That would be very helpful.

MR. GODWIN: We would also -- at least some of

us would be willing to testify relative to the infrastructure program you've got.

MS. DICUS: Thank you.

MR. GODWIN: The second question has to do with the DOE regulatory program. If the NRC regulates it, are you going to expand your regulatory program to include things other than the AEA materials, for example, particle accelerators and, you know, radium, that's not part of the normal program --

MS. DICUS: If --

MR. GODWIN: -- which I think -- in your pilot program, I think, the state of California helped you with?

MS. DICUS: They did. If congress gives us the regulatory responsibility for DOE facilities, it's our intent at the same time to ask for the regulatory authority for NORM as well as accelerators.

MR. BAILEY: Greta?

MS. DICUS: Uh-huh? You're too close, Ed.

MR. BAILEY: We used to sit closer.

MS. DICUS: That's right. You used to sit beside me.

MR. BAILEY: Yes.

MS. DICUS: I remember.

MR. BAILEY: I cannot let an opportunity go by

to -- without saying that, having participated in the two pilot programs at Lawrence-Berkeley National Lab, we felt -- and when I say, "We," I think I pretty much can speak for both the State of California regulatory program and for the DOE regional office, and for the lab management itself -- in saying that they -- we basically all agreed that the state could do the regulation.

And, in fact, there were comments made to the effect of -- that the lab people really weren't interested in trading one regulator in Washington for another regulator in Washington. And that's sort of how they viewed it.

The other thing is that I think there are precedents certainly in the EPA programs for states to regulate federal agencies. And if that still is a sticking point, I don't know of any of the national labs that are operated by a federal agency; they're all operated by a private contractor.

And we go into military facilities now that are manufacturing weapons and so forth, and we regulate those even though, in some cases, there may be security clearances required, or whatever. I just don't see why there needs to be any impediments put in the way of agreement states regulating these labs.

In our case, out of the five national labs in

California, two of them are primarily accelerator laboratories. And we would be happy to regulate those facilities, and we'll let you continue to regulate more than 4 million quantities of S and M.

MS. DICUS: Thank you, Ed.

MR. KLINGER: Greta?

MS. DICUS: Yes?

MR. KLINGER: Joel Klinger, Illinois. The $1.65 million that you mentioned for -- is -- are there funds allocated for reimbursement to states that took the initiative to take action on sites in their states?

MS. DICUS: That -- it won't be retroactive, unfortunately.

MR. KLINGER: Really?

MS. DICUS: It's going --

MR. KLINGER: You're supposed to reward --

MS. DICUS: -- to be going --

MR. KLINGER: -- initiative and enthusiasm.

MS. DICUS: It's going to be going forward money.

MR. KLINGER: Really?

MS. DICUS: Unfortunately, unless congress will give us some more money. And we'll see what we can do.

MR. KLINGER: Well, thank you.

MR. MARSHALL: I see a hand.

MS. DICUS: Yes.

(Pause.)

MS. DICUS: Well, he took it down.

MR. MARSHALL: Are there any more questions for Greta?

(No response.)

MR. MARSHALL: I'd like to keep her here for a minute with a special presentation.

MS. DICUS: Okay. Would all the people from Ohio please come up here -- everyone that's here with the Ohio program?

(Pause.)

MS. DICUS: Everyone else is leaving.

(Laughter)

MS. DICUS: Okay. I have a little presentation for you. We had hoped to have a joint-signing over. Of course, it was just an absolute joy for me, having been the director of a state program, to be able to actually sign an agreement with a state becoming an agreement state program.

But the governor's schedule and my schedule would not match. And you guys were so anxious to be an agreement state that I had to go at it -- I signed it separately. And we sent it to the governor, and the governor signed it. But we do have a picture of me

signing the agreement with the state of Ohio, and I'd like to present it to you.

(Applause)

MR. SUPPES: Greta, this is really something that Ohio has been seeking for a long time. In April of 1991, Governor Wernovich sent out a letter wishing to become an agreement state. And we had hoped to get that done during his administration, but we didn't quite make that. The Governor did sign the agreement.

I mentioned to Jim Lynch that we were only two days old when we had our first incident.

(Laughter)

MR. SUPPES: But it's -- and we had a nice phone call from the president of the medical systems, indicating -- wanting to know what we were going to about the license that he had renewed. And so it's -- it hasn't taken long at all for Ohio to get involved and be a part of the agreement states program.

So we do look forward to it. I said to staff on the 31st that, "It's here. We've all sought this. And the thing is: We asked for it." So --

(Laughter)

MR. SUPPES: -- it isn't something that we can blame on anybody else. It's our responsibility, and we're looking forward to it. Thank you, very much.

(Applause)

MR. RATLIFF: Greta, on behalf of Texas, we wanted to leave you with -- we thought this was real appropriate. It's about team work. Together, we achieve. And I think that's what we see happening. We have a Year 2000 calendar in here. I didn't see any to Moscow or Chernobyl. I think that will help.

MS. DICUS: Thank you.

MR. RATLIFF: But we know you travel a lot. And we're getting to the millennium's eve. And I thought you'd like a good Christian fiction novel on the coming of the millennium.

(Applause)

MS. DICUS: You realize, of course, that we're flying back today, not tomorrow.

MR. RATLIFF: Unless you're kidnapped.

MS. DICUS: Oh, that's right.

MR. MARSHALL: Okay. I don't know where we're at time-wise, but the schedule indicates it's time for a break. So let's take a 15-minute break.

(Recess.)

MR. MARSHALL: I want to introduce Chip Cameron from NRC, who has graciously agreed to facilitate our meeting again. I also want to acknowledge and thank the NRC for transcription services for the meeting.

And I think, by -- if I start -- maybe we'll start the meeting a couple of minutes late and make up for it by quitting early. Can you do that?

(Laughter)

MR. CAMERON: Well, I'll have some things to say on that in a couple of minutes that should prove humorous to everybody, probably at my expense. But it's nice to see all of you again, and I really do appreciate the opportunity to facilitate the meeting. This is a great group of people and a great meeting, and I really enjoy doing it.

And, hopefully, I can help in a number of ways to contribute to a good meeting by, one, trying to keep the discussion relevant and focused on whatever particular agenda topic we're on and, also, in trying to get some discussion threads going on a particular issue, rather than the unrelated monologues that we're all familiar with that don't really connect to anything, and maybe help to do some problem solving and to, also, identify action items for either the NRC or the states to take out of the meeting so that we provide some closure on some issues and, also, so that we document who's going to do what.

I want to make sure that everybody has a chance to talk. And I know that we don't have any really

blushing violets out there, so I know that we're going to have a good discussion on a lot of issues. And we're not going to, obviously, exclude all of you out there in the audience from this discussion, either. And we'll be going out there.

And the last thing is to, hopefully, keep us on schedule, and I guess there are two things in that regard. As you'll notice, before I got involved at all in this meeting, Stan had us 45 minutes early. So I don't know what that says about my skills about facilitating, because I think I'll probably find a way to delay this.

(Laughter)

MR. CAMERON: And the second thing is: We still have -- in that regard, we still have a half-day of the meeting from last year that we have to finish. So --

(Laughter)

MR. CAMERON: -- I thought, "Well, maybe -- we may want to start with that.

But the planning committee for the meeting put together a great agenda, and, as Stan mentioned, an agenda based on things that you guys wanted to discuss. And it's a spare agenda, I think, in terms of giving us enough time to talk about everything.

So the ground rules again are fairly simple,

and I think they'll help us keep the discussion organized and make sure that Pat, our stenographer, gets a good transcript back there.

If you want to talk, put your name tents -- these are great name tents -- put them up on edge. And they do stand up. And I'll keep track of who wants to talk. I may not take your cards in sequence if we're trying to follow one of these famous discussion threads that I mentioned.

Pat, the stenographer, does have everybody's name and where you're sitting so that you don't have to say your name every time you want to say something. She'll just follow that, and she's saying something to me now that probably is --

THE REPORTER: It would help -- I can't see the people's cards on this side. I'm sorry.

MR. CAMERON: Okay.

THE REPORTER: If you'll say the name of your state, that will be fine.

MR. CAMERON: Yes. If you on this side could, identify yourself then. And that way, she'll be able to get who it is that's speaking.

When we go out to the audience, if you could, give your name and affiliation if that's appropriate. The microphone genie appeared during the break and

brought us some more microphones.

I'll be going around when people want to talk on these sides to let you use this mic, rather than shifting the microphones around a lot. But these microphones are picking up pretty well even without moving. So if you could, just turn it toward you -- or I'll give you this mic -- and we can take it from there, and I think everybody will be able to hear.

And we will keep track of issues that pop up that may not be appropriate for the particular topic that we're discussing. We'll list them up here, and we'll come back to them later on.

And I think, with that, we can get started. And before we get into our first discussion, I think --

Ruth, are you out there?

MS. McBURNEY: Yes.

MR. CAMERON: Ruth has an announcement about the most important activity of the day.

MS. McBURNEY: For those of you who are planning to come out to my house tonight for the barbecue -- and we're glad that you are -- if you need a ride, we will -- we're going to designate the drivers by placing a red ribbon on their name tags so you can find them and latch onto them.

Meet in the lobby -- the front lobby at about

six o'clock, and we'll get started out at the house at about 6:30 then. It's about a 15-minute ride from here to there. You can actually see this hotel from our upstairs.

So for those of you who have cars and are willing to take riders, please stand. And Monica is going to staple a red ribbon on your name tag, not on your chest.

(Laughter)

MS. McBURNEY: So I know there are some TNRCC folks that are willing to take riders.

MR. CAMERON: See? I knew that I could get us off schedule here.

MS. McBURNEY: That's all right.

(Pause.)

MS. McBURNEY: Stubbs' Barbecue from downtown Austin, one of the old stand-bys, is going to be catering tonight. If you have -- if you've signed up but not paid, stop by the registration desk and do so. There's still room, if you haven't heard about it or have decided to go. So there will be plenty.

Any questions about that?

MR. BAILEY: Hey, Ruth?

MS. McBUR2AllenNEY: Yes?

MR. BAILEY: Will there be any libations at

this thing?

MS. McBURNEY: Yes. We will have beer, soft-drinks and water. If you want anything else, bring it.

MR. CAMERON: You could have stopped after the beer for Ed.

MS. McBURNEY: Yes.

(Laughter)

MS. McBURNEY: I mean what else goes with barbecue?

MR. CAMERON: He got the information he needed.

MS. McBURNEY: I didn't know what kind of wine went with barbecue, so I didn't get any.

MR. CAMERON: Tequila.

(Laughter)

MR. CAMERON: Now, Ruth, we don't need to blue ribbons for all the people who need rides, do we?

MS. McBURNEY: No, we don't need to do that.

MR. BAILEY: It would help us as drivers to know who the riders were. So maybe blue ribbons would be appropriate.

(Laughter)

MS. McBURNEY: Just gather in the lobby.

MR. CAMERON: Okay.

And, Alice, you're driving?

MS. ROGERS: Yes.

MR. CAMERON: All right.

MS. McBURNEY: And come as comfortable and casual as you can.

(Pause.)

MR. CAMERON: Okay. I think we're all set then.

And the topic that we're going to start with -- and it will take us up to lunch -- is issues of mutual concern between the Health Physics Society and the Organization of Agreement States. And we have Ray Johnson with us, who's President of the Health Physics Society, and he and Ed Bailey are going to sort of set this discussion up for us. And I believe Ray is going to start with a presentation.

Is that correct, Ray?

MR. JOHNSON: Yes.

MR. CAMERON: All right. We'll turn it over to you, how ever you want to do it.

MR. JOHNSON: Well, thank you, very much. I appreciate the opportunity to share a few moments here with you this morning as a representative of the Health Physics Society.

Many of you may know that President Keith Dinger attended this meeting a year ago. And it's our

intention now to make this a part of our tradition to stay connected with you folks by having someone from the Health Physics Society plan to join you for each of your annual meetings.

The -- I was mindful as I flew down from Maryland yesterday afternoon and stepped off the airplane and quickly discovered that I was in Texas as the blanket of warm air just enveloped me.

And I was thinking of the business man from Wisconsin who went on a business trip to Texas and, when he got to his hotel, he immediately connected his lap-top and sent off an E-mail message to his wife back home, whose name was Jennifer Jones. And so he typed out her address on the E-mail, and he made a mistake, though. And he mis-spelled and -- he wrote, "Jean Jones at World.Net."

Well, there was a Jean Jones who lived in Minnesota who was the wife of a minister who had just passed away and just that day had been buried. And she opened the E-mail message and gave one look to the message and immediately fainted. And the message said, "Arrived safely, but it sure is hot down here."

(Laughter)

MR. JOHNSON: Now, as -- one other thing that I thought I'd share with you, also: I've now been

President of the Health Physics Society for two months. And even though as President-elect -- many of you know the tradition is to visit as many chapters as possible. And I was able to visit 39 chapters during my President-elect year, and gave a presentation, the same one, at each chapter -- about 35 times altogether.

However, I've not given any presentations for the last couple of months, as I've started my term. And so I was a little bit anxious about what do I say to you good folks today, recognizing all of you as very important persons and, you know, wanting to have some assurance that I would be able to have a good message for you?

So I called up Keith Dinger, who's just now past-president, and asked, "Well, what did you tell these folks last year?" So Keith sent me his notes. And I looked at his notes and I thought, "Gee, they look pretty good." And I thought, "Gee, you know, I wonder if I could use those same notes over again. And would anyone notice?"

And then I thought of the pastor -- senior pastor at a church, who was called out of town suddenly one weekend. And he called in the junior pastor and he says, "Can you cover the service for me this weekend?" And the junior pastor said, "Well, okay. I'll do the

best I can."

So the senior pastor went off. He came back the following week, though. And he sees a member of the congregation, and he says, "Well, how did the service go last weekend?" And the person said, "Well, the service went pretty good, but the sermon was pretty dry." And the pastor said, "Okay."

And he went and saw another member and he said, "Well, how did the service go last weekend?" And the other member says, "Well, not too bad, but the sermon was really pretty boring."

Well, the pastor asked several members, and he got the same answer from all of them. And then he sees the junior pastor and he asks him, "Well, how did the service go last weekend?" And the junior pastor said, "Well, it went pretty good, considering. But, you know, you didn't give me much lead time to prepare a sermon, and I hope you won't mind, but I preached one of yours."

(Laughter)

MR. JOHNSON: Now, the title of what I wanted to talk with you about today is the role of the Health Physics Society as we come into the 21st century.

Now, you might anticipate from this title that perhaps I'm here to tell you what the role of the society had ought to be. In fact, what I'm here for is to invite

your feedback on what you think the society should be or could be in terms of how we might be able to serve some of the needs that you deal with every day.

And so most of my presentation is not really telling you anything; it will be in the form of questions for which I'll be inviting your feedback. In fact, what I'd like to do to conclude -- each of you should have gotten a small, yellow index card like this. And at the end of my presentation, I'm going to put up a slide with five or six questions on it, and I would invite you to offer, if you would be willing, your written feedback.

Now, this is something that I've been doing at the chapter visits -- and some of you have attended those and know this -- and have found it just an incredibly valuable source of insight to be asking for feedback from members or potential members as a way of understanding better where we are as a society, what we could be doing better and where we should direct our efforts for the future. So that's really my invitation for all of you now this morning.

I'd like to start off by just asking if you would be willing to raise your hand if you're a member -- currently a member of the Health Physics Society. How many?

(Pause.)

MR. JOHNSON: Whoa. Okay. Incredible. Great. Thank you, very much.

You know, partly, that was to raise my comfort level a little bit so I could sort of feel like, "Well, I'm in a group of friends here." I did have the idea when coming down here yesterday -- wondering, "Well, gee, I wonder if there will be anyone here that I know." You know, you always feel more comfortable if you know people.

And as I've gotten to talk with a number of you this morning, I realized there are many of you here that I've probably known 25 or 30 years or longer. And so that's helpful.

Now, what I'd like to look at with you now for a few moments would be what I might call the changing roles since the 1950s: The changing role of radiation safety, the changing role of the Health Physics Society and the changing roles of the states. Now, at this point, I'm going to generalize a little bit, and I hope you'll allow me some lee-way, mainly trying to identify broad, perhaps, differences over those 40 or 50 years.

In the early years of the Health Physics Society, I believe, most of the people who joined the society in those years were probably mainly concerned with academic, teaching or people in radiation safety or

research related to biological effects of radiation. Now, of course, we're still interested in those same interests today.

Others who were not engaged in education or research were engaged in the implementation of radiation safety programs. And the significant difference that I might identify, again generalizing: In those early years, there were substantially fewer rules or regulatory requirements compared to today.

Now, what's the significance of that? Well, in the early years, those people who called themselves health physicists would have had training in the science of radiation safety and, in implementing radiation safety programs, would have had to draw upon their technical knowledge of radiation and radiation effects to make judgments about implementing their programs.

Now, how does that compare with where we may find ourselves in the '90s and as we come into the new century? Today, many more of the members of the Health Physics Society are engaged in actually implementing radiation safety programs, as opposed to engaged in education or research, and there are a lot more rules to follow.

And so, today, what I would observe -- and I invite feedback on any of these observations -- is that,

in some ways, there's less requirement for technical judgment today than there might have been 40 or 50 years ago, the difference being that, today, a person with responsibilities for a radiation safety program has laid out for him or her a large number of requirements as rules or guidelines or regulations, either through, you know, regulatory requirements or through what they say they will do in their radioactive materials license.

And so the requirements are much more prescriptive, which means that the primary challenge in many cases today for radiation safety is, "How well do you know the rules, and how well do you implement them," which isn't the same as saying, "How well do you understand the science of radiation safety and apply judgment in the practice of that profession." Now, again, this is generalizing, and I invite your comments on that.

Now, what has happened with states' programs? In the 1950s, the regulations were largely those of the federal agency, the Atomic Energy Commission, now the NRC, compared to today, where much more of the regulatory responsibilities are taken up by agreement states, which is what all you folks are here for. Now, I know there's lots of other differences, but that's one that I wanted to highlight.

Now, here's something I'd like you to think about for a few moments with me. Most of you here are engaged in, you know, regulating, the safe uses of radioactive materials. What I'd like to ask or have you think about, though, is who's actually responsible for implementing programs for radiation safety and would suggest that, by and large, this falls to a category of people who are known as radiation safety officers or radiation protection officers or radiation protection managers.

And I had estimated that there were about 30,000 such people in the U. S. And in looking at the numbers that Greta Dicus shared with us this morning, though, about the number of licensees, I realize this number is probably high and that the actual number may be closer to 20,000.

Anyway, there is a large number of people in the U. S. with the responsibilities for radiation safety programs, identified as an RSO, and they're the ones out on the front line day to day implementing the requirements for radiation safety.

Now, here's the thing that I'd like to invite your thought on: What are the qualifications for these people with the front-line responsibilities for radiation safety? You know, what kind of experience requirements

do they have? What kind of education or training have they had?

One of the questions that I've talked with a number of you about individually is this matter of training: How much training is needed or required or recommended? When you all review a license application, one of the things you look for is to determine that the RSO in fact is properly prepared to take on the responsibilities. And one of the preparations is training.

Well, how much training is needed? This question comes up for me probably several times a week. Why? Because, for about 15 years now, I've been providing training to qualified persons to serve as radiation safety officers and the training that I have developed and provide is a 40-hour class.

Now, people call me up, though, and they say, "Why 40 hours? Where did that 40 hours come from?" And it turns out it's not easy to show in any type of regulatory document the basis for the 40 hours and, yet, it has come to be generally adopted as a rule of thumb as kind of like a minimum requirement.

But, now, is 40 hours enough? Or it may be it's too much. Maybe it's more than is needed.

And what I would notice -- generally, people

who come to my class quite often have had no previous radiation transaction at all. What happens, I'm seeing now, in companies that have radioactive materials licenses -- they know, for example, that their current RSO is leaving and they need to find someone to fill that position. So they look around their staff and they find someone who, in their resume or job title, the word, "Safety," comes up.

And so perhaps it's environmental safety or occupational safety or engineering safety or industrial hygiene, and on and on and on, all kinds of titles where safety may be directly indicated or, at least, implied. And then that person gets to be appointed to become the RSO.

In fact, one of the questions I like to start with when I begin my 40-hour class on a Monday morning is just to ask of those who have assembled for this class, "How many of you are here because you drew the short straw?"

(Laughter)

MR. JOHNSON: And how -- what percentage of classes do you think will raise their hands at that point? It's -- typically a good third of the group will say -- admit that they're there because they drew the short straw. Now, that's -- I find it kind of disturbing

because what it says to me is that the management of the facility where these people are working hasn't any clear concept of what's required for radiation safety.

And so I usually tell my students, you know, that the 40 hours is to prepare them as best we can in that very short time to take on the responsibilities of RSOs and that those responsibilities are very substantial and, as a minimum -- when they find out what they are and they get back to their jobs in the following week, as a minimum, they should ask for a pay raise.

(Laughter)

MR. JOHNSON: And then I tell them, "You know, have your facility call me, and I'll be glad to justify to them why you ought to get more money, because they're asking of you very substantial responsibilities and they may not realize that."

So what's magic about 40 hours? You know, Truxor Gauge users can get a six- or eight-hour course from the Truxor Company. Is that enough for that person to then be listed as the RSO? Well, maybe it is. How about on a broad scope license with a hospital, however? Is 40 hours really enough for the person serving in that capacity? And I would question whether it really is enough.

But I get asked that all the time by people who

say, "Well, do really need 40 hours?" And, of course, in our fast-paced society today, what everyone is looking for is, you know, "Can I do it in one day or two days or three days? Do I really need to devote a whole week?"

You know, the interesting thing? On Friday, when we close our training session, we always pass around a survey form asking for feedback, and one of the comments that comes up virtually 100 percent of the time is, after people have gone through the 40 hours, what they conclude is, "Could have used more time. Needed more time."

Now, that's partly because we're trying to pack an 80-hour class into a 40-hour class, but, you know, we have 40 hours, and it's like this is my window of opportunity to try to prepare these people for the real world of dealing with radiation safety.

And in some ways, it's scary. Why? Because I know, even after the 40 hours and hard as we worked to prepare the people for, you know, dealing with radiation safety issues, at the end of the week, I know there are some who haven't really gotten that. They just quite haven't gotten that, you know.

And how do I get indications of that? Well, you know, we always invite people to call after: "If you have a question, call me up." So, you know, two or three

months later, a guy calls me up and he asks, "Well, what kind of a Geiger-counter do I need to use now to measure tritium?"

(Laughter)

MR. JOHNSON: And I go, "Oh, boy," you know, because we go over and over that a Geiger-counter won't measure tritium and, you know, a few weeks or a few months later, they've lost it.

Now, the other thing we've noticed -- and I'm sure you're all aware of it -- is that people who serve as RSOs today currently have multiple duties of which -- radiation safety may be a relatively small part of a much bigger job dealing with workers' safety issues in general. And I've already mentioned that they come from a whole variety of different disciplines in terms of other training.

You know, I've had people come for RSO training whose backgrounds are in electronics, or electronics repair persons, and they've been assigned to be the RSO. There may also be a Ph.D. biologist who's assigned to be the RSO in a radio-pharmaceutical company. And so they may be very highly trained in another field; they just aren't trained in the area of radiation safety.

Now, what programs are available to support RSOs in implementing their responsibilities as -- for

radiation safety programs? And there are a couple of programs in particular.

The Campus Radiation Safety Officer group has programs specifically oriented toward RSOs. However, when I talked with Bill Shaft, who's currently president of that group, awhile back, he told me that the group consists of around -- a mailing list of around 800 people. Now, I probably shouldn't have put the word, "Members," up there, because they really don't have members; they have a mailing list.

They really don't have an organization in the sense that there's no real officers. There's a person elected as president who serves, as I understand it, from one meeting to the next, primarily for organizing their bi-annual conference. Every two years, they have a gathering which I understand is a very good program.

However, if I understood what Bill told me, the attendance at that is usually only on the order of 100 to 125 people. Anyway, if you compare those numbers with the 20- to 30,000 RSOs in the U. S., they represent a pretty small proportion of all of those folks who share similar responsibilities.

Now, the National Registry of Radiation Protection Technologists has an actual paid membership of 4,000 -- or maybe it's higher than that now -- and many

of those are RSOs, although the organization isn't necessarily oriented toward RSOs. So the question is: Where do these folks get technical support for implementing their programs?

And, by the way, as I raise that question, one of the things that I hear quite often from students who call and ask about issues regarding their license is many of them are reluctant to call you folks as the regulators. All kinds of things come up for them, but one of the concerns is, "Oh, my gosh, I don't want to ask about this because, then, they'll know that I've got a problem with my program," and that, somehow, this will cause them difficulties.

So all of you, in theory, could be supporters of these folks as far as helping with technical issues, but, quite often, they're nervous about giving you a call.

What is the current role of the Health Physics Society? Since many of you indicated that you're members, you could probably state this even better than I could, but what I would suggest for you, again generalizing, is that most of the current members of the Health Physics Society are full-time practicing professionals in radiation safety, full-time practicing health physicists.

Now, what about RSOs, however? RSOs typically would not identify themselves as a health physicist. Who do they identify themselves as? Well, industrial hygienists, safety engineers, and on and on.

Why don't they identify themselves as health physicists? Because, primarily, they would not consider themselves as specialists in radiation safety when radiation safety is just one of many duties that they may have. In fact, most RSOs have not even heard of the Health Physics Society.

