UNITED STATES

NUCLEAR REGULATORY COMMISSION

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MEETING WITH THE ORGANIZATION OF AGREEMENT STATES (OAS) AND THE CONFERENCE OF RADIATION CONTROL PROGRAM DIRECTORS (CRCPD)

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TUESDAY,

APRIL 4, 2017

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ROCKVILLE, MARYLAND

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The Commission met in the Commissioners= Hearing Room at the Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, at 9:59 a.m., Kristine L. Svinicki, Chairman, presiding.

COMMISSION MEMBERS:

KRISTINE L. SVINICKI, Chairman

JEFF BARAN, Commissioner

STEPHEN G. BURNS, Commissioner

ALSO PRESENT:

ANNETTE VIETTI-COOK, Secretary of the Commission

MARGARET DOANE, General Counsel

OAS AND CRCPD LEADERSHIP PRESENT:

DAVID ALLARD, CHP, Director, Bureau of Radiation Protection, Pennsylvania Department of Environmental Protection, CRCPD Chair-Elect

SHERRIE FLAHERTY, MHP, DC, Supervisor, Radioactive Materials Unit, Minnesota Department of Health, OAS Past Chair

WILLIAM IRWIN, SC.D., CHP, Program Chief, Radiological and Toxicological Sciences Program, Vermont Department of Health, CRCPD Past Chair

MATTHEW McKINLEY, Director, Radiation Control Program, Kentucky Department for Public Health, OAS Chair

JARED THOMPSON, Program Manager, Radioactive Materials Program, Arkansas Department of Health, CRCPD Chair

DAVID TURBERVILLE, Assistant Director, Office of Radiation Control, Alabama Department of Public Health, OAS Chair-Elect

P R O C E E D I N G S

CHAIRMAN SVINICKI: Okay, thank you.

Then we will begin our topical session. And I invite the presenters to please join us at the table.

While they are doing that I will again welcome everyone and note that today the Commission will conduct a meeting that we generally try to hold on an annual frequency. I think we're pretty good about holding to that. But it is a meeting with the Organization of Agreement States and the Conference of Radiation Control Program Directors. These are key partner organizations, and the states that are represented are real partners to us in the important work that the agency staff carries out. So, I know we always have a good diversity of topics to discuss. And I always get a lot of good information out of this meeting and our exchange and Q&A back and forth.

Do either of my colleagues have any opening comments?

COMMISSIONER BARAN: No.

CHAIRMAN SVINICKI: Okay, thank you.

Then we will move directly to hear from our panelists who, again, I thank for being here today. I will just briefly give an overview of the panel and then I will recognize the first speaker and ask you to then hand off to each other in the order in which you've agreed to present.

So, this morning we have David Turberville, Assistant Director, Office of Radiation Control of the Alabama Department of Public Health.

We also have Matthew McKinley, Director, Radiation Control Program, Kentucky Department for Public Health.

Oh, I should have mentioned, I'm sorry, is that Mr. Turberville is the OAS chair-elect. Mr. McKinley is the OAS chair.

We also have Sherrie Flaherty, Supervisor, Radioactive Materials Unit, Minnesota Department of Health, who is the OAS past chair.

We are joined also by David Allard, the Director, Bureau of Radiation Protection of the Pennsylvania Department of Environmental Protection, who is the CRCPD chair-elect.

Joining us also is Jared Thompson, who is the Program Manager, Radioactive Materials Program, Arkansas Department of Health, who is the CRCPD chair.

And we're bringing up the final panelist here is Dr. William Irwin, Program Chief, Radiological and Toxicological Sciences Program, Vermont Department of Health, who is the CRCPD past chair.

Thank you all. And I believe we are beginning with Mr. Turberville. Thank you.

MR. TURBERVILLE: Thank you.

Good morning, Chairman Svinicki and Commissioners. Appreciate you having us here today. I just want to take a few minutes today to discuss the Integrated Materials Performance Evaluation Program, or IMPEP.

As you're aware, NRC began implementation of IMPEP back in 1996 to evaluate the agreement states in regional NRC materials programs to assure a consistent level of protection of public health and safety in the use of nuclear materials nationwide. The program has a set of, specific set of common performance indicators that are reviewed and evaluated to determine adequacy for the agreement states. Those indicators include the technical

staffing and training, the status of the Materials Inspection Programs, the technical quality of the inspections program, technical quality of licensing actions, and the technical quality of incidents' navigation activities.

Additional areas are identified as non-common performance indicators, which may also be addressed in the evaluation of an agreement state. They include the compatibility requirements, the sealed source and device evaluation program, low level radioactive waste program, and the uranium recovery program.

The range of possible findings for an agreement state include adequate to protect public health and safety, adequate but needs improvement, or inadequate. And then there are the compatibility requirements where you will either be found compatible or non-compatible with NRC rules and regulations.

Currently, 34 of the 37 agreement states are considered adequate based on their last IMPEP review. The remaining three are considered adequate but needs improvement.

In the category compatibility, we have 33 agreement states that are considered compatible at this time.

The IMPEP team that performed the reviews are made up of NRC and agreement state representatives that are trained in the process. Personally, I've been on both sides of the IMPEP process, both as an IMPEP team member in past reviews of the Oklahoma, California, and Pennsylvania programs, as well as part of the staff for the IMPEP reviews of our own program in Alabama.

Overall the experience, my experience both as an IMPEP team member as well as part of the state being reviewed has been mostly positive. And it's been very educational for me as I've tried to learn from other states to make

our program better.

In 2010, a comprehensive self-assessment of the overall IMPEP program was conducted, with recommendations made at that time. One of the recommendations that I felt was helpful and was a very common sense approach was the idea of making reciprocity inspections more performance-based, and removing from IMPEP the requirement to inspect 20 percent of the reciprocity licensees.

In answer to this recommendation from the self-assessment, SA-101 reviewed the common performance indicator status, and Materials Inspection Program was revised to allow agreement states to have an alternative reciprocity inspection procedure. This was important, especially for Alabama, because some of the states have different reciprocity requirements, and trying to meet that 20 percent requirement was either nearly impossible or created an unnecessary resource burden.

Also I want to point out the recent revision of SA-111, the formal qualifications of IMPEP team members and team leaders which included more detailed training and experience requirements for IMPEP team members and the team leaders. The document not only outlines specific formal training, but also outlines, identifies professional experiences needed.

As the IMPEP program is now over 20 years old, experienced team leaders are now making way for a next group of leaders. The training process outlined in SA-111 appears to focus on succession planning for the program with a mentoring type program. That's what it appeared to me.

At this briefing two years ago, Mike Welling, who at the time was the Chair of OAS, stressed the need for consistency of the reviews with IMPEP.

Currently, a focused self-assessment of IMPEP is being conducted by a working group made up of NRC staff and agreement representatives, agreement state representatives. The objectives of that group are to review recommendations from the 2010 self-assessments, evaluate the program's performance in two indicators, and that would be the technical staffing and training, and the status of the Materials Inspection Program, where they're focusing on consistency and effectiveness, and assess whether the experience level of the team leader or other factors contribute to inconsistent review findings.

This tells me that you in NRC are listening to us and taking our concerns seriously. And for that, we greatly appreciate it. We at OAS look forward to the results of this latest IMPEP. And our hope is that it will be one of the presentations at this year's OAS annual meeting in Memphis.

As we move forward, I believe that all the agreement states want to be found adequate and compatible. The success of any individual agreement state program is largely dependent upon your support at NRC. Through retirements, attrition, and budget cuts, many state programs have to do more with less. And as we try to fill those vacancies that come up, the training we receive through NRC-sponsored courses is an invaluable resource.

Speaking for my state, losing that resource would create a very difficult hardship on our program. And I'm sure my colleagues here would have similar concerns.

We also must rely on an open line of communication. This is where our working relationship with state agreement officers and the NRC staff are important. If there are any changes in NRC policies and procedures which

could affect a program and its status in the IMPEP review, such as the revised training requirements that happened a few years back, or any future decisions such as evaluating the state's response to non-military radium information that was recently referred by NRC, we would greatly appreciate a timely heads up to make sure the information gets to the right people within our program so we can take appropriate actions.

And finally, in the matter of rule development and the compatibility requirements, the agreement states can sometime be overwhelmed by the number of rule packets coming down from NRC. In 2015 alone there were five rule packets that were due for implementation in the agreement states starting in January of next year.

Some of these packets include only minor corrections and clarifications, but they hold the same requirements for implementation as a new or a major revision of a rule. These minor rule packets require the same regulatory process and resource burden to get it through the system and become a final rule in at least some states. It would greatly benefit the states in their allocation of resources to have some mechanism in place to allow for some flexibility in the implementation period, especially for these minor rule changes.