For example, about a year ago, I opened a new training center, and the first class had 22 students. So the first morning, I asked the question that I usually ask, and that is: "How many of you know a health physicist or know of the Health Physics Society?" Out of a class of 22, how many people do you think raised their hands? The answer is: One. One person, and it turned out that person called themselves a health physicist.

And so out of that class of more than 20, only one person, which would represent five percent, even knew the words or had heard the words "health physics" or "Health Physics Society." And for the others, they had no idea what those words even meant; they had never heard them before.

So here's the question that I'm going to ask

you to help me consider this morning, and that is: Should the Health Physics Society be providing services to RSOs, services as members, membership services? Should we as a professional society be providing these folks with opportunities for professional development, for education and technical support and for networking? Now, this is recognizing what I suggested earlier, that there is no such program available for these people currently.

Now, in terms of what services we offer, I am kind of identifying my one-year term as president to address the question of, "Who are we?" And I think it's appropriate for any organization to ask themselves that question from time to time, but, now, it's -- we kind of have the incentive of a new century coming up on us, and so it's a good time to look at those questions.

Membership of the Health Physics Society right now is about 6,000 persons, made up, of course, of health physicists, and many of them are regulators like yourselves. Most of the people in the society now I would call practitioners. And, by the way, the word, "Practitioner," is mis-spelled. I apologize, but I don't feel to bad since it's the first mistake I ever made.

(Laughter)

MR. JOHNSON: This is just to check to see if

you all are listening. Thank you.

Now, why -- the reason I say that? If you look in the front of the Health Physics membership book, it shows the demographic breakdown of membership in terms of the category of their employment, and, right now, out of the 6,000 members, about 3,000 are indicating their employment in two job categories. One is radiation safety surveys, and the other one is operational and applied health physics. Now, in my mind, those are essentially synonymous, but they make up a full half of the current membership of the society.

Now, here's a question I -- again, notice these are questions that I invite your consideration of. Who would we like to represent as a society? For example, would we like to represent all full-time professional health physicists, of which the number may be on the order of 10,000 in the United States? And, of course, there are -- we have international members, as well.

Should we represent part-time radiation safety officers, as opposed to full-time practicing health physicists? Should we be opening our doors to people who are not full time, for whom radiation safety is just a part-time concern? And the number there could be on the order of 20,000 or more.

Should we be providing services to regulators?

Now, again, I put down the number of a thousand, and that number's probably quite a bit bigger. If we include RSOs as members of the Health Physics Society, will this somehow change the tenor of our society? Will this change the nature of who we are?

For example, if we include people that are only part-time practicing radiation safety people, as compared to full-time professionals, will this somehow give the society the appearance of being a trade organization, rather than a professional organization?

And if we're seen as a trade organization, the question I'd raise is, "Okay. What's so bad about that? Is that necessarily bad?" You could also ask, "Is it necessarily good?" But, again, I'm inviting you to think about these.

So this brings us to the mission of the Health Physics Society. Should the society be striving to become the primary resource for information on radiation safety and support services for all persons engaged in radiation safety? Do we as a professional society have a responsibility for addressing issues of quality in radiation safety programs in the United States? In other words: Should we have as a mission, as a professional society, a goal of doing whatever we can and that would be appropriate for improving the quality of radiation

safety programs, which we would do by providing membership services?

Now, part of the context of this question is to address the issue of what happens when an RSO makes a mistake. Now, what I mean by that is: What are the ramifications of that mistake, especially if they get picked up by the news media?

And what I would suggest for you is that an RSO who may have limited training and limited experience perhaps would be the -- you know, involved with a program where some type of a mistake was made, potentially involving exposures of people, and this gets into the news media. And does it not then potentially reflect badly on all of us and all of our programs?

So that's really part of the issue. If RSOs make a mistake, what are the consequences of that, not just for them, but in terms of how it affects public perception of all of our applications of radioactive materials?

Now, here's a question that maybe is closer to home for many of you, and that is: Should the Health Physics Society be representing you, as regulators? Should we be striving to include services that would be helpful for your particular needs, either a state's or as federal regulators, the NRC, DOE, EPA?

In other words: Should the Health Physics Society be striving specifically to provide services that would be meaningful for your programs, and, if so, what services then would be most useful? Publications -- for example, you know about our journal that comes out every month, containing largely research-oriented information on radiation safety.

We have training programs as part of each of our mid-year and annual meetings, where we provide what are called PEP sessions, Professional Enrichment Programs, and, also, continuing education lectures. And, of course, every year, we have a week-long summer school which is devoted to a specific topic.

We have meetings twice a year, where presentations are made of interest in the area of radiation safety. Through the membership handbook and through the meetings, we offer opportunities for networking.

The society also has become active in legislative and regulatory activities over the last two or three years. And then a big focus for the society now is liaison, which is one of the reasons why I'm happy to have the opportunity to be here with you today.

Now, what have we done to begin to address some of the areas of need that I've proposed for you over the

last few minutes? All of the things I'll share with you in the next few minutes are new initiatives, meaning things that have been established by the society over the last year or year-and-a-half.

One is: About a year-and-a-half ago, we established a new category of membership called Section Member. Many of you know, currently, we have Plenary Member category, Associate Member, Student Member, Emeritus Member and Affiliate Member. But we now have a new category called Section Member.

Now, a Section Member, to become a member in that category, only needs to meet the requirements for membership established by individual sections. And a new section that was established to take advantage of this category was the RSO section, which stands for Radiation Safety Operations.

So if someone wished to become a member of that section, it turns out that section has no membership requirements other than paying your dues, which are $50. And so it's basically open to anyone with an interest in radiation safety programs.

We've also begun, a year ago, a recruiting initiative. We mailed out about 20,000 brochures, which you all have a copy of, I believe. These were passed out earlier. If you see this little tri-fold brochure, this

is to provide you with an actual copy of the information that we have been sending out to RSOs, many of which are underneath your state jurisdictions. We mailed out about 18,000 of those.

Now, what kind of response did we get? Well, as of the annual meeting in June, we had received back about 140, I believe, paid membership applications. Now, out of 18,000, that may not sound like a very big response; however, in terms of our status of our membership, in fact, that was quite a dramatic influx of membership applications. Now, out of those, about a hundred were applying for plenary membership and about 50 were applying for the RSO Section membership.

Many of you, as members, also know that, going back to November of last year, you should now notice that you're getting a supplement to the journal, which is called "Operational Radiation Safety." This will be included with the journal, and the intention is to publish that four times a year.

We also have been negotiating and are continuing to talk with Radiation Safety Associates, the publishers of the RSO Magazine and the RPM Magazine. Part of our goal as we come into the new century in thinking about the Health Physics Society being a primary provider of information on radiation safety would be to

also have the ownership of the primary publications that are available in this field.

We also initiated, about three years ago, a new focus on liaison with other organizations where we share mutual interest. And, of course, one of those is the Organization of Agreement States. Some of the other acronyms I'm sure you'll recognize are CRCPD, American Nuclear Society, American Industrial Hygiene Association, et cetera.

We've been hosting a luncheon for representatives from about 15 to 20 organizations to join with us at our annual meeting each year for the purpose of identifying areas where we can be mutually supportive, for example, listing each other on our web sites for links, and things like that.

Probably one of the more exciting new initiatives we just approved in Philadelphia in June was the naming of our annual meeting. From henceforth, it will not be called The Annual Meeting of the Health Physics Society, which, for the world, would imply that this is only for health physicists, but, rather, the meetings will now be called the American Radiation Safety Conference and Exposition. And this is intended to be an umbrella for a variety of organizations with interest in radiation safety to come together at the same time.

Another new initiative -- and this goes back, also, about a year-and-a-half -- was the adoption of a byline. How many times, for those of you who call yourselves health physicists, over the years have you said to someone that you're a health physicist or you're a member of the Health Physics Society and realized they didn't have a clue of what you were talking about?

You know, this happened to me just this last weekend. I was talking to some people where I have a summer camp up in Vermont. And one of the neighbor camps -- I was talking with them about my wife and I having traveled all around the U. S. over the last year. And he said, "Well how come?" And I said, "Well, because I'm -- that's the tradition for the President-elect of the Health Physics Society."

And then I realized he totally went blank at that point because I had just said something in another language, and he had no idea what I was talking about. So I said, "Specialists in radiation safety," and he goes, "Ah. Okay." And all of a sudden, those words had meaning for him.

The society, of course, has published a number of position statements, and, working with Keith Dinger this year, we plan to produce several more. We just completed one on low-level waste that will be published

on our web site shortly if it's not there already. We're also working on one right now on clearance criteria for contaminated items.

Some that are already on the books -- and you can look these up on our web site. They're also in the back of the membership book if you wanted to look at them. Our web site is HPS.ORG, and you're welcome to check that out any time.

We also have a number of new initiatives at the international level, largely encouraged by former president Marvin Goldman. And he has been to Russia many times, attempting to help them set up something equivalent to our Health Physics Society. He has been to China, also.

And we currently have kind of an informal agreement to -- for example, we invited the president of the Chinese radiation protection association, Dr. Pan, to come to our annual meeting in Philadelphia. And we've been invited to attend their annual meeting. And, of course, we have several of our members who are delegates on the scientific council for IRPA and involved with IAEA programs.

Now, for those of you that may be looking at your watches and wondering, "How long is Ray going to go along," do you ever look at the speaker's slides and try

to guess, you know, how many more there are to go? Well, a bunch of these are dummy slides, so I actually only have one more to go.

One of the initiatives that many of you may know of and have been involved with are science teacher workshops. This has been a program really initiated by Ellie Casecas in the North Carolina chapter about seven or eight years ago and since has spread across the country, and many chapters have now provided such workshops.

One of the opportunities in these workshops besides providing information -- in fact, I helped with our Baltimore/Washington chapter workshop, where I'm a local member. We did a workshop in March, and we had about 40 -- I guess there were 40 or 45 teachers who attended.

And at the end of the two-Saturday program, a 16-hour program, again, we asked for their feedback. And it was almost unanimous among -- the teachers who attended gave a very similar comment, almost like they had rehearsed it. But the comment was of the essence of, for the first time, how great it is to get good information on radiation. And that -- wow, that just made it all worthwhile at that point.

They were also extremely thrilled that we were

providing each of the teachers with a working radiation meter. Now, most of you know these are surplus FEMA meters, civil defense meters. Some are not in great shape, and some are -- look like they've never been used. But we provided each teacher with a working meter and, of course, some sources so they could demonstrate properties of radiation.

Now, these meters are heavy side-walled GM, so they won't measure alpha particles or beta; essentially, they're really only capable of measuring medium-high-energy gamma. But they can at least demonstrate the principle of distance as a matter of radiation protection.

One of the things you'll notice, it says, "States could help with letters about check sources." We have begun to get some questions from teachers about this little, "Check source," on the side of the meters, and, "Is this safe? Is this okay, to have these meters in the classroom with this radiation source on the side?"

Now, all of you would know that they're exempt quantities, but, of course, teachers don't know about exempt quantities. They don't necessarily know what that means.

So one of the things that I was encouraged to ask of all of you is whether you, as you represent your

stage agency, would be willing to supply for these workshops a letter -- a short letter or note basically to tell teachers that these sources are okay. And I'd like you to think about that. I think a couple of states -- Virginia, I think, has already written a letter like that.

Who's here from Virginia?

MR. RATLIFF: They're not an agreement state yet.

MR. JOHNSON: They're not an agreement state? Okay.

Well, that's something I'd invite your support of as a way of helping teachers, you know, understand what it means to have access to this source and the usefulness of the meter and perhaps even, you know, encouraging their support of the teacher workshop program.

Another program that we've initiated and have not had a lot of activity in yet but I hope -- would invite all of you to take note of, and that is: To look at textbooks and see, "What do they say about radiation," because if you have people in school at any age level, even through college, and you have access to the textbooks, look at them and see what they say about radiation.

And I know, in some instances, you're going to be shocked at what you see. The editors of textbooks quite often are inclined to present radiation from a very definite perspective, and, as you might guess, it's typically anti-nuclear.

The Health Physics Society has also engaged the services of a public relations firm. We work with a lady who publishes a column in our monthly news letter. You can read her column. That's Liz Jemski. And what she does is track legislation for us that would be of pertinent interest. She also sets up meetings for us with congressional members and their staffs.

We've also hired former president Billy Mills to work with us as a legislative liaison, or representative, and he has worked with us. For example, he set up meetings in the last year, had the opportunity to meet with all of the commissioners at the NRC, including Chairman Jackson. And, of course, we met with Greta Dicus several times. And we'll be continuing to do that this year.

Okay. Down to the last slide. This is the one where I would invite your specific response. If you would, find the little yellow card and give me the benefit of a few comments. Your name is not required on this card; that's optional. But it would be helpful if

you would date them. That way, I can keep all of the cards together for this group.

It's also not necessary to write down all of the questions if you just put down, "1", "2", "3", "4", and then whatever your answer might be. Again, I -- anything at all you feel led to share by response to these questions would be exceedingly well appreciated. This information will be summarized and will go to the Health Physics executive committee and the board of directors as a source of exceedingly valuable data on your responses to these questions.

So the first one is -- I'd like you to offer as to why you either are or are not a member of the Health Physics Society. The next question is: "What are your concerns for the Health Physics Society," and, related to that, "What might be keeping people from joining the Health Physics Society," and then, also related, "What services would you like to see the Health Physics Society providing?"

As you can see, there's some overlap among these questions, but, again, whatever you'd feel led to share in that area would be exceedingly well appreciated.

And then a broader question, Number Five: "What are your concerns for the future of radiation safety?" And this is not about the Health Physics

Society and may not be about state or federal programs, but, rather, what are your concerns for the future of radiation safety? And then Item Six is simply to invite you to add anything else at all that you'd like to offer.

So that's all I had to share with you. I'd like to allow you a few moments, if you could, to give me the benefit of your written comments. And then, hopefully, we may have a little time for some discussion and dialogue here as we continue our session up until noon-time.

So that's -- I might just conclude with a closing story, however, and that is that -- I hope the Health Physics Society, as it endeavors to carry out its role and mission, that we might be doing better than the preacher who, after the Sunday service, is standing at the door greeting people as they leave the church, and a boy comes up to him and says, "When I get older, I'm going to give you some money." And the preacher says, "Well, gee, that's very nice. Well, why would you do that?" And the boy says, "Well, because my father tells me you're the poorest preacher we ever had."

(Laughter)

MR. CAMERON: Thank you, very much, Ray. With your permission, I would like to perhaps kick off our discussion with some remarks from Ed Bailey. And we can

address some of the issues that you brought up in your presentation, particularly the one about the relationship between the society and regulators.

Ed, do you want to kick this off for us?

MR. BAILEY: Yes, if I could.

I thought the yellow card was to prepare my talk on, so I had to borrow a second one.

(Laughter)

MR. BAILEY: I have to compliment the Organization of Agreement States; I think that they have found a far better use of lawyers than their normal thing in having Chip facilitate these meetings.

(Laughter)

MR. BAILEY: But, you know, after all the years of legal training and so forth, Chip still -- you know, he can't just divorce himself totally from it. He did mention that we would probably be running late. And, as you know, lawyers typically get paid by billing hours. Now, I don't know if that's the way they work at NRC, but it must be something that's just innate in lawyers.

MR. CAMERON: I think we should just stick to the preacher.

(Laughter)

MR. BAILEY: I have to say thanks to all the Texas staff for putting this meeting together. And I

think, as usual, they've done a tremendous job. And I'm saying that now in case I forget to mention it later, but I don't think we expected any less than what we're seeing here from them in their fine tradition.

I am a little disappointed, though, that -- at the dress at this meeting. When I lived in Texas, the legislature one year introduced a bill -- and I understand it passed both houses -- to make blue jeans the official uniform of Texas, and to have a public meeting or refuse service to anyone not wearing blue jeans was a misdemeanor, except in Travis County, which is where we are now, and, in Travis County, it would be a felony.

(Laughter)

MR. BAILEY: So I hope that for some of these future meetings, we can get out of these. I walked out, and I'm reminded of why I like California weather so much. You go to a steam-room to get this there. You don't get a free sauna.

This past year, I was asked to be the Organization of Agreement States liaison to HPS, and had the pleasure of attending the liaison luncheon. Now, there's many good things about the liaison luncheon, the -- not the least of which is it's a free meal.

So that's one thing about the HPS meetings --

if you haven't been to the annual meetings -- if you're on committees and so forth, there are all kinds of opportunities for you to save your money for the bar, because they keep stuffing food at you. I mean every committee has luncheon meetings. The liaison committee had -- our group had a luncheon, and it was a very fine luncheon.

The luncheon, I think, was very important -- and it was the first one I had attended -- in that we had -- I believe we showed 15 or so organizations that were there. And one of the things that happens there is that each one of these representatives gets up and tells what their organization is and what it does and why it has chosen to designate a liaison to HPS.

One of the things that struck me at this first meeting is that, I would say, probably only two or three people in the room knew that there was such a thing as the Organization of Agreement States and were very interested in the fact that we have an annual meeting and was it open to the public and did we advertise it, and all of these things.

There is a lot of interest in being able to meet with and talk to regulators. I don't know why, but there seemed to be interest.

One of the things that has disturbed me a

little bit over the years -- and I think I've expressed it to many of you -- is that I, fortunately, in the last few years have been able to go to the HPS meetings, both the annual meeting and the mid-year, and I'm a little surprised at how few state regulatory people there are -- and I'll extend that to the federal government, too -- at these meetings. And it leads me to wonder where we're getting our science.

It's a very important meeting, I think, from the standpoint of giving out scientific information and hearing discussions of things like the linear no-threshold hypothesis, and so forth. I would encourage each of you, when you go back to your states, to try to foster support for the HPS, including the local chapters and, maybe, primarily the local chapters.

I don't know how many of you are members, and I -- of a local chapter. I thought about having you raise your hand if you're a member of a local chapter.

But I think it gives you -- if you are a member and you go to the meetings, it gives you a unique opportunity to meet some of the people you regulate, and on what you might consider an informal basis, and get to know them and understand them a little better. And, likewise, they get the opportunity to know you.

We, I think, have tried to encourage

participation in HPS. One of the things that I would encourage all of your program directors to do is seek out an opportunity to be a speaker at one of the local meetings if you haven't been in the last decade or five years or three years, or whatever.

Usually, those -- I've been doing one in southern California now for several years. And, usually, we have a pretty good turn out for it. And it's usually a fairly spirited meeting because, even though we're almost perfect, our licensees sometimes can point out some things we're not quite doing correctly.

I don't know how you'd handle it in your states, and one of the things I'd like to get from you all is some idea on how to encourage participation in Health Physics activities. One of the things, of course, that probably we all can do is fund travel and per diem for local meetings.

In California, we're fortunate that each employee can get up to a certain amount of money reimbursed for membership dues. And if you haven't looked at that, that's a good way to get people involved.

The other thing that I would certainly encourage all of you to do is to attend the national meetings. I know that that's sometimes difficult. We -- as I said, I have been able to go to most of the last few

meetings. This year, however, when we submitted our out-of-state travel package, the HPS meetings were cut out of the approved package. Now, we still anticipate that we'll be able to attend the meeting, but it will have to be worked around a little bit.

This year, the summer school -- we were able to send a bunch of people using our training dollars. And if you had people at the summer school, I think you'll find that, by all the reports I've gotten back, it was a very well-attended summer school, and very informative.

The -- one of the questions up there was -- and some of the discussion was on training. And I think, from my standpoint, that's one of the biggest issues that we face as regulators and that the Health Physics Society in general faces.

We are beginning to see many more people come into radiation protection, by whatever name you call it, that do not have the same kinds of backgrounds that most of us in this room have gone through. We see fewer and fewer people, I think, in our industries who have even had a physics course in college. So we really start in many cases at ground-zero, and I think we need to do some work to improve the training.

Now, I know the Texas program, for several years, has had an annual licensee registrant conference,

and they've jointly sponsored that with HPS. I haven't heard of this year's, but, any way, in the past, they've been highly successful at bringing in --

What, 400 or 500 people to the meetings? Is that --

MR. JOHNSON: Yes, about 500.

MR. BAILEY: Yes. And that -- the ones of those that I have attended were very well received, I thought. And they were -- they also offered the opportunity for this interchange between the regulators, the people we regulate and the other professionals in the field.

In California, of course, we have a lot of federal laboratories. And so, to some extent, our Health Physics chapters -- I don't want to say are dominated, but are highly populated with DOE employees or DOE prime contractor employees. And they bring a different perspective to health physics than we are used to dealing with perhaps in a regulated community.

And I would suggest that that different perspective isn't wrong; it's just that it is just different and, hopefully, broadens my understanding of what people are doing in health physics and what is of interest.

Ray touched on the new title for the Health

Physics annual meeting. And they do want to include organizations -- and we talked about this at the liaison dinner, of having some of these other organizations jointly hold their meetings with HPS.

I think all of industry and government and so forth are cutting back somewhat on the number of meetings that people attend, but this would be -- is viewed as an excellent opportunity to get people together across disciplinary ventures.

I think that CRCPD has been approached on having their annual meeting in connection with the HPS meeting. There are certainly lots of questions that would come up about how you -- how one would structure such a meeting. Whereas we usually get together at CRCPD and this meeting and rant and rave and fuss and carry on with each other and the federal agencies that we work with, that's not the general tenor of the HPS meetings.

And I don't know exactly what would happen if we had our sessions in connection with HPS. There is a possibility, I think, for us to have at least a section meeting or -- I don't want to call it a section, because it wouldn't really be a section of HPS, but to have a rump meeting during the HPS meeting each year of all the people from agreement states that are there or from any of the states and NRC, and so forth.

There is a governmental section of HPS. I almost forgot that. And I would encourage all of you to get involved in the governmental section. Frank Bradley is the chair or president. I've forgotten the exact terminology. And many of you know Frank, who formerly worked for New York. He's trying to revitalize the governmental section.

And in the past, the governmental section meetings have been some of the most energetic and enthusiastic sessions of the annual HPS meeting. So if you haven't participated in that, I would encourage you to do it. And I think it costs you $5 a year more to --

Is that right?

MR. JOHNSON: Right.

MR. BAILEY: Yes. $5 a year more to be a member of that section.

So I think you can tell by what I said that I think it's important that we, as regulators in the radiation protection business, participate in what is basically the radiation protection organization in the United States. And with that, I will hush up. And if you have any questions or comments, I'll be happy to address them.

I would like to add one thing that I forgot that's on my notes here. We want to encourage people to

join the Health Physics Society. We also want to encourage people to become certified. And I -- shortly after I got certified, there was a whole flock of people in Texas that got certified. And the assumption was that if I could pass the exam, anyone could.

(Laughter)

MR. BAILEY: And so I would encourage you to try to get your people into the certification program. We are trying in California now to get a pay differential if you have the CHP. And I'm pretty optimistic that we will be able to get a sizeable monthly pay differential for someone simply for having their certification.

And I would encourage you all to look into that, too. There's usually more than one way to reward people and more than one way to provide incentive for people to do things like that.

MR. CAMERON: Okay. Thanks a lot, Ed.

Dr. Johnson has raised a number of issues for us about the relationship between the Health Physics Society and regulators, and Ed has given us a couple of ideas about the value of that and, also, how that might be done. And I would just open it up to people around the table, using your tents, to ask questions or to add to some of these ideas.

Let's go to Pearce first, and then we'll go to

Bill.

MR. O'KELLEY: Pearce O'Kelley, South Carolina. I just want to make a couple of comments. I also am a member of the HPS and am on one of their committees and also support the organization and highly recommend it.

I would urge you, Ray, not to lower your estimate of RSOs too much, because what you were looking at was radioactive materials RSOs. There's a lot of people out there in accelerators and X-ray programs that also could use a lot of fine information on radiation safety.

Also, I would like to encourage the HPS when they're looking at providing training opportunities for RSOs to also look at what opportunities you can provide training to state radiation control programs; with the decrease in federal funding and opportunities available there, I think, if you could provide some training that was geared specifically to state regulators that we can use, it would not only be very beneficial to us, but may also increase the membership from state programs, as well.

MR. CAMERON: Ray, do you have any question or comment to Pearce's?

MR. JOHNSON: Well, what kind of training might you have in mind?

MR. O'KELLEY: Well, there's a whole list of what the NRC requires of us, but, I think, if we could get together and maybe talk about it, there's a lot of other issues, as well, specifically in areas where training may be missing in X-rays, accelerators and so forth.

But I'd be happy to meet with you folks at the mid-year meeting or before and provide some discussion, as well as -- I'm sure Ed and some of the other members also have some areas where they see that they are deficient and need some help.

MR. CAMERON: Okay. Let's go to Bill. And I would ask you while Bill is talking to, also, think about any follow-ups to Pearce's suggestion about HPS training geared specifically to state regulators.

Bill?

MR. DUNDULIS: Two issues, the easy one first -- or maybe not so easy. One of the biggest obstacles among those of us in state programs who are members of the Health Physics Society: Perhaps some of the larger states can put it in their budgets, but coming from a very small state, like Rhode Island, our travel monies are extremely limited.

And many of us would like to be involved with HPS committees, but it's my understanding that they kind

of expect your employer to foot the tab. And, certainly, for the smaller states, at least speaking for Rhode Island, there's absolutely zero chance of that happening. And if there's any way that -- HPS, you know, might be looking at partially subsidizing, particularly on areas where states might have meaningful input on some of the sub-committees, particularly your government affairs and some of those other things.

My other issue: Having been involved, you know, in state radiation programs for about 20 years and, also, having been involved in local chapters -- and I've actually been a local chapter president -- fortunately, it's an attitude less prevalent, but I still see it among a lot of the "Old guard" in the Health Physics Society, and the people with the state radiation programs aren't real health physicists and aren't particularly bright, because, if they were, they would be out in industry and, you know, they wouldn't be working for state government --

(Laughter)

MR. DUNDULIS: And despite Ed's success -- I tried going the certification route, and I felt there were an awful lot of obstacles placed in my way, things about, well, unwritten rules and procedures. And when I started questioning, people started clamming up.

And I think that a lot of things have changed -- and some of this goes back probably 15 years, but, I think, among the "Old guard", there's still quite a bit of feeling that, you know, people in the state program really shouldn't be part of it and, you know, if you weren't back there in the '50s and you don't work for National Lab and -- on the plus-side, I will say I think -- certainly, Keith and the last few presidents, I think, have tried to bring the olive branch out to the states, but, unfortunately, you can only do so much as an organization.

But I think there's lingering -- I don't know if resentment is the right word, but a lot of the "Old guard," I still get the feeling, don't think that, you know, state regulators are, "Qualified," quote/unquote, you know, to be part of the Health Physics Society.

And anything, certainly, that you as president and, you know, the society can do to remove that perception among the "Old guard," other than waiting for them to die off, I think is certainly going to help.

(Laughter)

MR. CAMERON: Yes. I think that the --

Ray, could you address the issue of subsidy scholarships, as well as the "Old guard" issue that I think we need to address?

MR. JOHNSON: I will. I want to address the "Old guard" issue first because I'm one.

MR. DUNDULIS: I won't hold that against you.

(Laughter)

MR. JOHNSON: No. That -- there is -- some of the sentiments that I've gotten from inviting chapter members to give response to these same questions -- one chapter member pointed out something which I think reflects the sentiment of many others, and that is that the society is an elitist group.

And I struggle with that because I don't somehow see myself in an elitist way. I'm not sure if I even know what it means. But it does have to do with like, "What are the requirements?" And if you look at the membership application for the society, you'll see it's five or six pages long and requires, you know, sponsorship by two current members. This is a big barrier that I'm concerned with as far as this whole issue of, "Who is the society," who do we represent, and whom do we want to represent.

And my concern is that we -- and Ed has said, you know, that the society is the premier radiation safety organization in the United States. Well, that may be true, and I don't want to, you know, minimize that; however, who is it that we're representing? How many

people who are responsible for radiation safety programs are we representing? And it's a relatively small fraction, you know, of all the RSOs in the U. S.

Well, why aren't we representing them? Well, most of them wouldn't call themselves health physicists. So why would they join the Health Physics Society? And so even our name in some ways might be considered elitist because it identifies this relatively narrow category of specialty which, in fact, may not be in tune with the real world. And that's really what I was inviting all of you to offer as feedback.

Now, are we in touch with the real world? Are we representing the actual folks who have responsibilities for radiation safety, which, first of all, includes all of you here in the state programs, then all the people that you issue licenses to who are radiation safety officers.

And I'm really concerned about this, you know, the idea of the "Old guard." Well, who is the "Old guard," and are they still around, even? I mean a lot of the people that are "Old guard" are passing along. And so the -- you know. And, again, maybe I'm getting close to that, too. I --

(Laughter)

MR. JOHNSON: None of us knows. But that's why

I say that we're coming into a new century, and let's take that as an opportunity to take a look at, "Who is it we're representing?"

Are we arbitrarily, you know, putting up barriers to offering helpful services for folks who could use technical support in radiation programs by our name, for example? As the Health Physics Society, is the name really getting in our way of providing a service to folks who deal with radiation safety?

So these are some of the kinds of issues. And I really thank you a lot because that's -- touches right to the heart of one of my main concerns.

Now, support. One of the other possibilities -- the electronic age is now becoming more convenient for all of us. There are a couple of our committees that meet entirely by conference calls. The Public Education Committee, for example has a conference call of all the committee members on the first Wednesday of each month.

So it's now becoming possible to be an active member of a committee without having to commit travel resources. So that may be a possibility that would be helpful.

The society does have some funds that could be used for helping with travel support. It's a matter then

of each committee identifying those needs and making their request through the normal budget process. So there are some possibilities.

I feel really badly when there are helpful, willing volunteers who aren't able to be a part because of limitations on things like travel support. I mean we depend on volunteers, and, without volunteers, there would be no national organization. And, you know, what can we do to encourage and support willing volunteers such that we're able to incorporate the best that everyone has to offer?

MR. CAMERON: Okay. Thank you, Ray.

Let's continue this discussion with Roger, and then we'll go down to David and then back up to Ed.

Roger?

MR. SUPPES: Ohio. I just --

MR. CAMERON: Our newest Agreement State.

MR. SUPPES: A similar question. That -- I was wondering what kind of feedback you've gotten from your existing members about your changing mission, the areas of outreach that you're -- the questions you're asking of us. What kind of feedback are you getting from your existing membership about those issues?

MR. CAMERON: Go ahead, Ray.

MR. JOHNSON: Okay.

Well, again, the most helpful feedback has been the responses to the questions that I put up here on the slide. Some of those responses are still being tabulated. I've had about 1,300 of these cards filled out over the last year. So it's an incredibly valuable database which I'm hoping all of you will add to today.

But, for example, in the area of why a person might either be or not be a member of the society, the most common response on why people would choose to be a member is identifying themselves as a professional in radiation safety and the Health Physics Society being the organization that represents those interests. So that's the most common response.

In terms of why people are not members, which I'm very concerned with, about that, there's a variety of responses, but cost is probably the biggest factor. The current dues for the society are $75.

Now, when ever I see concerns raised about cost, however, what comes to my mind is not necessarily, "Well, gee, $75 is too much," but, rather, "Too much for what's being offered." And so then the concern I have is, "What are we providing as meaningful service that would warrant the expenditure of the $75?

Now, one of the things that has come up, though -- and I'm afraid this is somewhat more related to

state programs and, hopefully, you won't hear this in too negative a way. But if there's one person in the office who's a member and they get the publications, then others in the office share those publications; therefore they don't need to be a member.

And, you know, it's like, "Well, okay." And, you know, that's true. And that's a way of saving the -- you know, the dues as an individual member. But then that kind of gets back to what I would consider, really, a broader concern, and that is one of what does it mean to be a professional?

In other words: If I'm an expert or a professional in radiation safety, what does that really mean? I mean is it, for example, like an automatic extension of professionalism to be a part of the related profession society? And, you know, is it a matter of money, really? So I think that kind of opens to other issues or questions that I don't really have the answers for.

MR. CAMERON: Okay. Thank you, Ray.

David?

MR. SNELLINGS: I've been a member of the society since, well, a long, long, long time ago. And I think that I agree with the, "Elitist," comments. And I think it goes forth into program agenda, agenda in the

journal, and I think there needs to be more, as you said -- and I've got it in my book here -- "Real-world applications."

You know, there's -- it is so research-oriented into the basic science -- we need that. Definitely we need that, but there also has to be some practicality to it. If you start getting the RSOs of the world to come to your meetings, they'll be there for one meeting, and that's it, you know.

And I see some true HPs along that line, also. They go to a meeting, and, you know, there's nothing there for them except the real-world or -- the basic science research from the national labs. And there's a preponderance of national lab participants, and no real-world application.

Now, I see us getting a little better with you know, with the publication, with the Operational Radiation Safety, but I think we really need to devote more effort to making it more real-world.

MR. CAMERON: Okay. Thank you, David.

Let's go to Ed and then over to Ray.

MR. BAILEY: There was some comedian or something that said, "Any organization that would have me as a member of it, I wouldn't join." The elitism thing -- I think it can very easily be perceived when you

go to certain meetings. The flip-side of that, I think, is that, unless the real-world people get involved in it, it will continue that way.

MR. JOHNSON: True, yes.

MR. BAILEY: It's interesting how few papers there are presented by state radiation control program people and how many papers a leaking source at a national lab can generate -- one leaking source -- or one lost source at a national lab, how many papers that can generate.

And I doubt that there's a single one of you that didn't have a lost source last year that you -- if I would take the time and you would take the time to submit those abstracts, I can't guarantee it, but I imagine the program committee would accept every one of your abstracts because there are a lot of people that want some very practical information.

So the, "Elitist," thing -- you know, I believe those who feel that there's an elitist attitude have to get in and change it into an organization that -- then they can become the elite.

(Laughter)

MR. CAMERON: Okay. Thank you, Ed.

Let's hear from Ray Paris and then Roland. And Pearce wants to say something. And I don't want to

neglect the audience. We are coming up towards our lunch time.

Ray?

MR. PARIS: Ray Paris, Oregon. There are three things I think we ought to look at, perhaps. From -- do a little research on what back-to-back meetings might entail with this meeting.

I know that, traditionally, the Health Physics meetings are in the summer time. It might take some type of logistics, but I think it's -- for us, at least, in Oregon to go out of state, it would be better to go -- to get the approval to go to a meeting, versus to -- go to one meeting, versus go to two. And the -- cost-wise is mainly the travel, not when you're there.

So a few more extended days for a meeting is probably do-able. So look at that.

There are -- I belong to three -- you know, the CRCPD talks about training. Health Physics Society talks about training. The Organization of Agreement States talks about training. So there's, in the new technology, video-conferencing and tele-conferencing, I think, needs to be looked at.

The states need -- I know this is materials-oriented, but Health Physics Society could perhaps be involved in X-ray. I agree with Pearce.

There's no really formal training for basic X-ray techs. So those are some comments.

MR. CAMERON: Okay. And one thing to -- before we go to Roland, one thing to be thinking about is: There's a lot of good ideas coming out here, some that could be pursued by the Health Physics Society and, perhaps, some pursued by individual states, and some by the Organization of Agreement States. You might want to give some thought in terms of whether there's any sort of institutional initiatives that you want to pursue on all of these things.

Roland?

MR. FLETCHER: I have to admit that I'm one of those guilty states that allows the members of my staff to review the news letter and the journal, but I do that for a lot of reasons. And one of the reasons is: A lot of people on staff are not aware, familiar or otherwise with the Health Physics Society, period. And there's a lot of good information in those journals and news letters that could get them interested.

Now, I know I have three bona fide -- well, one retired -- two bona fide members of my staff who are full-fledged members of the society, but I think it acts as a way of keeping things that are happening in the society in front of staff. Staff is not going to -- I

mean look around. We've got state employees here. State salaries do not say, "Go pay $75 to be a member of an organization."

So in order to encourage that kind of participation, we need to at least begin showing the kinds of things that could benefit. And I think -- I believe it's helpful to educate my staff, at least, on what the society is doing by making these items available.

MR. CAMERON: Okay. Thank you, Roland.

Let's go to Pearce and then to the audience. Steve is standing there. And we'll see if we can break at the point in time for lunch here.

Pearce?

MR. O'KELLEY: I just want to comment on the, "Elitist." I'm not so sure if the elitist attitude is there or not or whether it's a perception on some of our parts that may be intimidated and overwhelmed by some of the science we see coming in the journals and in the presentations and the papers.

As -- and as a person who has, I guess, recently been attending the annual meetings, I want to say that I haven't felt the least bit intimidated or felt like I was treated as a second-class citizen by any member or anybody at those meetings. I think I've been

welcomed with open arms.

I had been at the first meeting asked to help participate in one of the committees with the HPS and, basically, was asked to, "Please come help us. Please join us. Please contribute." And I think, if we quit looking at something -- everything looks different when you're looking at it from outside the fence. And I think, if you'd get inside the fence, you might find out that that attitude might not be as prevalent as you think.

And I encourage you, at least, to give it a shot before you assume that there's some sort of looking down their noses at you, or so forth. And, you know, I -- and, also, don't be intimidated if you're not certified, because there are a lot of people that aren't certified that play a major role in the organization and have a lot of input on what goes on.

And as Ed said, you know, until you get more people in there, you're not going to be able to maybe make some of the changes that you want to see the organization make. It's much easier from inside than outside.

MR. CAMERON: Okay. Thank you, Pearce.

Let's go to the audience for comments now, and start with Steve.

MR. COLLINS: Steve Collins from Illinois. Ray asked if there would be -- well, what I heard him say was maybe could he get a letter from each one of the agreement states about these check sources on the sides of the CDB 700s. And it's a little bit difficult to find enough information for some states to feel comfortable with sending out such a letter.

The source is usually natural uranium, apparently, about a-tenth micro-Curie, or it's radium D&E, about a 20-year half-life with a five-day [indiscernible] beta emitter, one or the other -- again, about a-tenth of a micro-Curie, except they were manufactured so many years ago, it's less than half of that left probably.

And that's about all we can find: The details on chemical form and how it's bound and fixed to make sure it won't come off and wouldn't be easily ingested or, if it did, it would be excreted instead of absorbed. But a little bit of information like that, some of the regulators would like to see.

If it's natural uranium, it's probably under the general license, as opposed to exempt quantity. If it's radium D&E, then, depending on how your state regulations are written, it may be an exempt quantity. Under that last little footnote at the bottom of the

table that -- beta emitters less than a certain amount are exempt.

But that's about all the information I've had. Surely, one of the states has maybe collected more information that has the details. If that state could share it with the others and, maybe, one state volunteer to draft up a letter, we could get that resolved for Ray in a short order.

MR. CAMERON: Okay.

Joe, you have a quick clarification?

MR. KLINGER: Yes. I spent quite a bit of time on this, working with Dave Miller. And there was a letter that went out from the State of Virginia. And I contacted the person and said, "Did you have some information that these sources were exempt?" And he said, "Oh, yes. Everybody knows they're exempt." And I says, "Oh, really? Well, what are they?" And he says, "Well, I'm not sure."

And so -- and then people thought that they were cesium, and they thought they were radium. So I put a lot of work into it and looked through the RMRM and all of these sources, and it has been a real problem.

So because of the difficulty of coming up with the information, I think what the HPS is going to do is -- when they send this information out with these

survey meters -- they have the thing about the DOT exemption and all of this -- there's going to be an item in there that says, "Contact your state radiation control agency if you have any questions about licensing."

MR. CAMERON: Okay. Good. Thank you.

Ruth?

MS. McBURNEY: Ruth McBurney, Texas. I just want to echo what some of the people that do participate in the Health Physics Society were saying -- Ed and Ray and Pearce. I certainly don't find it intimidating to be among all those theoretical folks, and I don't consider myself a theoretical health physicist.

And participating both on the American Board of Health Physics -- and then I was encouraged to run for office in the Health Physics Society and then, also -- I mean for the board and then, now, for office. So there are people who are in state regulatory programs participating at those levels. And I think it's really important that we get our slant on things and our voice in there.

So -- at one time this year, there were actually three state regulators on the board of directors of the Health Physics Society: Dave Allard, who is the new director in Pennsylvania; Nancy Dougherty, who was with the Colorado program -- I think she has gone to

something else now; and myself.

So I think it's really good to have that aspect of health physics talked about and the participation in the Health Physics Society.

MR. CAMERON: Okay. Thank you, Ruth.

Will the society accept lawyers?

(Laughter)

MR. CAMERON: That's a test of some sort, I guess. But --

MR. JOHNSON: In what capacity?

(Laughter)

MR. CAMERON: All right. Let's go to Ken for a final comment. And then I think we'll break for lunch, and then we'll be on time.

Ken?

MR. WEAVER: Ken Weaver, Colorado. The Central Rocky Mountain Chapter of the Health Physics Society would love to see you in Denver in June 2000. And if you do have something that you think of that you want to see or do in conjunction with that meeting, let me know here now, because we're still doing some of the planning things. And so just let us know.

MR. CAMERON: Okay. Thank you.

I'd like to thank Ray for his presentation and initiatives that he's trying to explore.

Thank you, very much.

(Applause)

MR. CAMERON: Okay. Let's be back at 1:15. And don't forget to get your yellow cards up here to Ray.

MR. JOHNSON: Right here.

MR. CAMERON: Right there.

(Whereupon, at 11:58 a.m., this meeting was recessed, to reconvene at 1:15 p.m. this same day, Wednesday, September 8, 1999.)

A F T E R N O O N S E S S I O N

(1:20 p.m.)

MR. CAMERON: Okay. Everyone, welcome back from lunch. We're going to get started now, as soon as the din dies down a little bit.

(Pause.)

MR. CAMERON: For all of you who are presenting tomorrow, if you have a computer -- if you have your presentation in electronic form, if you could, give that to Marilyn, who's right up here. And Marilyn can load it onto the computer, and it will be all ready to go for you.

And for those of you who know people who are making presentations, you might want to tell them that. I know that Don Cool, for example, is on the phone back to the NRC headquarters. So if you could, just spread that word around to give those -- and here's an example. We should take a picture of that, I guess, this -- David handing a disk up here.

All right. Now, we're going to go to, I think, a provocative presentation by Dr. Bob Emery and, also, Mike Charlton from the University of Texas Health Science Center. Now, they're going to start their presentation, but there's an interesting quiz that they've given you a copy of. And if you could, sort of fill this out while

they're beginning their introduction.

And there's going to be a prize for the person who gets the most points. And I think it's pretty self-explanatory, and since -- I won't take a shot at Bailey and the rest of you by saying, "Even for agreement state regulators," since he has been so nasty about attorneys.

(Laughter)

MR. CAMERON: But I think it's pretty self-explanatory. But if you could go through and speculate on what the most frequent violation issued by each of the following agencies -- and then there's some tie-breakers down here -- then there will be -- the prize, I think, is a membership in the Health Physics Society.

(Laughter)

MR. CAMERON: All right. But, at any rate, I'm going to turn it over to Bob and Mike.

DR. EMERY: Do I need the microphone, or can you hear me?

MR. CAMERON: Pat, is that -- can you hear?

DR. EMERY: I'll burst into song later.

Well, thank you, very much, for the opportunity to be here. Mike Charlton and I have been working on this project for several years, and I'll explain in a

little more detail on where it all came from in a second.

But I hope that, by the end of this talk, you will leave here at least carrying your head a little higher once you realize that the radiation safety business has perhaps the best routine surveillance and compliance program in the country and there are some real opportunities that rest there. And our objective in being here today is to make you aware of that and, also, to make -- point out some opportunities with regard to preventive education.

At the University of Texas Houston Health Science Center, we are fortunate in that we have the only school of public health in the state of Texas. And so we have some involvement in academic activities, and we also do continuing education training.

And we do a 40-hour radiation safety officers' class, as well. And, in fact, those are the most enjoyable courses because that's where the rubber meets the road; that's with the real people who are dealing with the issues day to day. Usually, when they're teaching students, it's more of a forced march; they come in, and they're trying to get their credit and get out of there.

But the people that are going through the CE courses are quite interested because their jobs depend on

it. And one of the things that they were interested in at the end of the course was to say, "Okay. Well, what are the common violations that are out there?"

And so that seemed like a pretty simple question, and I think all of us could intuitively create that list, but this peaked our interest. And so we started soliciting information from the Texas Department of Health Bureau of Radiation Control. And they collect a lot of data, but it turns out for a number of reasons that the data's collected but it's not presented in a way that might be more useful to the regulated community.

So we worked on this project. And the Bureau is to be congratulated for their cooperation. It has really been a mutually supportive operation. To be quite frank, it's because we got publications out of it, but, also, that -- I think it has been an educational experience, both for us and for the Bureau, as well.

So we welcome the opportunity to be here. We have books -- we've made up some summary books. And I'm going to ask for your help at the end here. We had enough books to give to everybody around the table, and there are six or eight extras setting there right on the end of that table there.

My boss almost had apoplexy when we requested to use the color printer for a number of days to print

this stuff out, so I'll ask for your help later on keeping my job with that. But we'll talk about that later. So --

(Laughter)

DR. EMERY: Okay. Let me see if I can run this.

Okay. So your -- the title of our talk is really fancy, and it says, "Institutional Health and Safety Program Outcomes as Assessed by the Compliance Activities of Principal Regulatory Authorities." And you may be asking, "Why in the world do we have these guys from Houston coming up here to talk about principal authorities for a radiation audience?"

And our objective here is to compare and contrast the different methods that are used to ensure or to measure compliance and to look at the advantages and disadvantages of these. And I think that we'll be able to demonstrate that the radiation safety profession really holds a leadership position in this arena.

I think we'll be able to reveal the tremendous potential for preventive education. And, in fact, we'll have a little fun as we go along, because I encourage you to fill out your form there and to just guess what you think the most common violations are, because that's a real operational question that people have day to day,

and, I think, is something that is useful for you to think about for a second, to say, "What do you think the most common violation is from various regulatory authorities that might impact us?"

If we take kind of a step back and look at it philosophically, if one wants to look at a health and safety program, how is it that they measure its effectiveness? How do we know if the health and safety program is doing its job?

One way is something called a systemic measure, and those are measures which are the ultimate program outcomes commonly referred to as the body count: How many people died, how many arms were lost, how many fingers were lost, or something like this. And in the official terms, that would be the number of illnesses, injuries and fatalities.

There's also a whole other set of measures that one can use which are called organic indicators. And these are indicators of program design and implementation, and they may take the form of the number of observed unsafe conditions or practices or behaviors or, maybe, regulatory compliance inspection outcomes. Or there's a lot of work now being done in the area of attitudes, measuring the attitudes that individuals have towards safety.

Now, if we go back to one of those systemic measures, the classic one that's used in the health and safety business is what's called the OSHA 200 Log, which is that form that you're required to maintain as just the count of the number of specified occupational injuries, illnesses and fatalities and the like -- it's specified occupational trauma. And that log has to be maintained, and, if you have over so many employees, you have to submit it, and on and on and on.

For those of you who may not know, you'll often see that it will say, "OSHA 200 Log, or equivalent." And the reason it says, "Or equivalent," is because, in fact, you can keep the information on a first report of injury form, and that is considered to be the equivalent.

But what good is that measure if the rates are low? As a matter of fact, one of the things we do when we give this talk sometimes is ask people to record the number of OSHA 200 Log-related radiation events that they've had in the past year or decade -- or millennium.

(Laughter)

DR. EMERY: And it's usually not too high there. I mean there are some events that have occurred, but the point is that, on that systemic outcome measure that's traditionally used for other health and safety situations, this is not the effective gauge to use on

your dashboard. Just think about that for a second.

Management has a lot of things they have to deal with. So they're driving this car, and they have these gauges they're looking at to decide how things are performing. And if they're using the OSHA 200 Log as a measure of how their radiation safety program is going, maybe that's inappropriate. So we have to look at some other measures instead.

So we switched -- then management switches to these organic performance measures, and these are possible precursors or indicators of systemic outcomes. And the radiation safety business relies on these all the time in the forms of surveys or audits or some other measures that may be made.

Also, we can use regulatory citations of violations as one measure. And in the absence of these systemic measures, we have to rely on these organic measures, and they're commonly used as performance barometers.

Now, the data that I'm going to share with you in a million different ways, because we sorted it because we were concerned about the measures for institutions, colleges and universities. So for those of you who are familiar with SIC Code, we sorted on SIC Code 8221, but we could have sorted on anything. And I encourage you to

do this when you go back if you're interested. Some of this data's readily available, and you can sort it any way you want it.

But let's go back to performance barometers for a second. i was in Madison, Wisconsin, which is a beautiful city, and I was giving this talk. And prior to my talk, there was a woman who got up and was speaking about benchmarking and how it was important to have all this data.

So she said, "Envision this scenario: That you're waiting in the lobby, and you get on the elevator and in walks the president. And the president's on the elevator with you. And now you're going to ride ten floors, and the president turns to you and says, `So how's safety going?' And, typically, you would wait a few floors and you would probably respond, `Well, fine.' And then that would be the end of it.

"So that was a real missed opportunity. You should be able to blurt out some peppy little bromide about the safety of cost-reduction per square foot," or some kind of thing. I don't know what it was.

Well, when I got up to talk, I said, "Well, lady, that's fine and dandy. But usually what happens when I get on the elevator is the boss turns around and kicks me in the shins and says, `Gee, Emery, you just got

two NOVs. What the heck do we pay you for?'"

(Laughter)

DR. EMERY: So I think that we kind of need to take a step back sometimes and realize that this is in-the-trenches measure that's used for a lot of practicing professionals and some people's careers are sometimes affected by the issuance of these things. For what it's worth, they may be very well deserved.

So if we look at institutions, those things -- we're just going to use colleges and universities, we are evaluated in this manner by a number of major authorities. And those take the form of the fire marshall, the food inspector, EPA, OSHA and the BRC. And I put those in order for a reason: Because we're going to go from what we consider the poorest measurement of outcomes to the best. Okay?

So this gets us to our first slide here, and each one of these will be in the same format. The first slide is going to tell you a little bit about how their inspection process works, what some of the biases are. And then you can guess what you think the most frequent violation is.

Now, the Texas State Fire Marshall has a rank system. That means that, if there's a reported event -- there's a fire or something like that -- they have to

inspect. And then it goes down this tier all the way down to routine inspections. But because they don't have a lot of resources, they rarely are able to perform routine inspections.

So with these limited resources, that means that their inspections are essentially limited to complaints. Now, that has some bias inherent to it because, essentially, what they're doing is inspecting the places that always have complaints tied to them.

The other interesting thing that the state fire marshall does is they don't use a standard assessment tool; they don't use a survey form, the thing that we're used to. They go in and claim that they're -- that they want to be unencumbered and just observe things and then record the deficiencies that they note. Okay?