So, in closing I want to say that the agreement states and OAS believe the IMPEP program serves its purpose well. It is a positive example of federal and state partners working together. We at OAS value our partnership in this program.

I want to thank the Commission for allowing the OAS to be an active participant in the program. And I appreciate your time today. Thank you.

CHAIRMAN SVINICKI: Thank you. And I'm sorry to interrupt but I

noticed that your name, I believe, is misspelled in the official scheduling notice of the meeting which caused me to mispronounce it, not just once but twice. So I apologize for that.

I assume that the nameplate that's in front of you, is that the correct spelling?

MR. TURBERVILLE: That is, yes.

CHAIRMAN SVINICKI: Okay, thank you. Well, we'll get that corrected.

MR. TURBERVILLE: You're not the first one to do that.

CHAIRMAN SVINICKI: Okay.

(Laughter.)

CHAIRMAN SVINICKI: I have more than a little bit of familiarity with mispronounced last names, so. It's a good club to be in.

MR. TURBERVILLE: Yes.

CHAIRMAN SVINICKI: Okay. And I believe the next presenter is Matthew McKinley; is that correct?

MR. McKINLEY: Yes.

CHAIRMAN SVINICKI: Thank you. McKinley. Did I pronounce that correctly?

MR. McKINLEY: That is correct, yes.

(Laughter.)

MR. McKINLEY: My topic that I chose to speak on today is the policy statement for the Agreement State Program. I knew it had been around a long time. I didn't realize quite how long when I started researching this.

It actually started back in 2010 which, incidentally, was the year that the

iPad was introduced. So, for a little perspective, it has been in the process for quite a while. It actually started with a rather innocuous-sounding directive from the Commission to add security considerations in the policy for adequacy and compatibility. It was more of an IMPEP update, essentially. And it's blossomed from there.

In 2014, the Commission recognized how much of an impact this set of changes, as it was evolving, was going to impact not only the policy statement for the adequacy and compatibility but also the statement of principles and policy for the Agreement State Program which at the time was a separate policy. So, the decision was made by the Commission to combine, consolidate those two policies into one. And that's what we're working with now since 2014. That has been the scope of the policy statement for the Agreement State Program.

Of note, at the time a comment was made by the OAS basically saying that we think it was a good idea, but that was a decision that should have been discussed among all the partners involved. But having said that, I think the message was received and we've gone forward. It was, in fact, a good idea to do. And I think we would have been very supportive of it, and are very supportive of it

So, the other big issue that came up, and this came to a head in 2014, was the issue of the compatibility Category B. It seemed to be kind of an inflection point for discussion. Compatibility Category A was fairly well established and there wasn't really any controversy there. Category C, again the same thing.

But with Category B, this was another opportunity for NRC rulemaking

to be imposed on states in a more verbatim way. And we, as the states, were interested in trying to minimize that. And there was a lot of semantic conversation surrounding it. But I think at the end the intent, our intent was met in the policy language as it exists right now. And I think, I think that controversy has been laid to rest, or controversy with the semantics issues.

So, without going through the 7-year history of the development of this policy, I thought I would spend a little bit of my time, the rest of my time discussing really the two key components to any of these policies and any of the interactions between the NRC and the agreement states, and that is adequacy and compatibility. From the very beginning that has always been the key elements to our relationship.

And so what I wanted to do -- I'm trying not to read too much -- but I do want to read what the policy language is in its description of Section 274's assessment of our roles and responsibilities with respect to it.

Number one is to establish and maintain agreements with states under Subsection 274(b) that provide for discontinuance by the NRC and assumption by the state of responsibility for administration of a regulatory program for the safe and secure use of agreement material.

Two, to ensure that post-agreement interactions between the NRC and agreement states, agreement state radiation control programs are coordination.

And, three, to ensure agreement states provide adequate protection of public health and safety and maintain programs that are compatible with the NRC's regulatory program.

Obviously, the first statement deals with states that are not yet

agreement states.

The second statement is just a general statement saying that we need to cooperate through our involvement together.

The third statement is really where I think the focus comes down to, you know, what is the relationship? And that is the assessment and maintenance of adequacy and compatibility.

So, about five years ago I was asked by a friend and then board member of OAS to speak at the 2012 OAS board meeting. And the topic was the Agreement State Program and, presumably, the history of the Agreement State Program as I understood it because I am from Kentucky. We were the first agreement state. First state to sign an agreement. And that was the year that we were going to be turning 50 as a program.