So, in fact, the data may be only indicative of poor programs. And what's interesting is that the list that I'm getting ready to show you is not based on any data; it's based on pure intuition, where the state fire marshall sat down and said, "Here's the most common one."

Now, before I flip, what do you think?

VOICE: Extinguishers.

MR. DUNDULIS: Either blocked fire exits or no set exit.

DR. EMERY: Okay.

MR. BAILEY: Outdated extinguishers.
DR. EMERY: Outdated extinguishers.
MR. WHATLEY: Room capacity or area capacity exceeded.
DR. EMERY: Exceeded room capacity.
Anybody else?
MS. TEFFT: Exit lights out.
DR. EMERY: Exit lights out. Okay.
Well, let's jump forward here. Now what I want to see is the show of hands of people who got Number One right when we flip forward here. Okay?
The most frequent one is the failure to test and maintain alarms and lights. How many people got something akin to that?
(Pause.)
DR. EMERY: Okay. Well, that's okay. That's sort of about half the people already. Okay.
Let's run down this list very quickly: Failure to test and maintain alarms; the doors don't close; maintaining door-closing devices; doors propped open -- there's a lot of door-related issues here -- failure to schedule fire drills; improper storage of chemicals; inappropriate door-locking devices; inoperable smoke-detectors; extension cords; and obstructed hallways.

Well, what does this tell us? Number One is: That's all readily tangible stuff that can be easily corrected. And you can go around and, if -- you could hand this to your fire safety guy and say, "Look, make sure we've got this taken care of; If we don't do anything else, address this short list." Okay?

But what are some of the shortcomings here? I have no idea what -- the truth is: I don't know how frequent the first one is. I don't know if this Top Ten list represents 10 percent of all the problems or 100 percent of all the problems; it's difficult to say.

So there's some value in having an intuitive list, but it would be nice to sort this out; especially since you have an agency that goes out and does the inspections, if the data were collected and provided back for preventive activities, it would provide a great value and close the loop.

And this is something we've seen in our research over and over again. Regulatory agencies are great at collecting data, but, once it gets there, there it resides, and it very rarely gets provided back in a way that can be used for prevention.

Okay. How about food sanity -- is there anybody here from Houston, by the way?

(Pause.)

DR. EMERY: Nobody from -- there's a famous guy on TV, Marvin Zindler, down there. And he goes and does food inspections. So every time I do this talk in Houston, everybody immediately blurts out that the most common food sanitation issue is slime in the ice-box --

(Laughter)

DR. EMERY: -- no matter -- because that's what he -- that's his byline there.

Okay. How does the Harris County health department do their inspections? The same deal: Ranked system, from complaints all the way down to routine.

But, again, the resounding theme here is that limited resources impact the ability to do routine inspections. So the good thing is that they use a standardized assessment tool. But the data is not assembled or analyzed in any objective manner. So they've got a nice check-list, and they fill it out, but it goes in a file, and that's the end of it from there.

Again, common problems are going to be based on intuition only, but the interesting thing is that they create this list and make it available on their web page. So that's kind of nice.

So what do you think the most common food one is?

VOICE: Poor sanitation.

VOICE: Washing and not using gloves.

DR. EMERY: Hand washing, sure.

VOICE: Food temperature.

DR. EMERY: Temperature, yes.

Anybody else?

MR. BAILEY: Lack of hair restraints.

DR. EMERY: Hair-nets. Okay. Improper storage temperature, things like that. Okay.

VOICE: Expiration dates.

DR. EMERY: Expiration dates exceeded. Okay. Let's take a look and see. By the way, if you didn't get the first one right, you're not out of the running. Keep filling them out, because the prize is overwhelming, by the way. It's --

(Laughter)

DR. EMERY: Okay. The -- we're going to get your picture -- who ever's the prize winner, we'll get your picture, too. And we'll put it on some obscure web page that no one will be able to find, but you'll be out there.

(Laughter)

DR. EMERY: Okay. The most common violation is food stored and displayed at the wrong temperature --

Which is you right there. Right? You got that.

Okay. Hand-washing, not sanitizing utensils, rodents and insects present, toxic items not properly stored or labeled, hand-washing in toilet facilities, food not covered, improper water source, wrong temperature, improper plumbing and spoiled food present. Again, pretty simple stuff.

You could take this short list, hand it to somebody and say, "When you do your regular reviews, make sure you've got this stuff squared away; Wash your hands," and stuff like that. But, again, because of the lack of the data, we don't know what this represents. Is this all of the list, the tip of the ice-berg, or what's going on there? So we're getting a little closer.

Okay. Now, EPA. EPA is a gigantic organization. And they have a ranked system from reportable events down to routine, but, again, the same deal, the same old song: They don't have enough people or resources to go out and do all these inspections.

Now, we are interested in -- because we're looking at colleges and universities, our major concern had to do with hazardous waste, hazardous chemical waste there, because -- there are some other areas that you can be concerned about in our setting, which might be air releases, underground storage tanks and stuff like that, but we wanted a sort on the data with hazardous waste

because that was our major concern.

Now, the interesting thing -- I don't know how many people here deal with hazardous waste. But you can -- depending on how much stuff you generate, you're classified as a large quantity generator, a small quantity generator or an exempt small quantity generator.

Well, because they have limited resources, the inspection data that I'm getting ready to share with you is essentially biased toward the large quantity generators, or the treatment, storage and disposal facilities, because they don't have the resources to get down to the people that are the smaller-volume stuff, like us. And so, again, because this -- most of this is driven by complaints, this may be indicative of only the poor programs.

I think I've got some dollar figures associated with this one. Here's a little more data. We're getting a little closer, because we've got a little more stuff now. Over this 10-year period -- all the data I'm sharing with you is over a 10-year period, from '87 to '97. There were 328 institutions that were inspected. Over that period, 700 violations were issued, for a total of $1.6 million in fines. Okay?

Now, what do you think the most common violations associated in this setting are?

MR. DUNDULIS: Record-keeping.
DR. EMERY: Certainly, record-keeping.
MR. BAILEY: Pollution control.
VOICE: Improper storage use.
DR. EMERY: Improper storage.
VOICE: Chemical releases.
DR. EMERY: Chemical releases.
VOICE: Monitoring.
DR. EMERY: I'm sorry?
VOICE: Monitoring.
DR. EMERY: I didn't --
VOICE: Inadequate monitoring.
DR. EMERY: Oh, inadequate monitoring? Okay. Let's take a look here and see.

All right. Unfortunately, the way the data's collected, this is the best we can do. That's unfortunate. All we can get is the general data categories, which consist of something like transportation.

Now, I don't know whether that means there was an open 55-gallon drum with stuff slushing out the back in a pickup truck or whether it was an improper DOT label, which I suspect it was, but, nonetheless, it seems that there are some opportunities for improvement in this data collection in a way to provide it back for

prevention, for what it's worth. But we were able to get some other stuff out of there, and so that's pretty good.

How are we doing so far on guessing on this stuff? Are you guys getting in the ball-park?

(Pause.)

DR. EMERY: Yes? Okay? All right.

Now, what about OSHA? Okay? OSHA has got a ranked system. Their ranked system starts at fatalities and goes all the way down to routine inspections. As a matter of fact, they have to inspect when something called a Fat Cat occurs -- Fatalities or Catastrophes. A catastrophe involves three people or more.

Again, the limited resources impact the ability to do the routine inspections. I don't know what the region number is out of Dallas for OSHA here.

Do we have anybody from OSHA here?

(Pause.)

DR. EMERY: Because, if you were to ask the regional director in Dallas how many routine inspections were performed last year, the answer is zero because they're so swamped with some of the other concerns there. Okay?

Now, the neat thing about this is that this data's available right on the web. You can go to OSHA.Gov, you can type in your SIC Code, and it will sort

out and give you all the data you want. With the other ones, it takes a little more digging to get to.

So we're going to sort on SIC Code 8221. The data may be biased toward the bad actors, keep in mind. Another thing is: Public institutions are not represented. Why? Because they're exempt from OSHA. Okay?

Now, I think I've got some supplemental data we were able to get out of here. Over the 10-year period, there were 10,254 violations, but what's interesting is that, at least, OSHA assigns a severity level to it, and about 50 percent were considered to be serious. Okay? So that's giving us a little more information.

Another little nugget is that the initial penalty for these total is 2.1 million, but, in fact, when the checks were written, it was only for 1.3 million. So if you're budgeting for violations, you can budget for a 38-percent reduction and continue on your way, guessing that you won't have to pay for the total initial assessment. I'd just make management aware of that.

(Laughter)

DR. EMERY: Okay. One other little supplemental thing we can do here is that -- unfortunately, when you sort this data, each violation --

it's tied to its citation but all the way down to the sub-code. So, in fact, it's too detailed. Okay?

In other words: The first one -- if you sort it, the first one will be all the way down to, you know, 29 CFR 1910(e)(5), (7) or (3) or something. So you have to kind of throw these things back together, re-congeal these things, to at least make some sense out of them.

But if we take the top 25 violations and throw them back together into with the 10 main categories, we can now look at, "What percent do they represent of all the violations issued?" And it runs between 30 and 40 percent, somewhere around there.

So this list, this kind of Top Ten list, will represent 20 to 30 to 40 percent, depending on the year, of all the violations issued to this work setting. Okay? And that gives us a little flavor for what tip of the ice-berg we're looking at.

What do you think it is? What do you think the common violations are?

MR. DUNDULIS: HazCon, right to know.

DR. EMERY: Without a doubt, every person, myself included, jumped on that like a duck on a june-bug. And I say that for Mel Fry because I miss that North Carolina term, "Like a duck on a june-bug," because I was in North Carolina.

I thought that, too. I immediately thought that it would be HazCon. But it's not. What do you think it is?

MR. FLETCHER: Poor personal safety standards.

DR. EMERY: I'm sorry?

MR. FLETCHER: Poor personal safety standards.

DR. EMERY: No.

MR. FRY: Signage.

DR. EMERY: No. This is -- by the way, this great question is on here so that nobody gets the prize.

(Laughter)

VOICE: Electrical sign posting.

DR. EMERY: Somebody got it. Not, it wasn't signs. Electrical -- it was a violation of the electrical standard. Amazing. Who would have thought that? The take-home message here says that, "In this particular case, are we putting our resources where the major problem is with regard to compliance?"

You talk to any health and safety person in the institutional setting about HazCon -- we beat people's brains out over HazCon. Yet, lo and behold, 11.8 percent of all the violations were tied to the electrical standard. Probably to do with the ubiquitous use of extension cords and those other things. Right?

But okay. A couple -- toxic, hazardous

substance, machine-guarding, means of egress, protective equipment, walking surfaces, first-aid, fire protection, environmental controls which -- I don't know what that means, by the way; I'm assuming that's the lack of local exhaust ventilation -- and hazardous materials. So over the 10-year period, it's 34-percent of the total. Okay?

All right. So this is taking you from a compliance organization that relies totally on the seat of their pants all the way to an organization that records data and has it available in some way to feed back in the form of prevention.

I will now present to you -- and Mike Charlton, as well -- perhaps the best data-collection mechanism that's out there in the public health arena. And I think you'll see that there are all sorts of great things that can pop out of this.

One other thing we can do with the OSHA data is that -- this 3-D graph will show that, if these are all the violations and this is time, although the relative position may change within, the top ten always stay the same. It's always the same stuff.

And when we get to the Bureau of Radiation Control stuff -- or the NRC-related stuff, if you will -- even though -- the reason we picked these years is because it encompasses the revision of 10 CFR 20 and,

even though that occurred, it's always the same stuff, which is kind of interesting. Good preventive education stuff. Okay?

Now, the last one is the Texas Department of Health Bureau of Radiation Control, our model program. Right?

(Laughter)

DR. EMERY: Okay. But, now, a couple of neat things about this. Number One is that everybody gets inspected. There's a routine inspection process, and everybody gets inspected; their frequency is just based on the scope of activities, which I suspect is the case for everyone here. It covers both licensees of radioactive material and registrants of radiation-producing devices.

So, in fact, it's probably the purest database with regard to compliance that's out there. And let me emphasize this: Our interest in doing this is not to point fingers; our interest is to claim that we benefit as a profession from the routine surveillance program, that it is to everyone's benefit that we are inspected.

But if we can still have the inspections occur but reduce the number of common violations, that's also to everyone's benefit because there's a cost associated with that. And we'll talk about that in a second.

So I'll turn it over to Mike Charlton, and he can talk about the particulars here with the data.

MR. CHARLTON: Thank you, Bob.

Now that Bob has got everyone worried about what they had for lunch, I'll try to get everyone back to radiation safety.

(Laughter)

MR. CHARLTON: Okay. We have it broken down into two sections, really. We have licensees and registrants. Not everyone's going to have registrants, but this should at least give you a feel for what we have in terms of registrants.

First and foremost, we have the licensees. And this is ten years of data that we obtained from the Bureau, and they, I think, gladly gave it to us -- I hope. And you can see that, of the top ten, just like Bob says, they sort of vary in position between Number One versus Number Two, but, over the entire 10-year period, the same ten were observed.

And the top, Number One violation was procedures -- failure to follow procedures that you've written into your license, or some sort of licensing condition -- absent surveys would be 10 percent.

Failure to perform lead tests or document lead tests properly, personnel monitoring issues, instrument

calibration, inventories, transfer records, disposal records, some sort of maintenance program and then training issues -- when you add these things up, they accounted for approximately two-thirds of all the violations issued by the Department of Health during the ten years. And that's sort of an important thing to know.

And during the 10-year study, this Top Ten list accounted for between 55 and, say, 75 percent of all the violations issued. So from the licensee's perspective, this is very important information; at least, it allows us to know where all the sort of speed traps are. So, at least, we know where the inspectors will be looking when they come out to our program. And this is the sort of information that our RSOs were very interested in having.

And you know you've reached the pinnacle of your health physics career when you can say, "If this graph were at all visible, you could see what is going on."

(Laughter)

MR. CHARLTON: But, in reality, don't worry too much about the details.

(Laughter)

MR. CHARLTON: The information is provided in that little book. It's -- the book is broken down the

same way this presentation is in that there are licensees in Section 1, registrants in Section 2, and then there are some references and contact information for each one of the states and the NRC, and that sort of thing. And this graph is in there, also.

One of the nice things that the Bureau provides is -- in addition to the citation, they also give a severity on how severe it was, Severity Level 1 being the most severe, or imminent danger, and Severity Level 5 being the least severe, or minor infraction.

And you can see that, by far, 75 percent of all the violations over the 10-year period accounted for minor violations. And this is the sort of information that's important for both licensees and -- it's also good for the Bureau to have this information, too, so they know where to focus.

Okay. Now we can talk about registrants. Registrants, at least in the state of Texas, far outnumber the licensees. We have approximately, say, 15,000 registrants, versus approximately 2,000 to 2,500 licensees. So there's a whole bulk of problems associated with these registrants that the Bureau has to deal with.

And you can see that 20 percent of all the violations issued over the 10-year period had to do with

operating and safety procedures not followed, not posted properly, and these sorts of things.

Temperature and time charts for machines, no QC performed, alignment problems, tests performed on the machines, technique charts not posted, the registration not current, dosimetry issues, timers and then just a general other X-ray and -- this accounted for almost three-quarters of all the violations issued.

And it's important to note that, for registrants, there's approximately 150 different violations that you can receive and, of those 150, these top ten general ones have a tendency to account for, you know, 75 percent of them. And during the study period, these varied from 61 percent to 78 percent of all the violations.

It's important to note that, of these top ten violations, similar to the licensees, many of these violations are at least somewhat derived from paper work-type issues or failure to document things properly and -- you're probably aware of that -- the ability to retain the records properly or report the records properly.

And this is another slide similar to the last one. In that, you can see that the vast majority of the violations occurred in the very first category, which is

operating safety procedures, radiation safety plan not implemented or not posted or not available. And they may vary back and forth between who's Number One and who's Number Two, but, over the 10-year period, they were all similar.

We also have the severity levels, the same as we had for licensees. And you can see that, just like there was for the licensees, the Severity Level 4 is the most frequently occurring. And if you add that in with the Severity Level 5, which is the most un-severe, that's approximately three-quarters of all the violations.

Okay. And now we have some other program outcomes. We have complaints and, also, incidents, which -- I'm sure everyone here is aware of all of these types of issues. And one of the things we like to tell the people in our courses is, "Well, these are the general kinds of complaints that you can suspect that you'll receive by your work setting or by your license-type, be it a registrant versus a licensee."

And here you can see that, if you want to get a complaint filed against you, it's probably better to be a registrant than it is to be a licensee. And 54 percent of the complaints were issued against registrants, and only 38 percent for licensees. "Other," is sort of anything -- at least in the state of Texas, you can

complain about whatever you want to the Bureau, and they'll do an inspection irrespective of whether or not they actually regulate that particular material.

(Laughter)

MR. CHARLTON: And in several cases, this could be like microwave ovens and then some sort of far-off sorts of things. And that's where the, "Other," category comes in.

And over the 10-year period, there were almost a thousand complaints. So each one of those things also resulted in an inspection and, perhaps, even some NOVs coming from that.

We also have it broken down by work setting, be it industrial versus medical. And you can see that the medical profession has far more complaints filed against it in terms of radioactive material or radiation sources than the industrial side: 55 percent to 36 percent. And that's probably an important nugget to know if you're in the medical profession to, at least, make yourself aware of sort of patient problems that you might encounter.

Okay. This is --

(Laughter)

MR. CHARLTON: Well, I apologized for this slide already. It's a little bit difficult to read, but it is in the book. And don't worry too, too much about

the actual details, but look at the actual -- the big pieces of the puzzle.

And you can see that the Number One thing is that 20 percent of the complaints were from uncredentialed technicians or uncredentialed technologists. People are complaining about, "The person performing my X-ray imaging," or some sort of imaging, "did not have the proper qualifications," or, "We did not feel they had the proper qualifications."

This -- these results don't say what happened after the Bureau did their investigations, i. e.: They can complain to say, "Yes, we don't think that, you know, my technologist had the credentials," but the Bureau could come in later and say, "Yes, they actually did have the credentials; they just weren't posted properly."

And that may be some of the issues that you and your state may want to address. And then there's a bunch of smaller ones, but that's probably the largest one.

Okay. Now I won't break it down into incidents. There are mechanisms, which I'm sure everyone is aware of, for reporting certain items -- for example, over-exposures, mis-administrations and these sorts of things -- which are classified in the state of Texas as incidents. And there's some for registrants, and there's also some for licensees.

And you can see that the vast majority of the incidents over the ten years occurred for the licensees, almost two to one -- three to one, almost. And during the 10-year period, there was 2,000 incidents, twice as many as there were complaints, by the way.

And we also have it broken down by medical versus industrial. And you can see that, here, it's about the same. There is an equal percentage of incidents occurring in the medical setting as there is in the industrial setting. Now, that, obviously, is probably a little bit unique for Texas, because we do have a lot of industrial-type sources which you may not find in some of the other smaller states.

This -- I tried to make it as big as possible. But the big pieces -- you can see that the big yellow one is over-exposures reported to the state of Texas. And that accounted for almost a-third. If you add in badge over-exposures, that does account for 42 percent of all the reported incidents to the Bureau.

And the other pieces are dose irregularities and mis-administrations, which are sort of mis-applications of radio-pharmaceuticals or radiation therapy and these sorts of issues. Those four pieces alone account for more than 60 percent of all the problems associated with incidents in Texas. So if we

can work on those incidents or ferret out some additional data, then perhaps we'll have some pretty important preventive information.

So you may ask, "Okay. Now we have all these spiffy graphs that no one can read, but, in addition, it would be nice to have some educational information to present to people besides ourselves." This first graph is all incidents, which is the top red line, reported to the Bureau each year. And then the lower blue line which -- I think it's blue; I'm color-blind, but I'm told it's blue -- is just over-exposures.

And you can see that they're approximately constant up until 1994, and then, following 1994, there's a pretty significant drop-off in the number of incidents, and there's also a drop-off in the number of reported over-exposures. And this is probably due to the fact that the quarterly dose limits were revised or eliminated on January 1 here in Texas.

This is important information for the Bureau to have because it allows them to take resources that they used to use on incident investigation and apply them to other areas.

And that's a nice segue into mis-administrations and does irregularities. They also noted during that same time period an increase in

mis-administrations and dose irregularities around 1993, and they could tailor some of these other incident investigation resources into these mid-administrations over on the medical side.

Now, from the licensee standpoint, there's additional information that we can use. And this is a breakdown if mis-administrations and dose irregularities by radio-isotope.

And you can see that the vast majority of all the reported incidents involving mis-administrations of radio-pharmaceuticals occurs with techs using 99 M. Of course, intuitively, you'll probably assume that because approximately 80 percent of all the radio-pharmaceutical applications involve techs using 99 M, but this sort of goes right in line with what we would expect -- 75 percent, basically, of all the applications.

And, in addition, we also broke it down by process variable, i. e.: "Did we inject the wrong dose? Did we inject the wrong patient? Did we inject the wrong compound?" And these sorts of issues are important for training or preventive training for radio-pharmaceuticals, nuclear medicine, hospitals and even radiation safety people.

So these things, these sorts of easy-to-read pie charts, allow the historical data that the Bureau has

collected to be reformulated and given back to the licensees in a sort of easy-to-use-and-understand format which will, hopefully, help prevent in the future.

Okay. Now I'm going to pass you back off to my tag-team partner.

DR. EMERY: Okay. We're on the down-stretch now, but perhaps the most important part, and that is: "Well, what does all this cost?"

We go out and do these inspections, and we get this data back. And the nice thing that the Bureau has is a coding system which allows us to do some of this data manipulation. We have some suggestions on how that coding system might be enhanced a little bit, but the idea is that, by coding the data as it's collected, we can use it for some of these preventive tools.

And we have many, many more, but we didn't want to bore you with all the gory details. But you get the gist of what potential rests there.

But as we were working on this project, one of the things we were quite interested in is, "Gee, although no one will come out and say it, it may be inferred that, just as the operating police officer out on the street has to come back with so many tickets written to show his boss that he did something -- or her boss -- we were thinking about the idea that, "Gee, is the Bureau" --

"Are radiation agencies measured by their output, the number of violations issued, and is that an appropriate measure?"

And, in fact, it may not be actually done, but it may be inferred. Okay? So we don't know the truth there, but what we would like to know is, "What does all this cost? What does it cost to issue these NOVs?" Okay?

And so, again, we endorse and embrace the idea of routine inspections. We think that the radiation safety profession benefits from out. Our jobs come from it. We like that.

But what we're interested in is, "What added cost is reflected when NOVs are issued," because, if this information is provided for a value of prevention, you might be able to experience some pretty significant administrative cost savings which then the agencies could use for some other pressing issues that are beating down their doors.

So what we wanted to do was estimate that administrative cost that's added. So we wanted -- we're not concerned about the cost of the base-line of doing routine inspections; we just know that there's added cost to issue and subsequently resolve NOVs.

So if we could estimate this, then maybe the

reductions that are available -- the potential reductions through education -- could be quantified. And that's a project that we worked on here.

So what we did was -- we created a map of the inspection process independently, and then we sent it to the Bureau and said, "This is the way we see how the process works. Is this correct?" And then we held a focus group session with the Bureau, and there were, I think, ten employees of the Bureau who were involved with this process who participated.

And we asked them what -- "How many hours are required to do these additional that -- when an NOV is issued, in order to write the letter and all that kind of stuff?" And then some percentage of those things aren't returned, and on and on. And some of these things actually have to go to a higher level of authority, and on and on.

But we were able -- I won't get into all the gory details, but the idea is: They estimated times that were associated with this. And then we were able to develop an estimate of a relationship between the number of NOVs issued and the administrative cost. And then, being academic egg-heads, we had to develop a unit for this. Right? If we didn't do that, we couldn't get tenure and promotions and those kinds of things. Okay?

(Laughter)

DR. EMERY: Let's look at this graph for a second. What this graph showed -- and, interestingly enough, during this focus group, we were able -- everybody's data was within 20 percent. Kind of interesting. They filled it out independently, but, through their professional collective experience -- it was over 100-and-some-odd years of people -- person years -- the data was pretty close.

And here, we have, "Number of NOVs Issued," and here's dollar figures. And lo and behold, there's a direct correlation here between the number of NOVs issued and the dollar -- the cost to process these things. Right?

And the last blank on your little survey or your form is, "What do you think the cost -- per year added administrative cost is to process this stuff?" What do you think, just a wild guess?

(Pause.)

DR. EMERY: Our claim is, "Keep going and inspecting. But what do you think it costs to actually process the NOVs that are issued in a year?"

MR. FRY: $100,000.

DR. EMERY: Very, very close. We came up with $106,000. Okay?

Well, what does that say? What this suggests is that, if any regulatory agency could develop this relationship and then set as an educational or preventive goal that we will reduce through education, not through a reduction of the inspection process, the number of NOVs that are issued, because people will now be enhancing their compliance, we could save a proportionate number of administrative dollars that would then be freed up for other activities.

And you could set that goal at 10 percent, 30 percent, or whatever. And now, all of a sudden, we're armed with some data that we can go to those people who may judge our outcomes as the number of tickets written and say, "Wait a minute. Let's look at the ultimate outcome, which is the health of the public, and reduce some of these administrative costs and put them somewhere else." Just food for thought there.

Okay. Now, when Mike and I were working on this project, of course, now came the most important part, which was, "How do we name this unit," of course. So we flipped for it, and we decided it was called the Emery Unit -- the EU, the Emery Unit, which is the --

(Laughter)

DR. EMERY: Now, I'll tell you what happened with the coin-toss. Because this is the administrative

dollars per NOV saved, that's standard, temperature and pressure.

(Laughter)

DR. EMERY: Well, because we flipped on this, this is the SI unit, and the English unit will be the Charl-ton, which will be the weight of the dollar figures that are saved per NOV lost, or something like that. We haven't worked on that one yet.

(Laughter)

DR. EMERY: So notice those are all, "1," by the way. Okay? So we're hoping to go down -- and we're going to -- you know, the Health Physics member -- Society -- there are these coffee cups they give out each year, that Boca Ridge one. So we're shooting for the coffee cup next year. Okay?

So, now, your question is, "Well, what's in this for my agency? Why am I enduring this stuff, these egg-heads from UT/Houston spouting up all this stuff? What's in it for me?"

Well, I think -- we think, in recognition that health and safety programs may be evaluated in a number of ways, that there appears to be a finite set of frequently cited issues that can usually be identified. And I think most people would agree with that.

A simple data-collection system can easily

augment the programs that are in place. And they can show -- one thing, for instance, they show that the common issues may not be where the resources are being allocated. Conversely, it may suggest that the common issues may not be where the real risks are. Just something to consider.

So we contend that the dissemination of this information in an easily-digestible format for the regulated community serves to benefit everyone. And it serves in administrative cost reductions, and now there's a lot of emphasis on compliance risk plans, as well.

So where do we go from here? What's the next thing? Right? Research is just taking one problem and slicing and dicing it about 8 million times. Well, where we think the real root of the issue is is this root-cause analysis. And let's take one of the most famous violations that everybody issues: Failure to do a sealed-source leak test. Right? Everybody has had one of those. All right?

What are the problems -- what can go wrong in order for someone to get a sealed-source leak test NOV, which is coded 030 in the state of Texas? What are the problems? Here it is: It was either done or it wasn't done. They either leak-tested it or they didn't. It was never ever done, or it was done, but not at the

prescribed frequency.

The time frame in which it had to be done was either a permit condition or a regulation. It could have been done, but the documentation was incomplete. It wasn't recorded in the units of micro-Curies. Or, in fact, the thing was found leaking, but it wasn't reported.

Now, can anybody else think of any other problems that could go wrong with the issue of a sealed-source leak test? That pretty much covers the water-front. Okay?

Well, look at this. Lo and behold, what are the problems here? It was either a performance issue, a time issue -- it was either a violation of the reg. or the permit condition, it was a completeness issue or an inappropriate action issue.

And we think that that type of approach for the most common violations, the finite list of the top ten, if the data were coded with these subsequent sub-codes, all of a sudden we could really get to the root cause. Is really the problem that we're encountering because people can't count six months? Is that really the issue, or that they can't convert from DPM to micro-Curies? Is that the real issue?

I mean, so maybe by having the standardized

coding system with a little follow-up data, we can really get to the root cause of the problem and help educate the regulated community so that we can save some of these administrative costs.

Okay. That was supposed to get you psyched up. I don't know if it did or not.

(Laughter)

DR. EMERY: Okay. So before you go home and take the plunge, what do we need to think about? One is: A coding system needs to be developed with the results in mind; we don't want to over-code. We should have a coding system that gets that simple stuff because, really, what we want to do is just prevent the common violations.

So think about the level of detail necessary. Is it really necessary to have that OSHA level of detail? No, probably not. We certainly want to limit the impact on the staff.

And when we were working on this project -- and we're very appreciative of the involvement of the Bureau of Radiation Control -- one of the things they did was had us come up and talk to them.

And by having someone come from the outside and talk to the staff about how this fits into the bigger picture and what's really going on here, it seemed to

open some eyes. And people began to understand what we were trying to do here and that it wasn't some subversive activity or something like that. And I would encourage you to think about that, as well.

If you're interested in doing this, that -- it's probably worthwhile to have somebody from the outside to talk about it because, if you get it from the inside, it's the delivery person.

I think that inter-state consistency is probably useful for benchmarking. This forum is appropriate for that type of discussion. If this coding is something that's of interest, it's probably a good idea to have a standard coding system so we can start comparing apples to apples, instead of apples to oranges, and, last of all, keep it simple.

But -- by the way, that's my daughter. She just learned to swim.

So I guess my questions for you are: Number One, is the assembly and dissemination of this type of information part of your program's mission? Is part of the mission of your radiation control program education, and, if it is, the second part is: Is the local climate conducive to this type of approach?

And, third, if that's the case, should any such effort be coordinated or supported at the national level

so that we have a coordinated effort and not a bunch of people heading off in 31 different directions there?

Okay. So that's the end of our formal presentation.

Before I stop yapping, who got the most right? Anyone close?

(Pause.)

DR. EMERY: Well, let's see. Who got one right? We'll start there. Okay?

(Pause.)

DR. EMERY: Who got two right? I'll start going down.

So you might be our -- well, please, step right on up here.

(Pause.)

DR. EMERY: So we have this handsome environmental health and safety ice-chest developed for our department because we got tired of putting beers in the sink in there.

(Applause)

MR. CAMERON: I'm glad to see that they're still having fun, lots of fun, in academia.

DR. EMERY: Yes.

MR. CAMERON: That's great.

DR. EMERY: Now, at the end of the

discussion -- I forgot to ask you this one thing: At the end of any discussion you have, you have to save my job, and that is -- we killed about three printers printing out those color things. And my boss had apoplexy.

So what I told him I'd do is, "I'll get a picture of all these people from all around the state." So what I need to get your picture holding up the book and your card from whatever state you're in. So we'll do that before we take our break or something. That way, I can show the boss that we're national leaders there. So we can --

Oh, do you want to do that?

VOICE: Yes.

DR. EMERY: We'll stand in the middle of these people. How about that? That way, if I'm unemployed next year, you'll know it.

(Laughter)

DR. EMERY: A self-serving promotion.

(Pause.)

DR. EMERY: Well, any questions or comments that you may have -- or thoughts?

MR. FRY: I guess North Carolina got a preview of this, in that Bob came out of North Carolina and has also talked to our school of public health. We are very interested in trying something along this line. It's

going to force us to standardize some things that we've kind of been doing on an ad hoc basis. So that will be worth it just to get it standardized.

But I think it's something that's very helpful and, if nothing else, helpful to us. I'd encourage this. And, certainly, doing it in a somewhat uniform manner gives us a benchmark we can all use.

DR. EMERY: Yes. We think -- a couple of comments with regard to this. The Texas coding system is very good, but there are a couple of those areas which are, in our opinion, a little too general. For example, 20 percent of all the violations issued for the registrants was operating and safety procedures, a very broad category. And if we could get it a little more detailed, it might provide some more value.

And then we're still furiously working on this sub-coding idea. And if we can do that, our thinking was just to make a simple sheet that people -- almost like an op-scan sheet that, when they're finished performing, they could just check the blocks. And then we could feed this thing in and do some sort of database sorting, as well.

MR. FRY: Again, I'll share what North Carolina's thinking of doing at this stage. We're going to tie that -- at least, that's our thinking -- into our

NOV writing process so that you use that same code to tell your computer to grind out the standardized NOV.

DR. EMERY: Yes.

MR. FRY: And therefore you get it in your database.

DR. EMERY: Yes.

MR. FRY: We do that now manually, but then we throw it all in the file folder and lose it.

DR. EMERY: Yes. And that's -- a common problem is that the data's collected and there it resides. And it's a real opportunity to mine into that data. I'll tell you, let me get to this guy, and I'll come back to that.

MR. FRY: Sure.

MR. COLLINS: Two items. I don't know if it's for you or for Richard or a member of the staff.

But have you looked at this now to -- after a period of time to decide whether or not some of the violations you were citing really did or could or might even have the potential to result in the reduction of exposure or a prevention of exposure for someone and, therefore, it wasn't worth your time even looking for it any further, or have you looked at this and said, "Okay. After 10-year learning experience, now we need to focus in these areas and change our data collection and

categories and things," so that maybe you could -- maybe we could get a committee appointed with the CRCPD so that you could get some helpers from other states and come up with something that maybe all of the states would agree that, "Yes, this is performance-based risk-informed outcomes that we should all use?"

Several of us have been brought into this benchmarking thing. And we really do need a tool like this to use in our budgeting process, starting soon.

MR. RATLIFF: Yes. I think that's just the start. And, you know, Art Tate is the division director for compliance. And I think that they're going to start looking at this data.

But one of the things that helped us with this particular study -- it has been for several year going on, but, last year, our state went through the sunset process for our health department, and one of the things they did continuous until 2011. But they said all of our enforcement and incident trends would be put in the internet.

And so these folks did a lot that we don't have people to do this work for us. So it has helped in that regard, to look at the trends. And then I think the next step is to look at what violations are out there. Are they serious? Are you devoting your resources to the

wrong area? I think it opens up all those questions that we need to look at now.

MR. DUNDULIS: One problem in these days of infinite resources and infinite budgets: Many of the radiation control programs -- you know, unlike Illinois, where it's an independent agency or, in some states, where it's a big program, in small states, you're sometimes victims of bean-counters who add one and one and come up with five.

We had some very good statistics that we kept on number of inspections and types of violation found. And when we presented the statistics, the conclusion that came back from our senior management -- not in the radiation program, but the senior management above us -- again, we used this categorizing of One, Two, Three, Four and Five Severity Level.

And the fact that we issued no Severity Level 1 violations and very few Severity Level 2 violations in the last five years -- then there wasn't any problem out there, and they were cutting back the number of inspectors that we had.

DR. EMERY: There's certainly a risk associated with that, but I guess my response comment would be: If we as a profession don't collect this data to the best of our ability, someone's going to collect it for us, and

they're probably going to collect it with their own interests in mind.

And I think, by collecting it in a way that we can show that we're attacking at the bottom of the pyramid -- we're issuing violations or tickets, or whatever you want to call it, before the problems get too big, that's the sign of a sound preventive health program.

Of course, from the other side of that coin, from the public health perspective, you have decision makers that are saying, "Wait a minute. We have an increase in multiple-drug-resistant tuberculosis incident trends, so maybe we ought to take some from here to over there." That's a problem for another day, but, you know, you can see the limit they face, sure.

MR. GODWIN: Aubrey Godwin, Arizona. I'd just like to know if you think the NRC will be able to participate in this program if you come up with standard coding.

DR. EMERY: We welcome the opportunity to work with whom ever. I think, if we can do a standardized coding system, perhaps -- I suspect there has got to be some sort of training involved in that because there will be all sorts of interpretations. But some sort of standardized coding system, I think, would be very

beneficial to the community as a whole.

MR. GREEN: Bob Green with the state of Texas. Originally -- the codes that Texas now currently uses originally came -- were derived from some early NRC violation codes. So we have modified them somewhat as regulations change to add additional items of non-compliance, and we tried to fit them into the main categories that the NRC had put forth in the beginning. We've added a couple, but, overall, though, that's -- where those codes originally came from was from NRC.

DR. EMERY: The good -- I'm sorry.

The good news about the coding thing is you only need ten or 12. Right? Because this thing is so skewed that, if 70 percent of your violations can fit into a list of ten, then who cares if the other ones are, "Other," right, because the bulk of them are in there? So, in fact, it doesn't have to be, I think, an extravagant coding arrangement. Sure.

MR. O'KELLEY: You know, just a comment on the NRC. You know, I -- if I'm not mistaken, a lot of their data also covered the X-ray program. So we might even look at even going somewhere through CRCPD task forces or something to --

DR. EMERY: And that might be --

MR. O'KELLEY: -- come up with the coding.

DR. EMERY: -- the appropriate forum to present this information to. I -- we were kind of outsiders looking in on that. But if you folks feel that this information would be -- that the next step is to present it or to have those discussions at the level of CRCPD, we'd be happy to engage in that process and then go from there and see if there are some opportunities there.

We're quite interested in seeing if the trends that are in Texas are applicable across the country because, if they are, there's a really great educational tool there, I think.

And, by the way, this ties in very nicely with Ray Johnson's comments, the practical remarks being that RSOs are dealing more with regulatory compliance, and not doing a whole lot of calculations and things these days. And so maybe one way to provide a service to that community is to make them aware of these common violations so they can avoid those and direct their efforts toward some other issues, as well.

DR. EMERY: Anything else?

(Pause.)

DR. EMERY: Well, thank you, very much. And we'll get that photo op. before break time comes. How about that? Thank you, very much.

(Applause)

MR. CAMERON: Thank you, guys. And I know the photo op. is something to look forward to.

We have one more set of presentations before we break and before the business meeting. And I think it follows on nicely to Bob's and Mike's presentation. And this is Performance-based Inspection, by Mohammed Shanbaky, better known as Shan.

And what I'd like to do is to, after Shan gives his presentation, have commentary by Art Tate and by -- of Texas and by Cheryl Rogers of Nebraska, and then have a discussion of all of that.

Does that make sense to Cheryl and Art, to just follow on after this?

MS. ROGERS: Sure.

MR. CAMERON: All right.

And that's okay with you, Shan?

MR. SHANBAKY: That is fine.

MR. CAMERON: All right. We'll turn it over to you. Do you want to use this?

MR. SHANBAKY: I don't know.

Everybody, can you hear me, or do you want me --

VOICES: No.

MR. SHANBAKY: -- to use the microphone?

(Pause.)

MR. SHANBAKY: Good afternoon. My name is Mohammed Shanbaky; I work for the NRC in Region 1. Thank you for inviting me to share some of our effort in the area of inspection based on performance and based on outcomes. I'm very pleased to be here today to share some of the struggles we have with this concept.

We had a task group started back in '98. And we had -- are close to a final product now, which is going on its way to the Commission for approval.

The idea here is not really a revelation or a new concept; it is a concept which all inspectors use to a certain extent. What has changed here is that we're trying to re-focus and streamline the inspection process and re-focus the inspector on certain traits in the program which we consider to be program outcomes, rather than doing the inspection in what I call the traditional way of taking the program from A to Z through procedures, personnel, equipment and look at the records.

And we tried to re-focus the inspection process. And we found as a good target in a multitude of areas that we regulate is the area of nuclear medicine. So we choose nuclear medicine. And, also, there is a barrel program in the facility, but I will talk to you today about the nuclear medicine effort.

The objectives of the program are essentially to maintain safety, ensure compliance and, in the meantime, do these two basic program requirements in a way that's based on risk-informed and performance-based, with improvements in efficiency and effectiveness and, also, with optimizing -- I use the words minimizing the impact of the regulatory activities on the licensee. The actual thing here? There will be some impact, but we're trying to optimize that impact.

And one of the major challenges when you're going through the performance-based and outcome is to keep focused, also, on the public confidence in what the regulators are doing and the public perception. Some of the concepts we're using, some individuals in the public or even the licensees may perceive it to be backing off, not doing inspections in a detailed way, skimming over the surface.

And that -- those perceptions are very difficult to deal with, but it takes education, it takes lots of missionary works with the licensees and the public to make sure that these potential perceptions will not materialize.

The nuclear medicine area -- we started looking at it based on lots of experience -- actually, years and years of experience with the program traits versus

outcomes: What types of traits in the program would result in a good outcome, and what types of traits in a program would result in a poor outcome?

And when there is a poor outcome, what is that in terms of risk? And the risk -- is it a risk to the patient? Is it a risk to the professional staff who work in the hospital or in the clinic? Is it a risk to the general public? And is it a voluntary risk, like with a patient? Is it involuntary risk? Is it transmittable risk?

And we worked with all kinds of risk, and it boiled down to that, in general, the nuclear medicine area for diagnostic studies is an area of relatively low risk. We looked at the risk in terms of consequences, multiplied by the probabilities of these consequences. And my advice to anybody who is venturing in this area? Don't try to sharpen the marshmallow.

This is -- to start working with probabilities of some order of the magnitude ten to the minus four or ten to the minus fifths. And somebody said, "Is it really two to the minus fifths, or three?" Who cares? And so we avoided this, and that's why we were very successful in coming up very quickly with rather qualitative estimates of risk in terms of consequences and probability.

And in the programs, there are all kinds of shades between high probability and high consequences to low probability and low consequences. And there is all shades in between. In diagnostic nuclear medicine, we found that, in this too, the consequences and the risk are relatively low.

The focus of the task group was on program outcomes, not outputs. A good example of that: When we do an inspection, you find that licensees say, "100 percent of my staff is fully trained" -- that's nice -- "All of them got 80 percent on the exam." That's good. This is really an output: "25 of the staff out of 26 are fully trained." These are outputs.

The program now we are about to start, hopefully, after the Commission approves it, is based on outcomes, the actual knowledge of the staff: Do they really know their job? Do they know the radiation safety aspects of the program as applied to their risk responsibility?

And this is not going to be easy because the inspectors which have to be doing this, I would view them to be more seasoned inspectors and inspectors with what I call "inspector savvy." They have to be fair and reasonable in their approach to verifying the knowledge of the individual, the worker or the physician or the

nurse or who ever is involved.

So we came up with this performance indicator, a surveillance and corrective action. And that's very important. And essentially, one of the major elements of management oversight of the program is the performance of audits, the performance of routine reviews of the processes and the performance of the staff.

And what is more important here is the corrective action: Is the whole process working? Is -- the licensee, when they identify a problem or an inadequacy, do they have the capability to correct it? Do they actually correct the problems they identify?

So corrective action here is the key to this. It's not necessarily the process, how detailed the audit is or the scope of the audit or how formal the audit is; it is the outcome and corrective action to prevent to recurrence. And that's one of the -- I'm going to talk about each of these for just a couple of minutes.

It is a surveillance program. It's -- it could be formal audits. It could be surveillances, which are walk-throughs. And all of these have to be focusing on problem identification and problem solving.

Many, many licensees, for example, are very good at performing these audits and surveillances, and, when it gets to corrective action, they fall short in the

corrective action system. And that's -- that ties into the management verification: How management is involved in the program to close the loop, if the licensee management are involved to close the loop on identified problems.

Here is one of the performance indicators outcome. This is very important. And that is knowledgeable staff. We -- you can see here that we did not use the words "trained staff." In training, the inspectors go and look at the training plan, they look at the training of the staff and they look at the records. And the staff is trained. That does not necessarily mean it's safe.

This -- the new procedure of the pilot, it will actually require the inspector to actually go and discuss things with the individuals to see if they are knowledgeable of the safety aspects of that program as it applies to their responsibility.

Of course, one of the major outcomes is that no over-exposures, and that's all with public exposure or occupational exposure and, to a certain extent, [indiscernible].

Here's one of the very few items, what I call involuntary risk in the nuclear medicine program, and that's where a licensee loses radioactive material. Most

of the risk involves the patient, which is a relatively voluntary risk. This type of risk here, it may involve other personnel in the hospital or the medical institution, or it may also involve even a member of the public.

And that's one of the very important performance indicators. And, of course, if there is any violation associated with that, it will be definitely based on the risk from the loss of that material: The quantity of the material, the nature of the emission from that material and the circumstances under which somebody could get exposed.

Another outcome here, and that is: Conformance to the written directive by the physician. And we're looking at mis-administrations, the frequency of mis-administrations, and that is very rarely seen now in nuclear medicine. Because of the NRC definition of mis-administration in nuclear medicine, essentially, you have to have somebody to receive a wrong administration, a wrong patient, and those have to be 5 rem or above.

Use of all the materials as authorized: That the people who are using the material are authorized to use it, and the type of the use and location and quantities as authorized, and, also, that the people who need supervision are being supervised when they use the

material.

Now, for performance-based inspection, the conclusion of the inspection would be one of these two outcomes. And then, as inspection results, one would be that the licensee's program met all performance indicators. In this case, we'd just issue a 591, a clear inspection, or even with minor violations, Severity 4 violations.

And most of the Severity 4 violations now in the material area, if the licensee takes corrective action or even says that they are going to correct it and it is not related to management oversight or a major problem, usually we don't cite it. We call it a non-cited violation.

If the licensee did not meet all of the performance indicators, then we would revert back to the classical, traditional detailed inspection to identify the causes and root causes of the failure to meet the performance indicator. So if they met, we do the 591, do the exit, and the inspection's finished.

This would reduce the inspection time significantly. A typical nuclear medicine program should be expected to -- that inspection should be completed in like two or three hours if they are meeting the performance indicators. If they don't meet the

performance indicators, then we go back to a more detailed inspection.

And here are some of the actions that we usually do if the licensee fails to meet the performance indicators. We do the inspection, identify the safety issues, identify the violations and inform the licensee management and inform the regional management, do exit interviews and take the subsequent appropriate enforcement action.

Now, what is the current status of our program now? The program is currently with the executive director for operations. We submitted memo with the program, that it would be a temporary instruction, which is, "Allow the staff to use this program for one year as a pilot program. And if -- after the completion of one year, it will be considered for application in other areas of the materials area.

So this is the current status of the program. One of -- that looks like -- very nice. It decreases the impact on the licensee. It decreases the impact on us and lets us use much less resources that could be diverted to more important areas, more safety-significant areas. And so this is a win-win situation for everybody involved here.

What is the down-side of all of this? The

difficulty could be in the area of culture, culture in terms of the inspector training. You need an inspector who -- with good experience, with good savvy and with extreme focus on safety, rather than compliance, issues a violation as soon as the inspection is -- you know, you get the violations, and the inspection's done. And that's very few inspectors.

NRC, for example, in Region 1, has very mature, experienced inspectors. And when we gave the initial training on this, it was no problem at all; everybody thought that this was the right way to go.

The other difficulty is to make sure that the licensee understands where you're coming from, the inspector -- where that inspector is coming from, especially the staff -- the nuclear medicine staff, the technologists and, even to a certain extent, the physicians, that this is not really winging an inspection; this is doing an inspection another way -- in another more effective and efficient way.

So, with this, do you have any questions? I'd be glad to answer them.

MR. CAMERON: Shan, let's -- thank you for the NRC perspective and the benefits on this.

MR. SHANBAKY: Sure.

MR. CAMERON: Why don't we get Cheryl and Art

to come up here? And let's make room and get you a seat up here and see what the state perspectives are and what the common elements might be and then open it up to everybody for questions. Okay?

So why don't you have a seat right here?

And, Cheryl and Art, why don't you have a seat here? And there are some microphones for the three of you.

And, Cheryl, do you want to go first with the view-graphs, or Art? Whatever you guys prefer.

MS. ROGERS: I'll let Art go first, and then I'll follow up.

MR. CAMERON: All right. Good.

MR. TATE: Well, since I don't see a podium and there's a microphone nearby, I'll go ahead and use this. But it's good to see so many of you here, especially some folks like Joe Klinger and Ed, who have moved on to bigger and better things. But, old friends and new friends, I'm looking forward to talking with each of you.

When Richard first asked me to sit on the panel, he approached me with, "We need someone to talk about customer satisfaction survey forms." So here I am.

The panel has been asked to briefly discuss performance-based inspections. I will speak from the perspective of a large state, because we have some 16,000

to 18,000 licensees and registrants.

Our program regulates radioactive materials, machine-produced radiations, non-ionizing radiations, naturally occurring radioactive material, as well as accelerator-produced radioactive materials. We also are contracted with the USFDA to do their inspections, under the Mammography Quality Standards Act in Texas, at about 550 facilities.

To do this, we have approximately 36 to 40 inspectors at any given time around the state. Seventeen typically are X-ray, and another 14 RAM, five or six in QSA, and then we have turn-over. And while it's not on our agenda, you know, we're getting hit with turn-over, and we're not able to replace people at equivalent experience levels. And that's going to be a problem for us.

We do have two very experienced people in charge of our X-ray and RAM branches, Tommy Cardwell and Bill Silva. Tommy, a lot of you may know, has been on a lot of CRCPD committees. Bill is with the CAMRA and is our current representative to the NPEP team and has been there for two years.

While the OAS is made up of agreement states, we share many other areas of commonality and interest. And most of these are in the areas of -- the non-Atomic

Energy Act area of the non-ionizing, the X-ray and what have you. Almost every state in this room in some way or another will either do X-ray or one of the other portions of this sphere.

We share many challenges. And one of those challenges is doing more with less, and the other -- another is being more open and friendly to our customers. In past years, we didn't treat our customers so well. And they have better lobbyists than we do.

(Laughter)

MR. TATE: So we're going to have to start.

In Texas, our program budget has remained constant now for about six years. Our travel budget has remained pretty constant, and our program budgets, and what have you. And it looks like it's going to be flat for quite awhile. Our population, on the other hand, has increased significantly, and we expect it to continue to do that.

As our population increases, there's a certain number of dentists and podiatrists and radiographers and what have you that comes along with that. And as a result, our legislature has mandated that we use performance-based inspections.

They said, "We're not going to give you any more inspectors, and we're not going to give you any more

money. So you're going to have to figure out how to inspect the people and ensure that the public health and safety is met and the safety of the workers is protected on the same dollars." And that's essentially what we're doing.

We have started with our X-ray program because we have more flexibility there. I'm interested to see how the NRC one-year trial program works out on the performance-based inspections using the temporary instructions. And we'll look forward to incorporating many of the successes from their program into our radioactive material program, but, with our X-ray program, we have been able to do a lot of things.

I'm skipping over a bunch of material because we're not on schedule.

Well, one thing here that we're -- the term, "Performance-based inspections." I think you're going to talk to three or four people and you're going to get a definition -- a different definition from everyone you talk to.