And so I was a little bit uncomfortable, we'll say, trying to talk about the history of the Agreement State Program in a room full of people that had written the documents that were my reference material. So I went in a little bit different direction and I pulled some old articles, law review articles that were written by people in the early -- late '50s and early '60s that really discussed the basis and the foundation of the Agreement State Program.

And it was fairly interesting to take that approach. And what I found out was it can kind of be summarized really in the following analogy or series of events.

In World War II era all of the materials were controlled by the military, as it should have been based on what they were trying to do. After the war was over there was an Atomic Energy Act of 1946 which took jurisdiction from the military, not of everything but of a lot of things, and placed it in civilian

control, civilian government control.

In 1954 the next step was taken where the private sector was able to come in and be a part of the process. But, again, the Federal Government maintained jurisdiction over a lot of the materials.

And then the next sequential step was to have the Federal Government actually discontinue its regulation and pass it to the states. And when you look back at the documents it really was a constitutional question that as the X-ray program had come up and always been under state jurisdiction, materials would have been, had it not been for the Manhattan Project and all of the military applications.

So, so that was the beginning. But there was also a concern that it would stymie industry if there was, you know, 51 plus or minus, you know, different programs out there, different policies that had to be followed. So the real problem addressed by Section 274 was how do we actually shift this control, this jurisdiction? And again it came down to adequacy and compatibility. Clearly, states needed to be adequate to protect public health and safety. And they also needed to be compatible so that there was one continuous program throughout the country so that industry could continue to thrive and develop.

So, so on those issues -- and this is not meant to be any kind of a comment on the policy. I think the policy is very well written. -- just maybe raising a few questions, points for discussion.

First is that adequacy has been an evolving concept. The policy says that in order to be adequate to protect public health and safety, the best way to ensure that is to timely adopt federal rulemaking, which makes perfect sense.

That ensures that you're compatible. It also ensures that you're adequate.

But if you look at what was considered to be adequate, a broader objective interpretation of adequacy in 1962 was a little bit different. There was no security requirements. There were far fewer health and safety requirements on the books. And so as the process, as the industry and the regulatory community evolved, so does the objective criteria for adequacy.

So, I think it's been stated before on several occasions here already this morning that agreement states typically have more to their program than just the materials program. And, of course, those issues are not covered under adequacy, or compatibility for that matter.

So just again, food for thought on adequacy, I think that we're -- there's no issues there but I just wanted to make the point that adequacy is one of those concepts that's very difficult to define and is continually changing.

On compatibility, going back into the history compatibility was obviously a big part of it, and reciprocity was spelled out specifically in each state's agreement. But I have always considered compatibility to be a little more than just making sure that our regulations are compatible. I believe that compatibility, personally believe that compatibility is more along the lines of having a compatible program, which means training and enforcement actions and other aspects of the program that are not necessarily covered specifically under the regulations. So, again, just more, more to consider.

But as it stands, the agreement state policy that we're discussing is, it's purpose is to bring around and define the relationship that we have between the states and the NRC. And in the big picture scheme it is certainly good at ensuring that all the agreement states will remain compatible or have a

pathway to compatibility while allowing us the flexibility as regulatory agencies to interact on a closer level with our licensees.

The relationship that we have clearly is unique. And we should all feel fairly fortunate to be a part of it. And I think, again speaking for myself, and I'm certain that most people would agree, we are -- we understand how fortunate we are to be in this kind of a relationship with the Federal Government and very much appreciate it. Thank you.

CHAIRMAN SVINICKI: Thank you very much.

Dr. Flaherty.

MS. FLAHERTY: Thank you. Chairman Svinicki and Commissioners, thank you for the opportunity to be here again. This is my third and final time with you. I'm happy to be here today representing the Organization of Agreement States and discussing the topic of Category 3 sources and accountability.

Those of us regulating and using radioactive material are quite familiar with the most recent Government Accountability Office's audit of the NRC's and the agreement states' licensing programs. During this audit, and using a false company, the GAO was able to obtain a radioactive materials license for well logging sources. They altered that license and placed an order that would have allowed them to obtain quantities of material that were greater than Category 2.

I think it's important to note that two of the three attempts that the GAO made have failed. And their success in obtaining a license appears to be related more to a failure in following procedure rather than a gap in the current system.

As a result of the audit, the GAO had made three recommendations. First was to add Category 3 sources to the National Source Tracking System, or NSTS.

Second was to require transfers of Category 3 quantities confirm the validity of a license with the regulating authority or using the NRC's License Verification System, or LVS.

And then the third was to enhance the pre-licensing guidance requirements for Category 3.

It's obvious that the NRC has taken these requirements quite seriously. And working groups were immediately formed to address these recommendations. And the OAS appreciates the opportunity to have members serving on these working groups as we continue as part of the National Materials Program to ensure public health and safety and security associated with the use of these sources.

The working groups are continuing their efforts in offering recommendations to the Commission. And there has been much outreach to manufacturers, licensees, and agreement states for input.

From the OAS perspective let me address the two GAO recommendations related to the addition of Category 3 sources and to NSTS, and then a possibility of requiring licensees to use LVS or the regulating agencies for license verification prior to transferring Category 3 sources.

So, first, looking at the NSTS, OAS does not believe that there is a need to include Category 3 sources into NSTS. There does not really appear to be any supporting evidence that the current regulatory practices are inadequate for Category 3 source security. Inspectors are regularly checking these

sources and the licensees' inventories as they're out on their routine inspections.

The additional burden to licensees and agreement statements would add very little to the safety and security for these sources, one example being the medical licensees using high dose rate after loaders and the manufacturers and distributors of these sources. We feel that they would be particularly burdened by such a requirement.

Since these sources are changed at approximately 3-month intervals and between well-known entities, there seems to be unnecessary impediment with very little security gain.

Additionally, if NSTS is at Category 3 levels, industrial radiographers might be burdened with additional shipment tracking requirements for their returns. At this time, radiographers are not subject to the high level tracking requirements for return shipments or transfers typically, because when they ship these sources they decayed below the Category 2 levels. So if the required tracking system goes to Category 3 levels, the licensees will now have to return their transfer -- track their returning transfer shipments to a much lower level. And, again, with another burden, with questionable levels of benefit.

And then regarding the license verification system, one of the other considerations for Category 3 sources is requiring license verification beyond the current methods to be equivalent to those in Part 37. This would require transfers to verify a license with the regulating authority or through the license -- or through the NRC's License Verification System prior to each transfer.

License verification is important for public health and safety. And this has always been a requirement at some level. OAS does not believe that

there is evidence to suggest that the current system for license verification for Category 3 is inadequate in protecting public health and safety. We believe that increasing level verification might result in unnecessary delays of source transfers.

We'd like to see the NRC perform a cost\benefit analysis prior to making such a regulatory change to license verification for Category 3 sources.

Having all the licenses and licensees use LVS prior to transferring material seems a lofty and worthy goal. We understand this would be a very large technological undertaking and take a lot of coordination with the state agencies. At some point this might be very valuable. But without additional evidence to the threat and the potential impact to health and safety surrounding these sources, OAS believes that the current process is adequate.

One additional comment regarding the potentially adding NSTS and LVS from a state perspective for Category 3 sources. States would look at this as additional workload to the state programs, and it might be difficult for the states to bear. As you are aware, staffing resources are often a limiting factor for agreement state programs. And as Matt has mentioned that most of us have additional requirements beyond the Agreement State Program, changes in our staff levels sometimes it's difficult to get those positions filled.

And many of our programs struggle in maintaining adequate levels of trained and qualified staff, especially states with a smaller staff. Adding these regulatory requirements for Category 3 sources might have a negative impact on some of the states and their overall performance.

I thank you for the opportunity to speak and your time today. And I will turn it over to Mr. Allard.

MR. ALLARD: Madam Chair, Commissioners, it's always a pleasure and honor. Just before I get started, my theme today is radiation protection standards. I just want to express my mutual condolences to the Commission; we recently lost our good friend and colleague Frank Costello, member of ACMUI, a good man.

I had a few slides. Oh, right. Good. Okay, next slide, please. That's only the disclaimer for the lawyers.

(Laughter.)

CHAIRMAN SVINICKI: Be careful now. On this side, I'm on this side of the table.

MR. ALLARD: I know, I know. May be disclaimer by intimidation. It's a standard slide.

(Laughter.)

MR. ALLARD: So, the NCRP report 160 is I think a good illustration of what the states, in addition to the Agreement State Program, with material licensing, what the states have to deal with is for sources of radiation exposure that we deal with. Obviously, we can't do anything with the cosmic rays and natural background, but we're often dealing with huge issues with radon and X-ray.