And my version of it is that it's not precisely defined, and it's really kind of whatever you say it is. So, with that, you're probably going to have three different versions, and they're all okay because it's currently being defined as we sit.

Like you, we're required to inspect by-product material licensees at least as frequently as the Nuclear Regulatory Commission schedule. And we do. However, in cases we -- where we see that an entire category or grouping of licensees are not doing the job that they are supposed to do, we increase the frequency of inspection. On the other hand, if we find an individual bad actor, we will increase that person's frequency of inspection.

As Mr. Shanbaky said earlier, when we do have either an industry group or a particular licensee that's doing poorly, we need well-trained inspectors and we need experienced inspectors, and these people should be used when possible on follow-up inspections; they both know the rules and can make valid observations about the current state of regulatory compliance. They can also evaluate the performance of the licensee's program and offer suggestions for improvement.

My observation for today is that the shrinking budget is the driver for performance-based inspections. With our X-ray program, we were floating along, asking our inspectors to do about 18 to 20 inspections a month in addition to their other stuff. And we've increased it from 18 to 25. And that's a 39-percent increase in their work load.

And what we do know is that we have no help

coming and that, in order for them to do the inspections and do the reports and do the other jobs, we have to stop performing audits and start performing snap-shots, if you will: Monitor critical functions. And that's what we are doing.

We simply do not have the resources to keep up with this increased work load generated by our state's growing people, and we're not likely to get it. So we've tailored our X-ray procedures to include those items that are essential to demonstrate that public health and safety can be protected and the workers can be protected, and then we have given our inspectors the prerogative or the authority, if you will, to do their inspections.

Are all of our X-ray inspectors there yet? No, not really. But we're getting closer, much closer. We have given our inspectors -- our X-ray inspectors the right to close out inspections with severity levels of Four and Five only found. And a lot of states -- and I believe the NRC has done this -- we hadn't. It's relatively new to us. We're working on it.

The thing that we have found is that it cuts down in report-writing time, it cuts down on review time and it cuts down on lots of other areas that will allow more people to review more reports and to do more inspections with the same resources.

While it's not a new concept, as I said, it, for us, is. And that -- we hope to implement many of the changes that we're making in our X-ray program in our RAM program shortly. And just in terms of performance, I'd like to just give three very brief examples.

When our X-ray inspectors go into a facility -- a large medical facility, typically -- that has 20, 30 or 40 X-ray tubes, we have a policy that tells them how many to expect. And if they do that inspection and they don't find problems with those tubes, then they go on. But if they find any reason in the world that they should continue, then they have absolute authority and prerogative to continue the inspection and to do as many as they possibly can or want to.

It's -- there is a reward for good performance because, if the registrant keeps their machines in good order and compliance testing validates that or verifies it, rather, that -- they do receive a reward. Their machines aren't taken out of service for an inspection which is a timely and costly venue in some institutions.

To Richard's original charge: We send out -- every time we do an NOV letter or a letter of compliance, we send out a letter to the licensee or registrant asking them for their feedback. We receive those back at a pretty fair percentage, and we take a look at them. We

evaluate them for trends. And we give kudos where necessary, and we work with the inspectors when it's necessary.

I can assure you from personal experience that it's really not fun having a legislator in Bermuda shorts and flip-flops in your office explaining to you why his dentist didn't get a good inspection.

(Laughter)

MR. TATE: And it's also a good way to lose a laser program, which we did, as -- possibly, as the result of that, because he was on the finance committee.

So little things can add up quickly. And they do mean -- they mean business when they come visit you. So if you get complaints, resolve them.

The one thing that perhaps we do that perhaps some others may not do is that, each year, we take a look at the patient exposures avoided. As our inspectors go out to do their inspections, the entrance-to-skin exposures are determined. And if they exceed the limits, we cause them to fix it. We issue an NOV, and they have to get the red levels down.

Now, this past year, we ran the numbers using the $200-per-rem per -- which is a relatively conservative number. I think NRC is using there $1,000 or $1,100. But we had a savings of future cost of about

$1.8 million. And that -- if we extrapolated this to the entire state, we would have some 12 or 13 million more in savings.

And I'll just listen to Cheryl's presentation and then be available for questions.

MR. CAMERON: Okay.

And after Cheryl is done, I would give the three of you an opportunity to comment on what you've heard about the other programs, too, what your perspective might be on that.

Cheryl?

MS. ROGERS: See? I have seven over-heads here, if anybody's counting.

(Laughter)

Basically, Nebraska put some procedures into place about a year ago. So we're pretty early in implementing this process. And I probably haven't put everything in here, but, hopefully, there's enough food for thought to generate some further discussion. So this is Nebraska's definition of the performance-based inspection process.

Just for your information, the four of our six people that could do inspections did attend the NRC's performance-based inspection course. So we're, hopefully, highly biased in that direction.

I believe this definition did come out of the training course: "Performance-based inspections are inspecting the performance of the licensee's program activities on the basis of safety and reliability." And, of course, the million-dollar question is: Well, what does this mean, and how do you do it?

The first thing we do is require that the inspectors create an inspection plan. It can be on -- in any form they wish. If they want to write it on a pad of paper, type it up or use a pre-made form which kind of steps you through the process, we'll take anything.

Basically, usually, I look at those, but somebody else that has inspected those kinds of facilities can. It's supposed to outline high-priority areas and activities and include parallel, medium- and low-priority observations that you wish to make. You should indicate the major elements that you wish to either observe or, if you can't actually observe, that you want demonstrated, and identify the specific individuals to be interviewed.

And the purpose of this plan is to really kind of get in your head when you walk into that facility just what your goals are: What is it that I'm coming here to look at? You know, you don't really need the plan -- at the moment you walk in the door, you should know what it

is you're going to do.

Okay. As far as maintaining your focus, the inspectors, following or even during the entrance, establish what activities we wish to observe and explain the new process.

And Mr. Woodruff has been with us when we've been in the entrance interview at a hospital that had an HDR, and we said, "Oh, yes, we're interested in observing the HDR," and, "Fine, we're going to do it in 45 minutes," you know. Now, that's cutting it a little bit close.

But we really want to lay it out right from the beginning what we're there for, explain it to management and continue to explain as we go along to the -- usually the RSO or who ever we're going with, because we would also like them to pick up some of the performance-based philosophy and carry that out in their routine audits.

And, basically, what we're telling them is we're trying to focus on issues important to safety and reliability.

I was going to tell more war stories, but I thought I'd give you some examples of the kinds of things that show up on our inspection plans. For high-dose remote after-loaders -- and we've been pretty lucky about hitting these -- we want to watch the quality -- the QA

checks that are done, usually by the HP or the RSO, and the planning and the treatment process.

And usually, that's a little bit hard to -- we don't really regulate the treatment, but it's very interesting to see how the team-work comes together. And I think that is going to be the major mode for these new technologies. We're just putting a gamma knife in today, as a matter of fact, in Lincoln. And that's the same thing.

There's usually a whole team of people that has to come together, and it's -- that's a tricky area to regulate. You can't just put that in as a procedure. So you want to see that that takes place.

For the nuclear pharmacy -- I'm sure you all know this -- go early. That's when all the action is. It's -- unfortunately, it's usually at two or three o'clock in the morning, but that's when you're going to see how the pharmacist is really flying then, getting all his doses loaded up. They're receiving packages, and they're shipping stuff out.

One of the things we came up with was to accompany the delivery vehicle, although we don't actually ride in the vehicle because they get -- because of liability issues. But you can still, you know, drive your care along behind them, especially if it's just --

they're going out to the local hospital.

Once in awhile, you find some interesting things when you get to the other end. So that's a very important observation we've discovered -- and, of course, the receipt of packages.

Nuclear medicine. I'll be interested to see how the pilot project goes. Basically, you want to see package receives. You want to make sure that the people that are doing surveys know how to do surveys. I mean this is pretty -- and injections, xenon use.

My old-timers inspectors, particularly in this area, say, "Well, that's how I've always done inspections," you know. So the -- you like to watch and see that people either know or can demonstrate to you what they're doing.

A few more examples. I pulled the manufacturing one off of someone's inspection plan -- who's going out next week. But, you know, basically: What's the receipt of the material -- and the storage area, the production line and the disposal? What are the things that you want to observe?

A little footnote on the educational: I wish we had followed the receipt-and-delivery process through at one of my licensees, because they did manage to lose a package. And when we went to, you know, go into the

detailed investigation and try to figure out what had happened, some of the controls that we thought were in place weren't there. There were no the chain-of-command and sign-off-types of things that you would expect to be in place.

I really haven't established how that happened, but I think we were probably relying on a purchase requisition form and, over the years, that form went away and then the need to sign off went away. If we had gone along and observed, at least, perhaps we would have caught that. I can't guarantee we wouldn't have still lost the package, but, anyway, that's just the kind of thing that that picks up.

We have three irradiators in Nebraska. And one of the things we've been doing is -- there's usually sort of a daily, weekly, monthly or quarterly check-list. We like to observe the person that's supposed to fill out the check-list go through the check-list.

One example of something we saw was that the person -- I think he was supposed to take a survey meter reading off the irradiator pool. But what had turned out was that he didn't really know how to read that scale.

And so we were -- the management on the way into that were a little bit skeptical about what we were trying to do, but we said, "Well, this is a demonstration

of a weakness in your program; you need to have better training. You can't just -- you know, I think that the person that's reading that meter needs this for her or her personal protection. They need to know what that meter is saying and what it means to them."

So we actually got the management turned around a little bit. As part of what they could do on their annual audits, they can also -- they can do the same thing we do. They can go in there and observe.

Well, back to shrinking resources, "Inspection Frequency." Nebraska -- for good performers, we can extend the interval until the next inspection. Basically, the cut-off -- we still have up to Severity Level 5. We haven't quite gotten rid of the Fives yet.

So our cut-off is two or less Severity Level 4's, and it has to be done at the completion of the current inspection. You can't just do it the next time the inspection rolls around and your program's in trouble and it's behind; it has to be done at the time.

And, for instance, if it's a Priority-level 1, you have the option to extend it up to a year. So there's quite a bit of flexibility there. The poor performers, of course, must be inspected more frequently.

And just running through, What's new about it? Of course, the old-time inspectors will -- they'll

disagree with me, because they've always done it the right way.

But, basically, it's -- in the past, more of the focus was on reviewing the document structure. You go in, and you've got your regulatory check-list, you've got your procedures they're supposed to follow and you've got all the records you're going to check. And at the present, the focus is on observing activity.

And you try to change your whole orientation by having your plan. You do your walk-through right away. You do your observations. You watch those individuals at work, and, from that observation, you should be able to identify problems. Then you can use the records to verify what you think may be a problem. And the bottom line is: You're trying to focus on the products and the results.

So those are my prepared remarks, and I was hoping that would generate some discussion from the floor.

MR. CAMERON: I'm sure that it will. And I guess that I would give Shan the opportunity.

Do you have any comments on -- Shan, on what you've heard from Art and Cheryl before we go out or -- go to them for comments on each other's? Shan, anything that --

MR. SHANBAKY: Not really.

MR. CAMERON: All right.

Art, you referred to Shan's presentation. Do you have anything more to offer on either Shan's or Cheryl's presentations?

MR. TATE: Not really. I do -- I'm concerned about possibly the complexity of the training and being able to get the experienced people that you will need to make it work. If -- I'm concerned that, if we send inexperienced people out with the proper training, the lack of experience will hurt the inspection.

MR. SHANBAKY: I think that training is one of the most important issues here to be resolved prior to the initiation of the program. At the NRC, we have already given training on the draft program to the staff in Region 1. NMSS is going to actually go out to the regions with an extensive training program on the new pilot program before implementation.

So there is a significant amount of training that will be done, but what is actually more important is that, for a certain population of the inspectors, you need to have a culture change. Some inspectors are very detail oriented; they don't believe that they did a good job unless they've dotted every I and crossed every T, and they don't really feel comfortable with the new

concept.

And that's a very important function of management and supervision in terms of coaching and counseling to make sure that the people are going to be following this pilot program, that everybody will be following the pilot program.

MR. CAMERON: Okay.

Cheryl, do you have anything to offer before we go out?

MS. ROGERS: I guess I would echo that the training is important. But the older inspectors aren't uncomfortable with it. It's -- the new inspectors still want to, you know, go back to that check-list. And we still use -- you know, all the regulations are spelled out with a, "Yes," or a, "No." You are -- if you didn't look at it, you just say, "Not observed." And that's kind of a hurdle to get over.

And then we also tried to add to the inspection report, you know, "What was the performance-based thing that you looked at?" And this will help clue in the people that are reading it in the next inspection on what you looked at at that time and sort of leave the door open for the things to look at.

And so it is difficult because, once you think you have to fill in every box on the check-list, it's

hard to get out of that. And I don't know -- I'm kind of wondering if, you know, we should go ahead and change our whole inspection report, but I'm not really crazy about going back to the old narrative reports, either.

MR. CAMERON: Okay. Very interesting.

Aubrey?

MR. GODWIN: A couple of comments. First of all, up front, I like the idea of performance-based inspections even though I have a couple of questions about them. And I was a little surprised at Texas' comment that their X-ray people do about 20 to 25 inspections a month. They tried to fire me out there -- they had legislators going to the government to fire me for doing less than 50.

(Laughter)

MR. GODWIN: So, you know, I guess it's culture shock and all of that.

The questions have to do with the fees. One of the concepts that, apparently, got tied in with our fees is that they're paying for the inspections. And if you change the inspection process significantly, particularly so that the X-ray types recognize that you're not, you know, checking every tube and you're not checking every little item, they feel like they're cheated and they want to go back and reduce the fees, which is sort of a

counter-movement.

The other issue came out as a legal point. We had a whistle-blower at one of our licensees who subsequently quit or was run off, depending on which point of view you want to take. But I had to testify or give depositions for several hours, and the thrust of it was: Did we check everyone's regulations to make sure that they were doing everything right; And, you know, if they had a single individual who, for one day or even ten minutes, didn't wear their film badge, was that or was that not a violation?

When ever you get into these kinds of things, I'd like you-all's reactions about how the performance-based would apply there and how we would go with that.

MR. CAMERON: Does anybody from the panel want to comment on the licensee perspectives that Aubrey brought up or the -- I guess, the compliance enforcement issues that might be raised by performance-based inspections?

Shan?

MR. SHANBAKY: I think what you brought up are very significant challenges. There is no really easy answer for any of these. We meet those challenges every day.

Whether we are doing performance-based inspections or whether we are doing full-detailed inspections, we always get in a situation of allegers coming to the NRC or going to our IG and alleging that the inspector did not do a good job because there was a violation that they were aware of and the inspector did not identify these violations.

It is a fact of life: No matter what type of inspection we are going to be doing, there is no way that we will identify every single violation. It's a fact of life that we are doing a sample type of inspection.

We are not living at these facilities, and we are not there every day. And it is very important that everybody, including the licensee management and licensee staff, knows that we are doing an inspection based on a sample and, if they know of any problem with the program or -- that it behooves them to come to us and tell us up front and not wait until the inspection is finished and call the IG.

But this is one of the challenges. This could be also increased with doing performance-based inspections because, like what I said in my presentation, some people may get the wrong impression that this is not really a good inspection, that it's an inferior inspection. And it is very important to do lots of

education of licensee staff and licensee management.

Get them in on it early on in the inspection. Get them in on it early on: What exactly we are up to, what we are doing and what the advantages are of what we are doing. But there is no straight, easy answer to this.

MR. CAMERON: Art or Cheryl, do you have anything further to add in regard to the points that Aubrey has raised?

MR. TATE: I have just one comment.

And, in fact, Aubrey, your early point regarding work load is quite well taken. Our inspectors through the years have gotten into doing audits where we would go into a facility and virtually do a physicist's evaluation of a facility.

And we're having to re-train and develop a new culture which says, "Check those things that are necessary to ensure public health and safety," and go from there. And, as Cheryl pointed out, it's just a matter of training.

MR. CAMERON: Okay.

Cheryl?

MS. ROGERS: Let me see if I can -- what was my second thought?

(Pause.)

MS. ROGERS: Well, I lost it. I'm sorry.

MR. CAMERON: All right. Well, maybe it will come back.

But let's take Don so that he can sit down, and then we'll go down the line from Ken on through.

MR. BUNN: Thank you, Chip.

Donald Bunn from California. I just want to add to what Aubrey said about the fee payers. It took us years to collect fees from our universities, who steadfastly refused to pay us because they said they weren't obligated.

Finally, when they did start paying because we had a bill passed, we decided to start doing some sampling of their X-ray facilities, rather than do every tube in the place. The first thing I got was a complaint that we weren't giving them their money's worth. So that's the other end of the coin when we're getting into these abbreviated-type operations.

But, Cheryl, I'd like to ask you: Has your system undergone review by IMPEP?

MS. ROGERS: Yes, it has. And we passed with flying colors?

MR. BUNN: Well, that's good news. Okay. And you did say you hadn't modified your form yet. Do you plan to develop a standardized type of inspection plan

for a certain category of licensee?

MS. ROGERS: No. We leave the inspection plan up to the inspector. So the plan is -- you know, the inspector has to decide what it is he wants to observe, and that's based on, you know, what activities are available and anything that may have been called out from the previous inspection or what type of licensee it is.

The forms -- I just wonder if the forms keep people thinking, you know, "I've got to get every box." And so that's why I kind of wonder if there's a better way to do it, but I don't want to go back to narratives. So --

MR. BUNN: Yes. I don't, either. But it seems like that might be appropriate, especially in some cases. Thank you.

MR. CAMERON: Okay. Thank you, Don.

We're going to go to Ken and then down the line. And then I would at some point ask perhaps Paul Lohaus to just provide the NRC's perspective from -- the IMPEP program's perspective on performance-based inspections.

Ken?

MR. WANGLER: Ken Wangler from North Dakota. This is for Cheryl.

When -- you said that you select performance

the elements that you want to look for before you go into the inspection. Are you talking about like you might -- one performance element might be shipping and receiving, and so then you look at those issues kind of in detail and, say, overlook the review of the QM plan? Or -- I guess I'm curious.

When you say you select performance elements, what does that -- is that a broader categorization of the individualized check-list, or how do you -- what is a performance element? I mean do you have a list of performance elements and then they select two or three, or do they just select one? Or how many of those do they look at?

MS. ROGERS: Well, of course, it depends on the size of the licensee and the facility. But, basically, you're looking for particular work activities that you can observe. And in some places, it's easier than in others. The irradiators -- you know, they're working every day. And if they're -- they weren't planning on doing a check-list, we might ask them to do a check-list. But --

MR. WANGLER: Medical -- stick to --

MS. ROGERS: Medical --

MR. WANGLER: Let's talk about a medical facility so that we get apples and apples.

MS. ROGERS: Okay. Well, for some reason, we've been able to hit a lot of the HDRs, which I thought was kind of surprising. To do a normal nuclear medicine facility, it's pretty difficult to catch abrachiotherapy. I've never actually been there on a day that they're doing abrachiotherapy. But the HDRs must be more common; because we've managed to hit those, we come more often or something.

So we are really interested in observing the activity. That's the first thing that you're trying to do. You're trying to, you know, be the fly on the wall. And if you can't actually observe it, then you may request the demonstration, which would be the case, for instance, for surveys if you didn't -- if the timing didn't happen to be right.

But if you're sticking around for a little bit, you know, and you come in early in the morning and you just watch for, say, the pharmacy, if you've been there from when they started for, say, three hours, you've seen most of the activity that's going to take place at that facility. And then you just sort of -- then, you know, you, of course, have to interview and talk to them a little bit.

But by that time, then you know what records it is you need to follow up with. And that shouldn't take

that much longer. So it's changing the whole focus around.

Did I answer your question?

MR. WANGLER: Well, what kind of -- but let's say you do go into a facility and you want to look at their HDR. That becomes a performance element that you want to look at. So then, once the inspector has been there whatever -- three to five hours and been fortunate enough to observe a procedure, then you don't even look at the leak-test records, the personnel dose monitoring, the shipping and receiving or the QA of the dose calibrator for Tech 99?

I mean do you just then not look at all the rest of it? You select one element -- you select the HDR for performance, and then that's all you look at? Or --

MS. ROGERS: Well, of course, with the HDRs, you have to go every year. So of -- to me, that sort of means, well, it's not all that bad if it -- the nuke med can theoretically go every three years for an in-depth, and you haven't missed anything.

MR. WANGLER: Okay. Well, then let's take the HDR out.

MS. ROGERS: Okay.

MR. WANGLER: Let's take a normal nuclear facility that's not HDR. Here's kind of what I'm getting

at: We just had our IMPEP, and we got great reviews on the thoroughness of our inspections, which -- when we look at personnel effort, we're probably two to three man-days into a medical facility inspection because we're very detailed and very prescriptive, and, of course, then we got gigged on the timing.

You know, if we take too long, we don't get them done on time and we don't get the reports out on time. And the two kind of offset each other. So we would certainly like to be more performance based.

But take a nuclear facility -- a nuke med facility that doesn't have HDR. What are performance -- do you look at one performance element, or do you look at five? And are they major topic areas where -- you know, like I said, shipping and receiving, or is it dose calibrator procedures? Or --

MS. ROGERS: Yes. I think, if the inspector came in and said, you know, "Based on the previous inspection, I'm going to select four inspection areas that I want to concentrate on, and it's receipt of materials, it's surveys, it's -- I want to really check out xenon use and" -- I don't know -- something else, maybe, "the dose calibrator checks," or whatever it is -- and I am -- I mean I would expect everybody to always look at personal dose symmetry records.

I don't think that one ever goes away. You always look at those and, also, bias toward checking leak-test records. So, personally, you know, you had better tell me you looked at those two records. So those are always on my list.

But no, if you don't get to something else, you identify that in your report. Say you didn't spend any time on the transportation records and -- they've got some sealed sources and maybe you didn't check that they have all that paper work there. But that's identified in your report, and the next person that goes out sees that as an area that didn't get an in-depth and can factor that into their plan.

So you pick the areas that you're going to look at. And it's -- you're looking at how they perform the work in that area. So you may not get to all the areas.

MR. CAMERON: Okay. Let's move down to Mel.

MR. FRY: Mel Fry, North Carolina. I'm somewhat confused tying this talk to the previous talk, where we started off with the hierarchy with the fire marshall.

And I think I understood the complaint being that all those lower-level inspections' inspectors just came in and walked around and looked at things and saw what was wrong and that was a poor, rotten, kind of

primitive way to do it and, yet, it certainly is a very efficient way, and you can do them rather quickly.

I'd like a response, either from the university or from the panel, as to -- am I putting apples and grapefruits together?

MR. CAMERON: Can we get some perspectives from you guys on that issue? And I know that Bob and everybody are still hanging around out there for the photo op. So maybe we can get them in here to give us a perspective on that, too.

MS. ROGERS: May I go quickly?

MR. CAMERON: Go ahead, Cheryl.

MS. ROGERS: Well, just a quick response there. The way I took Bob's presentation was: Let's get rid of all those notice of -- those violations that keep coming up over and over again; you know, let's educate people so that we don't have those same violations.

And we have a 591 Form. The more 591 Forms that we can issue -- you know, we'll still spend the same amount of time as far as the performance-based inspection goes, but, hopefully, we can give them a 591 at the end of the inspection and save ourselves all that administrative cost.

MR. CAMERON: Okay.

Bob, let me -- thank you for staying around.

DR. EMERY: Sure.

MR. CAMERON: And let me put this in a little bit of perspective for you. We've been talking about performance-based inspection and some of the reasons why programs are going that way and some of the constraints. And Mel Fry from North Carolina asked a question that, basically --

If I summarize it correctly, Mel.

-- was that there seems to be a conflict between some of the findings that you were describing and this performance-based inspection.

Do you want to just re-state that quickly, Mel?

MR. FRY: I'll come back at you, Bob. You started off with the fire marshall and came on down. And I got the impression that you were somewhat less than happy with the idea that what those inspectors did was kind of walk around the plant and look around and see if they saw anything to write up and then they wrote up whatever they saw.

And as I'm hearing aspects --

Not the planning, Cheryl. That was a new note to me, and that helped me a lot.

But what we're hearing out of these performance-based inspections is that, instead of filling out the check-lists and going down the line and coding

all the violations, you go in and you walk around and you look around and you see what you see and you write up what the violations are.

MR. CAMERON: Do you want to give us a perspective on that?

DR. EMERY: Yes. Thank you.

I -- my -- I guess my personal complaint about the fire marshall is not that they used their professional judgment in assessing the violations; it's that they don't have a consistent way of measuring it. And so we don't know what the numbers are. They just go out and come back with this intuitive list that they've created.

And I think there's some real value in having a document and saying, "Here's the outline. And here's -- you know, here's the violations we've found. And we did it in a systematic way, and here's the percentages." I think that there's some value there.

Mike Charlton and I have talked about the idea of performance-based inspections at length, and, at the risk of causing your heads to explode, let me lay this one on you here. This is over cases and cases of beer, as you can well imagine. But --

MR. CAMERON: Yes, we can well imagine that.

DR. EMERY: Yes. Because we're in a university

setting, we can get away with this.

But, actually, it's kind of interesting in that, of all the data that we threw up there, never did you ever see violations issued for an exposure -- a dose over 5 rem or a release in excess of, you know, the ALI or something like this.

So if you kind of take a step back and think about it for a second and say, "Well, what's the original intent for these regs" -- take sealed-source leak-tests for an example -- the intent is that an individual should not be exposed uncontrollably to an amount of radioactive material in excess of .005 micro-Curies. So perhaps a performance-based inspection might say, taking sealed-source leak-tests for an example, that end-point event did not occur. We didn't -- the leak-test is not occurring.

However, these precursor events are there. The forms aren't completed, it's not the right data, or something like that. So, in other words: Maybe performance-based inspections consist of measuring the radiation levels or, you know, removable contamination or something like that, and then these other things are precursors to those events.

Perhaps the hardest problem we have in this business is convincing management of the value of

prevention. One of the great things the radiation safety business does is prevent, but I think the challenge is to get management aware of the fact that we need those resources and the reason we have good programs is because we prevent a lot of things from occurring.

But it might be to the benefit of the profession, I think, by showing that there are the tangible events that occur -- that are not occurring -- you know, over-exposures, or whatever -- they're not occurring. And then we go back, and here's these precursor events, which maybe you could address by writing a ticket or something like this, that you would evaluate in subsequent inspections.

MR. CAMERON: Okay. Thank you, very much.

Let's go quickly to Bill and Richard and, perhaps, Paul if he wants to say anything about IMPEP. And then I think we need to take our picture and break.

(Laughter)

MR. CAMERON: The refreshments are out there.

Bill?

MR. DUNDULIS: One potential problem that I see with these performance-type inspections is: It's going to be very much a function of how stable and how trained your staff is. In many instances -- and I don't mean even your -- the inspector staff. I mean the people

being inspected.

A performance-based inspection may come in, and if you've got people there that know what they're doing and can do it in their sleep, then looking around and just seeing if it's done may be fine.

But if you get into a lot of your research settings, particularly in the universities and some of the hospital medical centers, you know, where you've got a post-doc who's there for a year or a doctoral fellow or something, and, a lot of times, if there's no infrastructure there to ensure that, like, they're properly trained to do surveys, they're properly trained to do this and they're properly trained to do that, in many instances, you may get a, quote/unquote, "Good inspection," in spite of, rather than because of, the problems that are there.

And my big concern -- not that I'm an advocate necessarily of looking at every single piece of paper in the facility, but, sometimes, those more-detailed looks can give you an idea of where your problems are going to be six months or a year from now.

And I'm just afraid that, by doing these kind of quick, feel-good walk-throughs, you're emphasizing the present at the risk of failing to identify sleeping dogs that could wake up and really bite somebody in the

future.

MR. CAMERON: Okay. Thank you, Bill.

Richard?

MR. RATLIFF: I think that kind of tracks into what I was going to say in that, you know, those of us that are in health departments, we have our food and drug and our medical devices, and they're doing the hazards inspections, you know, the hazards analyses of critical control points. And we really do that, but we just don't use that terminology.

But I think, looking at that -- looking at those critical control points combined with the performance-based, we really have the best of both worlds and could really avoid any of the pitfalls that Bill's worried about, but, yet, still get into where you're really looking at performance.

MR. CAMERON: Okay. Thank you, Richard.

Paul, do you want to close out with some words on IMPEP?

MR. LOHAUS: Thank you, Chip.

Maybe by way of background, I really supported having this area on the agenda. And I think there's going to be some further discussion, too, in the licensing area and performance-based regulation because, when I look at this, we're really in a transition. And

there's a lot of reasons for this, I think.

There's a lot more focus on the outcome of our program, as opposed to the outputs. We've talked about those terms. What the focus is really on is protecting public health and safety, as opposed to looking at how many inspections we do and how many violations there are, although that data is important from a certain standpoint.

But the real focus is on: Are we really protecting public health and safety? And I think the IMPEP review process is really performance based. And in looking at that process and looking at the transition that we're going through in our whole area of regulation, to become more performance based, to look at where the real risks are and to put our effort into those areas to achieve the greatest degree of protection in an efficient way with focusing on the major areas -- and I see the IMPEP process as focused on performance.

And, also, it is a dynamic process. One of the things we've tried to do is reflect experience back into that review process. So I think, as this program matures and as we move more in the direction of performance-based inspections, the IMPEP process is going to move in that direction, as well.

And I think we're really there -- I know, in a

number of areas, there have been suggestions and comments offered in terms of making our programs more performance based. And, you know, we're doing a lot at NRC.

And I think this is a topic that is really ripe for discussion. And the way I see it, we're in a transition; we're moving through, we're becoming more performance based and more risk informed. And we're going to see more of that, and it's going to be important for all of us. And I think the IMPEP process will be able to reflect that and continue to maintain the performance-based review process that we have.

Maybe, with that, let me ask others, because I look at the IMPEP process as really a joint process. The agreement states and NRC staff are involved in the process, and I'd be interested in other comments or observations on the review process, as well, if there are others that would like to address that issue.

MR. CAMERON: Maybe we could have people think on that and we can spend a few moments tomorrow to address that. So we'll put that in the paddock for tomorrow to re-visit it.

I would just like to thank --

Art and Cheryl and Shan, thank you, very much.

And, also, Bob and Mike, again, thank you.

(Applause)

MR. CAMERON: And who's going to orchestrate the photo op?

DR. EMERY: Well, we need the state signs and the book. Maybe up here?

MR. CAMERON: Okay. The state signs and the book? All right.

(Recess.)

MR. MARSHALL: Can we reconvene? Everyone, come in and have a seat wherever you'd like.

I think there are a couple of ground rules that ought to be established. I've not chaired this meeting before, and I wasn't at this meeting last year. But the question has come up already about it being open to non-Agreement States people that are here, the NRC and others.

VOICE: Do you want a motion?

MR. MARSHALL: Can I -- is there a motion one way or the other?

VOICE: Move to keep it open.

VOICE: Second.

MR. MARSHALL: Is there a second?

There has been a motion and second to leave this meeting open to all meeting attendees. All those in favor?

(A chorus of ayes)

MR. MARSHALL: Opposed?

(No response.)

MR. MARSHALL: It passes. NRC's welcomed to the meeting. I should say NRC's allowed into the meeting.

(Laughter)

MR. MARSHALL: Okay. Is there such a thing as protocol to do roll-call?

(Pause.)

MR. MARSHALL: This -- no? I see a shake of the head by the parliamentarian from Arizona.

MR. GODWIN: I think you've got a quorum. You don't have to have it.

MR. MARSHALL: I think we do.

I appreciate everyone hanging out. We'll have some action here on this agenda. I'd like you to note a couple of additions to the agenda.

I have another proposed resolution that will be distributed. In fact, let me begin distribution of the two. I have one from Jake Jacobi: A proposed resolution to support the Colorado GL exemption. And I have a second one, from David Walter, to support standardization of exposure limits.

These will be presented with a short commercial by each sponsor today. And we'll have tomorrow -- I

think there are presentations on each tomorrow. And then we can take action if appropriate at tomorrow's session.

(Pause.)

MR. MARSHALL: The last item to be added is a comment from Richard Ratliff. We'll deal with it at the tail-end of today's session. It was an item that came out of last night's dinner meeting of OAS officers, the host state of Texas and Chairman Greta Dicus about getting support from our congressional representatives for a couple issues.

Lastly, an item that we'll start with a thing that Kathy Allen brought up, just a short note, a short, levity item.

Kathy, do you want to take the floor for a minute?

MS. ALLEN: Sure.

MR. MARSHALL: I appreciate everyone being here. We will try our best to be out of here by five o'clock. I think the hotel wants us out by 5:00, so we'll try to stay on that schedule.

MS. ALLEN: Jim Myers?

MR. MYERS: Yes?

MS. ALLEN: This is something that Jim Myers and I kind of put together. This is almost -- like the contest, it's going to help you get your blood flowing a

little bit.

If you haven't been to the NRC web site, you have to check this out -- I'm sorry -- the OSP web site: This little button with, "What's new." It's very cool, and it will keep you up to date with the latest. And, in fact, Jim put on -- the agenda for this meeting on there.

So follow up and, at least, look at it, book-mark it, or whatever. Check it out. Okay?

To win fabulous prizes: Do you know which star was added in honor of the 31st Agreement State? Everybody look. Here's the diagram. I'm going to help you narrow it down a little bit. If I go too fast, just hang on.

(Pause.)

MS. ALLEN: I love technology. Okay. There's your stars.

(Laughter)

MS. ALLEN: I have A, B, C, D, E, F, G or H. Everybody think.

(Pause.)

MS. ALLEN: All right. Ohio is excluded because they already called and asked. So forget it.

(Laughter)

MS. ALLEN: Marcia, no paying anybody to answer it right.

Okay. Does everybody know which number you have or -- which letter you have?

(Pause.)

MS. ALLEN: Okay. Everybody stand up, and keep your number -- letter in your mind. Up, up, up.

MR. MARSHALL: Play along here. This will only take a minute.

MS. ALLEN: Okay. Everybody, up, up, up.

(Pause.)

MS. ALLEN: Have you got your letter? If you have H, sit down.

(Pause.)

MS. ALLEN: G, sit down.

(Pause.)

MS. ALLEN: C, sit down.

(Pause.)

MR. ALLEN: Bob, sit down. You're from Ohio. You can't -- you don't count.

(Pause.)

MS. ALLEN: F, sit down.

(Pause.)

MS. ALLEN: E, sit down.

(Pause.)

MS. ALLEN: D, sit down.

(Pause.)

MS. ALLEN: Okay. Jim?

MR. MYERS: Yes?

(Laughter)

MS. ALLEN: All right.

The standing people should just have either A or B. Right?

MR. MYERS: Uh-huh.

MS. ALLEN: All right. Ready? A, sit down.

(Pause.)

MS. ALLEN: It was B. B was added. So, all the Bs, stand up. And I'll give you your prize.

(Pause.)

MS. ALLEN: Thank you.

MR. MARSHALL: Thank you, Kathy.

The first item on the proposed agenda was suggested by Ken Wangler of North Dakota. And the title that was stuck on it is, "A discussion on T Norm," with the question, "Are gas and oil rules included?" And I will turn the floor to Ken to open comments.

MR. WANGLER: You're catching me by surprise here, Stan.

This -- I've got to say that this is something -- this was my perception of Part N. And in the last -- since I've said this, in reviewing it, I'm not sure that they are excluded.

Initially, when Part N came it, which was March of '97 -- is that right?

March of '97, I think, for who ever raised that.

I took those to -- my understanding of them then was that they were not very relevant to exploration and production waste from oil field activities. It just -- the didn't seem to fit. I didn't know where they fit in.

I've since reviewed them since I spoke with you, and I'm not sure that this is a relevant point of discussion any more. And I also know that we're having a big T NORM implementation discussion Friday afternoon and Saturday.

MR. MARSHALL: Very good.

(Laughter)

MR. WANGLER: Really?

MR. MARSHALL: Let's move to the first proposed resolution, with comments by Jake Jacobi.

MR. JACOBI: I'm not going to say too particularly much about this because I've got a presentation tomorrow, and it's about 20 minutes. So does anybody want to spend 20 minutes, and I'll give it now?

(No response.)

MR. JACOBI: Basically, right now, the way the regulations are established -- and this resolution's for the NRC, but the same thing applies to the SSRs -- we have two classes of licenses. Even though both classes can expose their irradiation workers and, to their rem-per-year level, can exceed release -- their release limits, we have one class which has to maintain exposures below a certain level, and the second class doesn't.

We have one class of licensees that have to clean up an area before they leave, that have to provide instruction to workers and have to post radiation areas. And we have the second class of licensees that are exempt from all of that.

And the proposal is basically very simple in saying that all licensees should be required to limit radiation exposures to their workers and to the public. It goes into a little more detail on what we're specifically asking, but it's basically to remove the exemption that exists for source-material general licensees.

Right now, they are exempt from Part 19 and Part 20. And there is -- in my mind, there is no basis to say that this whole class of licensees out there can go and expose people to any level they want without control.

I'll talk more about that -- about my presentation. And maybe after the presentation at the next business meeting would be the time to have this discussion.

Let me just say one other thing. The proposal to the NRC was co-signed and submitted by the State of Colorado and the officers of the Organization of Agreement States. And I think the Federal Register posted it as, "Colorado and the Organization of Agreement States." And I've heard some people get a little upset, saying, "The Organization did not approve this."

And so let me clarify that it was the officers of the Organization that submitted this. And I think that's the way it was intended, and it got published incorrectly in the Federal Register.

And, Stan, since you co-signed it, if you have any other comments?

MR. MARSHALL: The proposed petition was addressed by OAS officers in May, and I co-signed with the State of Colorado on behalf of the officers only at that time with regard to a filing process in mind and an urgency issue in Colorado.

The second proposed OAS resolution, from David Walter, is a proposal to standardize exposure limits.

David?

MR. WALTER: Originally, my idea on this was to take this to the conference and put it in as a resolution at that time, but it was discussed with me that I might want to bring it before the OAS and give you all, I guess, a little fore-taste of the feast to come.

We all have had an -- the OAS has already put out a position paper that essentially says very much the same as what this ends up coming up with. And what I'd like to do is bring this forth to you guys, let you take a look at it and think about it during the discussions tomorrow and the talks tomorrow that go on with the clearance criteria.

But the clearance criteria alone isn't the only thing that's involved here. It has to do with just plain exposure limits for everyone, and there are too many of them.

And it doesn't matter whether or not you look at just the NRC or if you look at the NRC, EPA and DOE all together; they're all on a different wave-length. And I didn't even consider the IAEA one milligram for tools per year. I couldn't find any, to be honest, so I couldn't give you a good reference for it.

So I'd like you to take a look at it and see what you think about it and discuss it a little bit tomorrow at the second part of the meeting. And if you

want to go through with this as a resolution, I think that would show unity, because I have a feeling that the same or similar thing is going to happen with the conference and that would just show that much more unity between the two groups, as well.

MR. BAILEY: David, may I ask a question?

MR. WALTER: Yes.

MR. BAILEY: This does not reference some of the things that the Army Corps of Engineers is proposing.

MR. WALTER: No, it does not.

MR. BAILEY: And I think that they are proposing still different limits than are here. And those certainly need to be --

MR. WALTER: That may be.

MR. BAILEY: -- worked out --

MR. WALTER: I haven't seen those limits, and that's why they weren't put in here. But I mean all of the whereas's could be put into one just saying that, "Whereas the following rules or guidance documents have all these different criteria, it's a bunch of bunk."

(Laughter)

MR. WALTER: There should be one rule. There should be one milli-rem. I mean a milli-rem is a milli-rem is a milli-rem when it comes to these exposure limits. So why is it okay for 500 okay one place and why

is it not okay, unless it's 1 milli-rem, somewhere else? And that was my point in this.

But yes, any other places that anyone's aware of that we can get documentation and specification to put into these would be a great thing to add.

MR. BAILEY: Just for a point of clarification, does the Part N now address the 25 milli-rem, or does it go to 50?

MR. PARIS: Part N has -- leaves that open to the states -- the implementing states to select.

MR. BAILEY: You know, well, I think we should include the CRCPD's recommendations and the list should be made uniform.

MR. WALTER: Do you mean on the resolution part of it?

MR. BAILEY: Yes. I mean, and that's something that, at least, if this organization's members support it, it should be an easy thing to carry in the conference.

MR. MARSHALL: Arizona?

MR. GODWIN: I notice this is talking about federal agencies, yet there are to non-federal agencies mentioned. And I would propose another one. The National Council on Radiation Protection is not a federal agency. The International Commission on Radiation

Protection is not a federal agency. And I would suggest that these -- if we're going to talk about federal agencies, we need to delete those.

And since this is talking about exposure limits established by the federal agencies, I would -- for that same reason, I would suggest the conference would not be an appropriate addition to this -- or Part N.

MR. MARSHALL: You'd suggest not adding the conference, or just changing the title?

MR. GODWIN: I think it would be cleaner if we do not add the conference and if we take out those two councils.

MR. PARIS: The Health Physics Society has also come out with a position.

MR. MARSHALL: North Dakota?

MR. WANGLER: Well, I think leaving the -- I think leaving those organizations in there adds a lot of credibility to the standard that the NRC currently has. That would be my only reluctance to take them out. It seems like it's such a free-for-all between the federal agencies that those other organizations added some stability; any way, you had a number to shoot at.

MR. PARIS: And the conference.

MR. GODWIN: But when you're talking about addressing federal agencies, that -- these people did not

establish the federal standard, and that's what you're talking about: The standardization of -- for limits established by U. S. federal agencies.

MR. WANGLER: No. But I think you're asking the federal agencies to set a uniform standard. And I think it's still okay to say that there are some groups out there, some very credible groups, who have made some references to standards that -- just as a bench or a base-line --

MR. GODWIN: Maybe --

MR. WANGLER: -- benchmark.

MR. GODWIN: -- you need to change the title --

VOICE: Yes.

MR. GODWIN: -- to say that.

MR. MARSHALL: Steve, Illinois?

MR. COLLINS: The ISCRS, Inter-agency Steering Committee on Radiation Standards, has already been charged to do just this. They've been working on it several years and have made --

VOICE: No progress.

MR. COLLINS: -- very little progress --

(Laughter)

MR. COLLINS: -- in that basic charge.

They've made a lot of progress in a lot of areas, but that one thing, the so-called risk

standardization, is one area that, particularly, Joe and I have basically been totally frustrated by the lack of progress.

And it's basically two different philosophies with one agency -- one of which -- we, by our written position statement, pretty much agreed with one philosophy, as opposed to the other, but that other agency having the authority by congress to set a basic limit, which is something right now that some of us would not want to do at the numbers they're choosing under their philosophy.

And this organization did present to the Commission a position statement which basically said 100 milli-rem per year as a basic limit, with each state implementing fractions of that as they deemed fit for certain areas or different -- by clean-ups as a portion of that TED E.

So I would caution you about going forth with this as it's currently worded without putting a recommendation as to what you thought that limit should be. And, like I said, the position statement presented to the Commission by the OAS board in fact did have that limit in it or -- limits.

MR. MARSHALL: Thank you, Steve.

MR. O'KELLEY: Comment One: I don't think

we've listed the limits at the boundaries of the nuclear power plants in here, which could be added into it. And under the part where it says how it will be resolved, it says, "Set identical radiological release criteria." Now, are we looking for release criteria, or are we looking for exposure limits? I thought we were trying to do exposure limits.

MR. MARSHALL: Let's --

MR. O'KELLEY: And I think --

MR. MARSHALL: Let's hear from David a second --

MR. O'KELLEY: -- it may be semantical, but --

MR. WALTER: All right. A couple of things here. Let me make it clear that my intent from the beginning of this was to say, "For overall limits." And in our discussions, virtually everything that we ended up getting was, "Release criteria." And that's why it ended up being that way.

This is something we threw together, to be honest, to try and get ready for this meeting as quickly as possible because I planned on doing it for the CRCPD. But there are going to be -- obviously, as you guys have pointed out, there are some areas that we need to clean this up a little bit.

But it's something that, because of the fact

that we have this meeting now, if we're going to try and give a unified stance on it, needed to come forth now, instead of trying to wait until later on. I --

MR. O'KELLEY: You --

MR. WALTER: I would just prefer it to be just the maximum exposure limits.

MR. O'KELLEY: Well, I was just wanting to make sure I understood what we were referring to.

MR. MARSHALL: How about Ed and then Roland and Steve?

MR. BAILEY: The -- at the Health Physics meeting, Greta gave a talk. And one of the points in her talk was, essentially, the dose limit harmonization effort. And it might be beneficial if we could get a copy of that to look at some of the suggestions that she made and, basically, her commitment to working on getting dose harmonization -- reg. harmonization in general, I guess, we should say.

MR. MARSHALL: Roland?

MR. FLETCHER: Yes. If -- first of all, if,you know, there's already a position paper in place, I would have to almost put them side by side to see where there might be differences because I don't know what would be the added emphasis of this resolution if we already have taken a position.

But, secondly, based on all of the conversation I've heard, this would have to be revised. First of all, the title, I believe, would need to be amended so that it drops, "As Established by U. S. Federal Agencies."

What I'm hearing is: It's important to get the viewpoints and positions of other organizations that are not federal agencies. If those viewpoints are more important, then we need to, you know, drop all references to standards set by federal agencies.

That is also going to change the final, "Now, therefore, be it resolved." So this is going to cause some rather severe changes in this resolution, so I don't know how we can focus on it at this meeting.

MR. MARSHALL: Steve, again?

MR. COLLINS: Okay. I believe the title of the position paper had to do with clean-up standards.

MR. WALTER: Right, with clean-up standards.

MR. COLLINS: Even though, in the setting of the basis for the clean-up standards as some fraction of a more basic limit, I did go in there and talk about 100 milli-rem per year TED E being a basic limit and tried to establish that when I was drafting it.

The other thing is: Senator Dominici right now, in charging GAO and doing some other looking at ISCRS and other -- at the federal agencies work, if this

group could come together with a good position statement that is more all-encompassing -- or use that one -- as well as a resolution, we have an opportunity here to be most effective at getting them into the right influential hands at the right time to maybe push the federal agencies in the direction we want them to go, if this group could agree on where they would like those standards to end up, whether it's 100 milli-rem per year or 25 for air and 25 for liquid.

And right now, from the research work that you're going to be hearing of in San Francisco or Chicago or Washington, D.C., or in Atlanta, it's going to be range of one to ten milli-rem a year for release of solids. And I've mentioned 50 milli-rem to the steering committee, and all their chins dropped when I mentioned it -- I mean there was silence on the phone. But there would have to be quite a bit added to that.

And if you haven't already heard from coming to those stake-holder meetings, stay near an exit. I can't get the NRC to tell me what the bad language is in the letters they've received, but, apparently, since they discussed increased security for the meetings, they've gotten some comments and letters that, apparently, are quite intense.

They've -- people don't want radioactive

material in their babies' spoons and their fillings and other things that are made out of recycled metals. I don't know if they don't remember that everything's radioactive to begin with, but they don't want one atom from a nuclear plant cycle anywhere in it because that's dangerous atoms as compared to those NORM atoms.

(Pause.)

MR. MARSHALL: I've made notes. And I think Richard has made notes, and I hope David has made notes. Is there an action on this resolution at this time?

Arizona, a comment?

MR. GODWIN: I would urge the group not to change the title, but, rather, drop out those independent organizations. We have no authority over the International Commission on Radiation Protection. There's no way we can change any of their particular things. And that's what you would be saying if you changed the title. We have no authority over the National Council and don't have any membership I don't believe on the National Council on Radiation Protection.

So, you know, it's -- these are separate organizations, and I don't think their standards actually exactly dove-tail with each other. I would suggest that we probably should drop those out.

I'd also remind you that this dog's going to

come around and bite you again when you start talking about these mine wastes and oil wastes and all these other things and you start trying to set them. I think the industry would have a good argument for saying that the states ought to get their acts together and set the same standard across the board for all the NORM waste materials that are going to be coming out.

And while that may appear to bring in the conference, since there's no national standard-setting for that particular type of waste, I really would not want to bring the conference into it. I think they ought to do their business separately. And by bringing EPA in, if there's going to be a national standard, EPA would be the one to set it. So you already have that area covered.

So I would urge not bringing the conference in, and deleting these two radiation protection commissions and council. Thank you.

MR. MARSHALL: California?

MR. BAILEY: I guess I'm not following your logic, Aubrey, because we also don't have control over these federal agencies.

(Laughter)

MR. BAILEY: And so I would think that we would want to present to all relevant organizations who are

promulgating limits, if you want to call them that -- and the word used is "limits," and not "regulations" -- we would want to emphasize to all these organizations that, at least, this body feels it's important that they all -- they we all get our acts together, whether it's us as states or the feds as federal agencies or any kind of national advisory groups. And --

MR. GODWIN: I would suggest that the federal agencies in theory, at least, represent us through their elected bosses.

MR. BAILEY: Well --

MR. GODWIN: That could be -- you know, on the other hand, the national council and all may or may not -- we may or may not belong to an organization that supplies someone there. I would think --

MR. BAILEY: But we do --

MR. GODWIN: -- it would be more appropriate to have it as a separate resolution to bring them in and retain this federal identity group as separate and unique. I think the comments that were made relative to naming some -- placing some number as a suggested limit have a lot of validity.

But I really would hate to see taking out the, "Standards as Set by the U. S. Federal Agencies," as the title. I think it would be a mistake to pull that out.

I would also suggest to you that the national council probably makes recommendations, and they might argue -- I don't know for sure, but they might argue that they don't set standards. They -- it may be that they're a standard-setting group. I'm not sure how they view themselves.

But if you do that, then how would you look at the ANSE standards and things like that? What -- some of those could eventually have some numbers in them. I mean when does this end? I mean you stick to a government agency. You have a good group to work with. And then you can stick with the other agencies, and that's another clearly-identified group. And I would suggest two resolutions would be desirable in this particular case.

MR. MARSHALL: Have we beat this up enough without a motion yet?

(Pause.)

MR. MARSHALL: I've got three hands waving, still.

Rhode Island?

MR. DUNDULIS: I think -- just following up on Aubrey's train of thought, the reason that I think you should eliminate the NCRP and the ICRP is: They are -- even though they may be consensus standards, they are just recommendations which have no legal impact until

they are incorporated by reference or otherwise utilized to adopt statutory requirements.

All of the other things that are listed in here are actual statutory requirements which exist. And if the title is, "Exposure Limits as Established by U. S. Federal Agencies," then you should probably limit it to those that have statutory impact, because that's really the source of confusion.