The sources of exposure are numerous. And that's one of the things I wanted to talk about, try to standardize the approach to radiation protection standards.

Next slide, please.

This is a slide I kind of brought in from an open meeting I attended a number of years ago. The radiation protection system obviously has lots of

experience with biological effects. Developed these standards through the years from these observed effects and animal models and such. Obviously our goal is to protect workers, the public, the environment from the detrimental effects or potential detrimental effects of radiation.

Have these very sensitive instruments. And we have these feedback loops. Clearly we've got on the left-hand side here, the societal and political influences to our decision making. Because we always have to weigh the balance, the risks, societal benefit, from our radiation protection standards. And, of course, the cost.

So this is today, as has been said, we obviously have all these constraints, and now in these times of fiscal constraints with Federal Government and state government.

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This is a quote. Lauri Taylor some of you may know. Lauri was the founding father of the NCRP. Goes back to the '20s with the ICRP setting international standards for X-ray and radium. And I thought this quote was a -- I saw this a few years ago and I thought it was a great, great quote. "Radiation protection is not only a matter of science. It is a problem of philosophy, morality and utmost wisdom." And I just thought that really captures a lot of the things we have to deal with over the years.

Next slide.

So our radiation protection standards as they've evolved, the early standards on radium and X-rays, they sort of came together in the '50s. We've had ICRP Report No. 2, circa 1960. Then I got in the field in the mid-'70s. ICRP 2630 came into line. At that point President Reagan, actually I think it

was an executive order, instructed all the federal agencies to update their standards. We were working to ICRP 2 type standards.

Then along the '90s we had ICRP 60. And now, more recently, about 2005-2007, ICRP 103 was developed which updated a lot of the weighting factors tissue, radiation rating factors.

So we have these evolving standards from early simple models, ICRP 2, one-compartment type of models, to these multi-compartment models. And, again, looking at the science over the years and developing these new standards. Clearly the ICRP has developed a, I think, a very good system here with justification, optimization, ALARA here in the states, and limitation, dose limitation.

And the three types of exposure scenarios: existing conditions; planed scenarios, material licensing for example; and emergencies. This is where in the states we have to deal with all these types of scenarios

Next slide.

So, as you all know, the regulatory framework here since the end of the Federal Radiation Council in the '60s when the EPA took over these goals, and again, in the mid-'80s President Reagan instructed all the federal agencies to update their standards. Nuclear Regulatory Commission did that. In 1991 we've got the ICRP 2630, codified in the new 10 CFR Part 20.

DOE also through their 10 CFR Part 85 also codified those, those new standards. However, some of the agencies -- well, let me just skip ahead -- DOT always in line, tries to line up with the IAEA international standards for harmony in transportation. And, of course, the states tier off the NRC's regulations.

But some of the agencies such as OSHA did not. And, in fact, even NRC Part 50, I think Appendix I, was back, still back to ICRP 2.

So we have some disconnects.

Next slide.

So, here in the states we've got, we've got NRC standards for external exposure. We've got OSHA type standards. We've got ICRP recommendations that are out there.

It was very helpful with the movement that NRC was going to be in the lead on updating Part 20. And of course, again, with fiscal constraints you folks have had to back off on that at this point in time.

Next slide.

Another illustration would be in the radon, occupational radon world with NRC at 30 picocuries per liter for workers with source material, whereas OSHA is at 100 picocuries per liter.

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The other more recent, I think it's Commentary 26, the Commission's asked NCRP to look at this. We have a new lens of the eye dose limit. So NCRP is now recommending dropping the lens of the eye dose limit from 15 rem to 5 rem. So we have another sort of confounder in here with radiation protection standards.

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So just to keep us on time here and sort of wrap this up. So, I'm glad to see the NRC going to NCRP requesting these reviews of these various issues. I think we have a mechanism with the ISCORS, the Interagency Standing Committee on Radiation Standards, to sort of look at these and

review these. I'm hopeful that at some time we will see all of these standards sort of normalized for radiation protection of workers, the public and such.

And, again, I think the NCRP and the INSCORS is the mechanism. And I hope that at some point in the future the NRC will find the time and the resources to get back to Part 20 and looking at that. And the rest of the agencies also catch up with the radiation protection standards.

Thank you.

CHAIRMAN SVINICKI: Thank you.

Mr. Thompson.

MR. THOMPSON: Thank you, Chairman Svinicki and fellow Commissioners. I want to take the opportunity to talk with you all briefly about 10 CFR Part 61, the final rule.

Most, if not all, my comments were from comment letters provided by CRCPD during the open comment period. So a lot of this may not be fresh new news of what you'll be hearing.

These comments were prepared by the E5 Committee on Radioactive Waste Management. They did a very good job in reviewing and looking at what particular areas of concern for the sited states.

The CRCPD supports the proposal to set the regulatory compliance period at 1,000 years because it is a reasonable, practical, and achievable approach for short-lived and most long-lived nuclides and is consistent with the UMCRTA timelines.

We understand there is a balancing act between managing uncertainties over long periods of time, particularly 10,000 to 50,000 years, and that there's concern over long-lived inventories, including in-growth. The sited states

have completed 1,000-year or more performance assessments for regulatory compliance. Compliance period for sites accepting significant qualities -- quantities of long-lived material with in-growth nuclides should have two components, even if the future component has significant discussion on those uncertainties.

At least two of the sited, at least two of the existing sited states will not receive significant quantities of depleted uranium and, therefore, will not have issue with the in-growth of the dollar products. Because the compliance period defines the time period for a site to meet performance objectives, 1,000 years is adequate for short-lived nuclides. However, if a site were to accept depleted uranium, a much longer compliance period is necessary.

The CRCPD board continues to believe the states should be given flexibility whenever possible within the requirements of this regulation based on site-specific conditions. A Category B for all the changes in Part 61 seemed to create an unnecessary reach, even for consistency. Agreement states can accept Category B for the definitions and dose limits, but it's difficult to understand Category B for all parts of 61.

Flexibility for a site-specific performance assessment to set Class A, B, and C waste concentration limits is being proposed. And it appears that it will work. These Class A, B, and C limits will be very dependent on the site characteristics.

A Category C would allow flexibility to meet site-specific program needs and any unique critical regulatory situations and site conditions. NRC and the agreement states, especially the sited states, should collaborate to determine an appropriate compatibility designation for some of the new sections of the

final Part 61.

In conclusion, I appreciate the opportunity to discuss aspects of the final Part 61. It is acknowledged that the final rule is being reviewed by the Commission and approval is pending. There has been improvements made in this final rule. And this will only prove to be beneficial to the sited states and the impacted regulatory community. The sited states have the low level radioactive waste operation experience. And NRC has made it possible to bring the low level radioactive waste policy into the risk-informed, performance-based approach.

The states desire to continue to work collaboratively with the NRC on these low level waste issues. Thank you. Bill Irwin.

MR. IRWIN: Thank you.

Thank you, Chairman Svinicki, Commissioner Burns, Commissioner Baran for this opportunity to speak with you again for the Conference of Radiation Control Program Directors.

In this time of transition from one administration to another, and with renewed efforts of our Congress to debate federal programs and decide funding priorities, the CRCPD wants to be heard loudly and clearly today: do not diminish investments in efforts that improve the quality of skills and knowledge required of the people who administer the National Materials Program.

Of all the investments that could be made, investments in training the people entrusted with inspecting and licensing the use of radioactive materials and ionizing radiation are the last ones that should be made and considered for cuts -- sorry, should be considered for cuts. The CRCPD believes instead

that now is the time for more investment.

We further recommend that more investment in training as part of professional development is needed and from all of the partners in radiation protection and radioactive materials security.

I consider the NRC exemplary in its current investment levels and successful implementation of highly-effective training content. A collective increased investment in the skills and knowledge of radiation protection professionals is needed now because technological advancements in medicine and other industries are occurring at an accelerating pace. Increases in investment are needed, too, because there are very few means by which people can learn what is needed to administer the National Materials Program.

It's not just nuclear physics, radiological instrumentation, internal and external dosimetry, and biological effects that must be taught more broadly and more often -- and it's not taught very many places -- it's also training on how government works, how we can effectively work with people to improve conditions where improvements are needed, and how licensing and inspection can be done effectively without stifling medical treatment, intellectual discovery, and technological advancement.

Today is a great opportunity to make these comments. I'm here before the U.S. Nuclear Regulatory Commission in this collection of men and women who have provided the radiation protection community with what I think is a nearly perfect model of how radiation protection training should be done.