These are all legally-binding limits that are -- that appear to have totally different numbers, whereas, these other two are voluntary standards. Now, they may have scientific basis and maybe the benchmark that all these others should be addressed to, but, if you're talking about inconsistency among federal agencies, then you should limit it -- the motion should at least be limited to those areas which actually are statutory, as opposed to advisory.

And I think that's -- the point Aubrey's trying to make is: You're mixing apples and oranges.

MR. MARSHALL: Massachusetts?

MR. HALLISEY: Yes. I --

Aubrey, I read this a little differently. And I think that there is a possibility that, if you go into the, "Be it resolved," and take out the word, "federal," and just say, "other involved agencies and

organizations," because -- the idea of these other organizations may influence the federal people in coming to their decision, but you are looking at the federal agencies' regulations.

Is that a possibility? It doesn't say that you're resolving that NCRP or ICRP does something.

MR. GODWIN: If that's a question to me, I still think it's better without it. And it --

MR. HALLISEY: Well, I agree it's federal guidance. But why not involve them in the -- all it says -- what this, "Be it resolved," says to do?

MR. GODWIN: I understand. I --

MR. HALLISEY: Yes.

MR. GODWIN: I would recommend that we put a number in that, "Be it resolved." And I would -- again, I would suggest not putting these others in there. I think it's a cleaner resolution to government agencies. I think a clean resolution to them, ICRP, NCRP and the conference, would make a delightful new resolution.

MR. MARSHALL: I've got two sign cards: One in line, and David.

David, do you want to speak?

MR. WALTER: Let me just give you an idea of the flow first of this because the first and second, "Whereas" -- the first, "Whereas," is not

regulatory-based for all of those three situations: EPA, NCRP and ICRP. But it sets a standard of 100 milli-rem. The second one is a standard, which is also 100 milli-rem. Then you start seeing all of the variations on the standards after that.

More than anything else, the reasoning for putting that first, "Whereas," in there is to set a precedent by which you can look at -- and then we can put that in the, "Therefore," and add in 100 milli-rem if we wish, but it sets a precedent to show where the majority of the suggestions and recommendations and so forth are at this point in time.

Now, whether that stays in there or not is really neither here nor there, but it does set the basis. That's the reason for that.

MR. MARSHALL: We'll take the last two comments.

MR. GODWIN: Mr. Chairman, as rebuttal, I would suggest that the FRC guidance is indeed legally binding. That's the guidance that has been approved by the President of the United States that is to be used by other federal agencies in selecting what portions to go under what part of the exposure limits.

So, whereas it's nice to say that it's not a regulation, per se, itself -- indeed, he's correcting

that, but it is a legally-binding requirement from the Federal Radiation Council as approved by the President of the U. S. for federal agencies.

MR. MARSHALL: Joe?

MR. KLINGER: You know, it seems pretty simple to me. This is good background. It flows logically. And then, if you look at the meat of the whole thing, "Now, therefore, be it resolved," and then just change that last word and, instead of, "Radiological release criteria," to, "Standards," you know, I think we're okay.

MR. MARSHALL: Change which part to, "Standards"?

MR. BAILEY: The very last --

MR. KLINGER: Yes. The very last sentence there, "And an identical set of radiological standards for all federal agencies," because that's the meat of it. You're limiting what you're asking them to do to the federal agencies. The other stuff is background, and I think it's important background.

MR. O'KELLEY: Do you want to add that, "Exposure standards," or, "Standards"?

MR. KLINGER: And even the title, I think, we ought to change: "Standardization of Radiation Limits," or -- instead of, "Exposure Limits" -- to say, "Radiation Limits," instead of, "Exposure Limits," on the title, and

then, like I said, on the last sentence.

MR. MARSHALL: Mike, you've been very patient.

MR. BRODERICK: It may be useful to clarify why we're referring to the NCRP and ICRP by saying something like, "Whereas the FRG sets a dose limit of 100 milli-rems to the public and this has been supported by prestigious groups such as the ICRP and NCRP." That might be a way to clarify why those are being brought in, particularly --

VOICE: Yes. That's good.

MR. BRODERICK: -- for those who are critical of EPA's standards.

VOICE: That will work.

MR. MARSHALL: Ed?

MR. FRY: Back on that -- Mel Fry from North Carolina. On that issue, though, wasn't it the other way around, that those international and national bodies set the standard and EPA copied it?

MR. MARSHALL: I'm not sure that David heard that, but I think that's right.

Jim?

MR. McNEES: That last line -- in the last line of -- that, "Now, therefore, it is resolved," on the last line of the page, it might be better if we replaced the word, "Identical," with the word, "Consistent."

MR. WALTER: May I recommend that you table them -- this at this point in time because we know that there are some things that are going to have to be changed in this at this point? I have the disk. I'll just have to find a computer I can use with WordPerfect, and I can make the changes that have been suggested here. I did not hear what was being said, the last thing, but I'm sure I will hear about it.

MR. MARSHALL: Mel commented --

Go ahead and, quickly, reiterate.

MR. FRY: You made the statement -- or somebody did -- that the EPA set it and ICRP and NCRP recognized EPA's action. It was the other way around. ICRP did it, NCRP went along with IRCP, and EPA adopted what the two recommended --

MR. WALTER: Oh.

MR. FRY: -- I believe.

MR. GODWIN: Well, actually, the publication cited came out after FRC got it.

MR. MARSHALL: Roland?

MR. FLETCHER: If a motion is in order, I move that this matter be tabled until the maker has the time to rewrite and represent the motion --

MR. O'KELLEY: Second.

MR. FLETCHER: -- or the resolution.

MR. MARSHALL: There has been a motion and second that this be tabled. I allowed this to go on a little bit because I think we needed to have it now, not tomorrow at five o'clock.

Thank you, David, for hearing all comments.

Is there a vote in favor? All those say aye.

(A chorus of ayes)

MR. MARSHALL: Opposed?

(No response.)

MR. MARSHALL: The same. The motion -- the proposed resolution is tabled. We'll see it tomorrow.

The next item noted is nominations for an OAS chair-elect.

MR. DUNDULIS: A point of order: We haven't done anything with Jake's motion. It was discussed, but it's in abeyance.

MR. JACOBI: I think I had asked that, since I've got a presentation tomorrow on it, to --

MR. MARSHALL: It is simply presented at this time.

(Pause.)

MR. MARSHALL: The nominations for chair-elect. I solicited nominations from all agreement states, and personally talked to Bill Sinclair, who accepted nomination. I also personally talked to Kathy Allen, who

also accepted. At this time, we have Bill Sinclair, Utah, and Kathy Allen, Illinois.

I will clarify that the organization of Agreement States is not -- a not-for-profit organization. We're not incorporated, and we're not so organized that we have by-laws in place. For those new faces and you new to this process: You don't have to be a radiation program director to be an OAS officer. That's why we've got some of the nominations in place as we have.

I also had two other suggested nominees, who are in a position at this time not to accept. I believe -- I'm going to leave them un-named. They were good nominations, as all of you are, and I will simply pass those on to Ed for consideration next year.

Are there any other nominations for chair-elect? I would explain that this is a three-year sentence --

(Laughter)

MR. MARSHALL: -- or more. You might be left in to get it right. Chair-elect becomes Chair, and Chair becomes Chair-past, to provide some -- for some continuity in this group. Ed Bailey, as current Chair-elect, will take office January 1 if he stays in place. And --

(Laughter)

MR. MARSHALL: -- I will become Chair-past if I stay in place. And Chair-elect will join us to guide the group. Activities have included monthly tele-conference with the OAS officers, other states, I think, as they choose to join us and, also, the NRC and OSP staff to talk about stuff.

Another official activity has been the -- I think, now, our third or fourth year -- annual Commission briefing. The Commission briefings had been in the spring of the year. We had scheduling problems through April -- from spring until now. We have the briefing scheduled now for October 20.

And we've also elected to combine a CRPD joint presentation with OAS comments, and, at that time, I'll join Bob Hallisey in Washington, D. C., to present that before the Commission.

Personally, I think -- and I'm just going to offer an idea. I don't think that the fall briefing is a bad idea at all. I think, with the flow of the May conference -- many of us go in and out of our fiscal year July 1 -- this meeting, if it were to become a standard in September or October with a chairman or -- with a Commission briefing within a month or so after, is not a bad flow.

It gives Bob -- and myself, in this case -- the

benefit of 31 plus four others -- the input before we go to that Commission briefing, as opposed to waiting another six months to brief chairmen or -- with Ed briefing chairmen -- the Commission six months from now. I personally think it's not a bad idea for a fall Commission briefing.

Ed?

MR. BAILEY: I think I'm not sure that the time of the -- the calendar time of the Commission briefing is necessarily critical or should be fixed, you know, set in stone. We will have a new chairman coming on board sometime. And I think, even if we've had a briefing as scheduled now, that we should strive to have a Commission briefing within the first two to three months after the chairman comes on board.

I know several states, as a matter of course, have their -- have a meeting with the EPA, the -- whatever she's called, the administrator --

MR. MARSHALL: Yes, the administrator.

MR. BAILEY: -- purposely go to Washington every time there's a change in the administrator of the EPA and make their presence known. And I think that will be important, particularly if he does go through the confirmation process and does become the chairman, because I do not believe he has great deal of familiarity

with the agreement states program. So it would be very helpful to have him briefed early.

MR. MARSHALL: That's a good point.

MR. KLINGER: Did you open this for nominations?

MR. MARSHALL: I think I did, indirectly.

Is there any other -- are there any other nominations for OAS Chair-elect.

(Pause.)

MR. FLETCHER: I'd like the nominations be closed on the afore-mentioned names.

MR. MARSHALL: Is there a second?

VOICE: Second.

MR. MARSHALL: All those in favor say aye.

(A chorus of ayes)

MR. MARSHALL: Opposed?

(No response.)

MR. MARSHALL: We will -- in the draft agenda, it's suggested that we vote tomorrow. We can do that now or later, now that we're closed.

(Pause.)

MR. MARSHALL: Let's hold it for tomorrow.

MR. FLETCHER: Stan?

MR. MARSHALL: We'll let them politic tonight over Ruth's barbecue.

MR. FLETCHER: Stan?

MR. BAILEY: And see -- how good they are at pressing the flesh and addressing the crowd.

(Laughter)

MR. MARSHALL: Roland?

MR. FLETCHER: I wanted to make one follow-up to your comment because I think a fall Commission briefing is a good idea, but I don't think that we should get a mind-set that we can only have one Commission briefing a year, because there are always subjects and states and positions that we may need to elevate.

Unfortunately, it just is so difficult coordinating these things that it makes it seem like we only have one shot. But -- I'd like to, you know, stick to the fall, but I'd like to have open the potential for doing it another time during the year, also.

MR. MARSHALL: I appreciate that comment. I would also like to add to it that we keep our minds open to multiple briefings and we keep NRCs mind open to paying for multiple briefings.

(Laughter)

MR. MARSHALL: Our lodge and per diem and travel is important.

Richard?

MR. RATLIFF: Yes. What I was going to

suggest, too -- what has happened over the, I think, five years that I've been on the executive committee now is that we get together, and the executive determines what to brief.

And I think, since we're meeting now and we're not going to go until October, it would be good to have anybody here who has ideas that are real pressing issues that wants the executive committee to take to the Commission to bring those up, because we're not only going to do the briefing of the Commission, but we're going to brief the new EDO and Deputy EDO.

As -- you got the memo last week. NRC has changed their organization, and they're going to talk about that. So it gives us a chance to do both levels. And so I think it's important that, if there are certain issues that the states want, we need to really get those forward to Stan so we can brief them on what's interesting or important to you and not just the executive committee.

MR. MARSHALL: Roland?

MR. FLETCHER: I wanted to touch on another matter so that we could be thinking about it. This is also the --

(Pause.)

MR. MARSHALL: Go ahead.

MR. FLETCHER: This is also the opportunity for the agreement states to put members of their staff or themselves in the IMPEP teams and on the MRBs. And we are rapidly coming to the end of the year. I have -- I think we all received a schedule of next year. And there are some needs that need to be filled.

There are at least IMPEP team -- new IMPEP team members needed, one of whom needs to have some SS&D experience. We also need to look at bringing in some additional or replacement staffers for the Management Review Board.

One of the reasons it's important to designate the IMPEP team members here is because training is usually scheduled in January. So that's ample time for them to prepare to get that training.

I'm not going to ask for anyone here, but, for tomorrow's meeting, if you have someone in mind, I would appreciate it, you know, being written down: The name, contact, et cetera. And, you know, we'll go from there. And if anybody who's on these teams would like to comment, well, just feel free.

MR. MARSHALL: Thank you.

The last printed item is noted, "Consideration of Secretary-elect." And I've noted myself and Richard to talk on this. I'll start if it's okay.

I mentioned the three-year sentence for Chair-elect, Chair and Past-chair. And Richard and I had a discussion that it might provide for some continuity to consider a Secretary-elect as an assistant secretary the last of the three-year term for, in this case, Richard. Richard is going into his last year as Secretary.

And I think the fourth person -- the fourth OAS officer of Secretary is an important one. And it's just an observation that, as we herky-jerk along with trying to hold, you know, a chair in place for a couple of years, we consider the same thing for Secretary and make it less abrupt. I don't know that there's anything else to say.

MR. RATLIFF: I think it's -- the main thing is that the Secretary position -- this was Wayne Kerr's idea, one of the better ideas, because we -- like we've said earlier today, there's no official by-laws or any organization. But Wayne took it upon himself to keep many of the records together. And so he did the motion, and Tom Hill did a great job of getting together all of the historical records. We have a file of all the motions that have passed.

And the Secretary is a three-year position, and -- three calendar years. And so I know I'm not going to run next time. And so, in the past, it has been --

you know, Tom had been on the executive committee. And I've been on there.

So, you know, it's standard that Ed would have to take it, but, if not, we really need someone who would really have a chance to get involved and know that they're going to get two file-drawers -- large file-drawers full records and they are the keeper of those records.

MR. MARSHALL: This is only brought up for discussion at this time. It's intended only for discussion, if there are any interested volunteers, to let us know by tomorrow's meeting. And we might, you know, vote on the idea or vote on nominations. If no one wants it and no one likes the idea, we can drop it, too.

MR. FRY: Stan, in the context of the idea and then needing to get somebody to serve, there seems to be general agreement that we do this. Why don't we make a motion now to do this and then, at tomorrow's meeting, elect somebody that you've corralled into volunteering?

(Laughter)

MR. FRY: You may have a harder time doing that from before.

MR. MARSHALL: Is there --

MR. FRY: I'd like to make the motion that we create a position during the last year of the Secretary

for the term -- for a position of Secretary-elect.

VOICE: Second.

MR. MARSHALL: I didn't hear the corral part by me. So I -- that's -- I hear the motion and second.

MS. SHULTS: I just have a question. So then would that person have to serve four years?

MR. RATLIFF: Yes.

MR. MARSHALL: Yes.

MR. BAILEY: Well --

MR. MARSHALL: Well, they would be allowed to serve four years; they wouldn't have to.

MS. SHULTS: I'm sorry. Excuse me.

MR. BAILEY: Stan, let's think about that. That's a long time. We might shorten the term to two years with a one-year overlap. That's a good point, because that's like getting married to it or something

MR. FRY: I'd accept that amendment to my motion.

MR. MARSHALL: Is there a second to the amendment to shorten it to a three-year term totally?

VOICE: Second.

MR. MARSHALL: Those in favor of the amendment say aye.

(A chorus of ayes)

MR. MARSHALL: Opposed?

(No response.)

MR. MARSHALL: Now we vote on the original, now-amended motion that the Secretary-elect be for a three-year period. All those in favor?

MR. DUNDULIS: No. That the --

MR. MARSHALL: Excuse me?

MR. DUNDULIS: The Secretary-elect for a three-year period?

MR. MARSHALL: Secretary-elect -- no.

MR. BAILEY: To establish the position --

MR. MARSHALL: That the --

MR. DUNDULIS: To establish the position of Secretary-elect. And --

MR. MARSHALL: And the term of Secretary for two years --

VOICE: Correct.

MR. MARSHALL: -- is now the amended motion.

(Pause.)

MR. MARSHALL: What do you want?

(Laughter)

MS. ALLEN: I want to really confuse things. And I don't know if this is the time or after your vote. But we are not incorporated; we don't really have by-laws or anything.

MR. MARSHALL: Correct.

MS. ALLEN: Some of the stuff that Richard's going to talk about tomorrow has to do with finances and arranging meetings and things like that. So one of the things that I was thinking about is, Why don't we try and become a tax-exempt organization so that we really become an organization, and do the by-laws thing? And then that would make the Secretary a Secretary/Treasurer combination thing.

MR. RATLIFF: Are you saying, Kathy, that you would withdraw from Chair-elect and go for Secretary/Treasurer?

MS. ALLEN: Huh-huh.

(Laughter)

MR. MARSHALL: Let me add -- I'm not going to clarify your comment. I'm going to add to it. Tomorrow's discussion --

MR. DUNDULIS: Point of order: It's discussion not germane to a motion on the floor.

VOICE: Yes.

MR. MARSHALL: Okay. What do you want to do?

MS. ALLEN: Well, unless you change -- well, I guess you could pass -- you could probably vote on the motion to accept the Secretary thing and then evaluate a motion to change it to Secretary/Treasurer as a separate thing.

MR. MARSHALL: I think we're at -- we need to vote on the amended motion, that we have a Secretary-elect position with a two-year term as Secretary.

VOICE: Second.

MR. MARSHALL: All those in favor?

(A chorus of ayes)

MR. MARSHALL: Opposed?

(No response.)

MR. MARSHALL: So be it.

Now, you're still at the mic.

MS. ALLEN: I was just here to answer questions.

MR. MARSHALL: Okay. Thank you.

Richard had a tentative last item that came up.

MR. BAILEY: Can I ask a question?

MR. MARSHALL: Yes, of course.

MR. BAILEY: Are we going to discuss the other suggestion tomorrow? Is that what I'm hearing? I don't -- I'm sort of left -- I don't know where we are on this issue. I mean I think the discussion of incorporation and all of that is maybe more than a one-day discussion, because there's a whole lot of stuff to be done. And I would offer that what we ought to do is have the executive board review this issue and come

back with a recommendation next year.

VOICE: Here, here.

MR. DUNDULIS: So moved.

MS. SHULTS: Second.

MR. MARSHALL: There's a motion and a second to do that.

(Laughter)

MR. MARSHALL: I'm serious. We're all tired here.

MR. RATLIFF: Stan?

MR. MARSHALL: I think we understand it.

MR. RATLIFF: Okay. I'm just -- that was for the person taking the notes.

MR. MARSHALL: All in favor of waiting say aye.

(A chorus of ayes)

MR. MARSHALL: Opposed?

(No response.)

MR. MARSHALL: Okay. Well, I will say that the intent of the item tomorrow is simply to talk about what Richard went through to host this very nice meeting in order to help Ken or anyone that hosts next year and subsequent hosts, because there's some stuff that goes on now the NRC is not paying for it, and there's a lot of work that goes on, even medium and small programs.

Yes, Ken can do this, but it's just an

operational discussion so that we understand and not end up changing locations mid-way through the year. I was not really intending to go after incorporation and all that. We obviously have separated the two, and we'll leave it that way.

Richard?

MR. RATLIFF: What I would like to recommend -- you know, the executive committee will look at this -- but that we assign or get volunteers for a group to look at this in the interim, because I know Kathy has pursued this and Ruth McBurney and our staff has pursued it -- and others with CRCPD -- so that there's a working group that could really look at all the ins and outs and what we would really need to do to come back to the executive committee.

And I think that would work real good where you could get a separate working group looking at this whole issue and what it would take. And I guess we can -- the executive committee can rule on that, but I think that's a good way to go.

Last night, when we had dinner with Greta, one of the things she pointed out was -- because we had some interesting things back and forth, and she never got mad at Ed once. That was pretty good.

(Laughter)

MR. RATLIFF: And -- but she said she really needs our support on items of budget where they've got their budget pending now and they're trying to get some general revenue money that would not be tied to fee base, and that we really need to try to get each of our commissioners or heads of our agency, or how ever we work them, with our inter-governmental policy, to write to our senators and representatives to really support the NRC program for funds that are not based on license fees for the agreement states program, because -- she said the agreement states program, believe it or not, is the most expensive program that's not a licensee or registrant, more than international programs.

And so I think it's one of the things that, if we really are going to be successful -- from the chairmen over the years, we've written to different committees of NRC and very seldom got responses at all. But I think each state, through their senators and representatives, brings this issue forward, we have a much greater chance of doing it.

And that's -- what Greta appealed to us to do is to try and see what we can do. Some states won't even be able to write a letter, I know. Others, though, it may be easier.

But I think, if we can get more of the U. S.

congress folks know what the agreement states program is, because -- quite frankly, Greta said that, in several instances, especially one recently in Tennessee, congress didn't even know that they had authorized agreement states. And they didn't know that other states had the authority to do what NRC did.

And so she really asked that we do this, and I really would make that a challenge to all the states: To try to, within the next few months, get a letter from your head of your agency, or how ever you have to do it -- if it has to go through your governor, or whatever -- to the NRC supporting the agreement states program and directly funding -- that they be funded not out of funds that have to be recovered through fees.

MR. WANGLER: Didn't we have a model letter out a couple of years ago? Didn't we have a model letter out from -- was it from Mike Broderick -- that talked about supporting a vote in congress to fund NRC's budget as proposed?

MR. BRODERICK: I wrote one a couple of years ago. There was a move by the nuclear power industry, of all people. And what I tried to do was tie it into that but, also, get that old dead horse of the NRC-funded training -- bring that into it.

MR. MARSHALL: Roger?

MR. SUPPES: I was wondering about this organization adopting a resolution to be forwarded to congress supporting the NRC, in support of agreement states.

VOICE: [indiscernible]

(Laughter)

MR. MARSHALL: I'll take it on.

Arizona?

MR. GODWIN: I would suggest to you that the most effective letters come from your congress -- come to your congressmen from you. An organization? Yes, it will have some impact, but they can brush it off.

But I know, if you're writing your congressmen or the governor's writing the congressional delegation or you're writing it and it looks like it's coming from the governor -- it doesn't really matter -- it's far more effective than some organization they really haven't heard of and they suspect is probably lobbying on behalf of one of the federal agencies and they're not real sure they want to go with that, any way.

But when ever it comes out of their state capital to them, they'll read it. They might not vote for you, but they'll read it, and it will have more impact than any other kind of letter.

MR. MARSHALL: That point was emphasized last

night at dinner by Cindy Jones and Greta, who said yes, it comes from the congress through the agency and they respond within three days and it's a drop-dead kind of a thing. You do it, and there's no other priority.

MR. O'KELLEY: Stan?

MR. MARSHALL: Pearce?

MR. O'KELLEY: I recommend we support this. We don't want the NRC following FDA's precedent of trying to charge our licensees to support their program. And, you know, if there's anything we can do to help FDA get funding so they don't charge our registrants, that would be wonderful, as well. So you may as well write two, instead of one.

MR. MARSHALL: Are there any other comments on that item?

(Pause.)

MR. MARSHALL: Do I hear a motion to adjourn on time?

MR. WHATLEY: I've got a cuss.

MR. MARSHALL: No?

MR. WHATLEY: This whole end down here has been quiet all day. Okay? It won't take but a second.

MR. O'KELLEY: And we appreciate it.

(Laughter)

MR. WHATLEY: We've got -- Stan, you -- awhile

ago, you used the term -- in talking to Ed, you said -- were speaking of, "If you stay in place." Well, that might not be within our controls. I want to commend you on one of the first things you did today, and that was recognizing some people that are no longer with us. And there are others.

And I think, you know, none of us or none of our programs -- we're not here -- we're here where we are today because somebody went before us and did a good job. And I think it's appropriate at any of our meetings, whatever they are, where we are as a group here -- this may be the last time this group of people here ever gets together as a group.

And I just think it's appropriate to call out the names of folks that are no longer with us. There were several others -- one was very vocal at this meeting last year -- that are no longer here. And I just think it's appropriate that we do that.

So there's a few states that have somebody that's no longer there. I don't. But I -- if you do, you might like to recognize them.

MR. FRY: North Carolina will never be the same.

MR. MARSHALL: Aaron will be missed.

VOICE: [indiscernible] contributed more than

just [indiscernible] itself.

MR. MARSHALL: He'll be missed.

Are there others?

MR. O'KELLEY: I'd like to express my appreciation for the leadership that was shown to me in our program from Hayward Sheely. He was an integral part of this group in the Conference of Radiation Control Program Directors, and we also miss his gentle way of showing us the right way.

(Pause.)

MR. MARSHALL: Is there a motion to adjourn?

MS. ROGERS: I have one thing that's on another topic.

MR. MARSHALL: Please.

MS. ROGERS: If you need a ride, meet us out in front at 6:00. For those of you who are driving, I have maps. And if you have a car, even if you didn't volunteer to drive, please see if you can pick somebody up and take them with you. And, lastly, if you drive, you have to bring those people back, too.

MR. O'KELLEY: Which day?

(Laughter)

MS. ROGERS: Thank you, all.

MR. MARSHALL: I heard a motion and a second. All those in favor to adjourn?

(A chorus of ayes)

MR. MARSHALL: Opposed?

(No response.)

MR. MARSHALL: We'll see you at Ruthie's.

(Whereupon, at 5:00 p.m., the meeting was adjourned, to reconvene at 8:00 a.m. Thursday, September 9, 1999.)