The key components are subject matter experts who develop the lessons and teach the students with undeniable authority; classroom and field experiences that immediately transfer to the real world where very hard-

working people are doing brilliant things every day; funding, so every jurisdiction in the United States can send their students, and so every place where people use radioactive materials the verification of safety and security is done consistently.

Where expectations for training are clear to students, and instructor verification and expectations are met is reliable.

More recently, periodic webinars to reinforce fundamentals and discuss lessons learned. And especially most recently, making online study versions of the health physics fundamental courses open to all radiation protection professionals in our jurisdictions.

I have the good fortune of delivering this message today with very recent, very relevant experience. As you know, Vermont is submitting its draft application to become an agreement state in the next few months. To assume this role we need skilled and knowledgeable people to administer the responsibilities of the agreement. Like all states, we've had some difficulty finding trained people to do the job early after hire. Those with the best experience and knowledge are often attracted to much higher-paying jobs, or they are reaching the end of their careers and retiring.

There are also many bright young people, some fresh out of college, but they've never worked with radiation, never studied physics, have limited math and engineering skills, and are naive when it comes to the ways of government.

I'm very proud to testify here today from my own experience in classes, and as well from the reports of my staff who have taken even more courses than I, that the NRC Agreement States Training Program ideally meets the needs of the people we need to attract to our employment vacancies, very often

young scientists, with little or no radiation knowledge of experience.

I firmly believe that were it not for the agreement, the NRC Agreement State Training Program, Vermont would not be applying to become an agreement state. The existence of the NRC Agreement State Training Program, especially as our people return better prepared, is a great comfort to my management as well.

Now again, my primary point is that we need to increase our investments in training our staff, not reduce them. And that all partners in radiation protection engage in this effort more diligently than ever before.

Again, I applaud the NRC for the recent developments -- webinars for continuing education; online self-study of the health physics fundamentals -- but our whole radiation protection community must work together to find ways to leverage our different strengths as the NRC has. One area for focus is the continuing education element for our professionals in the National Materials Program. This is vital not only to maintaining our skills and knowledge, but to use it as professional development for those we initially trained.

The CRCPD can partner with the NRC, the Food and Drug Administration, the Environmental Protection Agency, and the Department of Energy to collectively create meaningful, professional development opportunities. And as an example, we would appreciate more opportunities to send our well-trained people to more elective courses in environmental sampling, decommissioning and emergency response within the NRC Agreement State Training. Doing that, they make it more likely for us to sustain our staffing, maintain those professionals we've invested so much in already.

As another example, we could partner on creating case studies from state and NRC experience to incorporate in the current and additional continuing training. Not only are the experiences shared, but the responsibilities and cost of developing the case studies and even implementing training in them could be shared.

In the end this means it reinforces state and federal cooperation, which is vital. And concurrent with the joint development of continuing education content, I believe it's likely that a lot of enrichment will occur in the professional lives of those state and federal people working together on this project.

Thank you very much for your time.

CHAIRMAN SVINICKI: Thank you. And as I forecast at my opening remarks, you all have teed up a lot of really interesting discussion points. So, in that vein we will begin the question and answer period with Commissioner Burns.

COMMISSIONER BURNS: Thank you, Chairman. And again welcome here today.

Thanks, Dave, for acknowledging Frank Costello's recent passing. He was one of those guys in my early days, which is some time ago, under the Constitution not the Articles of Confederation, but that I learned not only the Agreement State Program but learned about materials, as a young lawyer learning materials. This was up in Region 1. And as I've said on some other occasions, I think the materials licensees in many ways are always more interesting, particularly in the oversight and enforcement. But Frank was one of those guys who sort of brought me along.

MR. ALLARD: And he was key when we became --

COMMISSIONER BURNS: Yes.

MR. ALLARD: -- an agreement state in March 2008.

COMMISSIONER BURNS: Yes.

MR. ALLARD: Frank retired from NRC and he came on board with us --

COMMISSIONER BURNS: Yes.

MR. ALLARD: -- about 10 years ago. I met Frank 35 years ago, and he inspected me. Friends and colleagues ever since.

COMMISSIONER BURNS: Well, thanks for that acknowledgment.

And thanks, Mr. McKinley, for giving this sort of overview and reminding us of sort of the history of the program. This really is -- you know, I do appreciate the work of the agreement state partners to ensure the health and safety of the public and the complementary, not only compatible, but complementary programs that we have both as a federal agency but as a state agency in this idea.

And one other sort of memory down Memory Lane, I used to work for Admiral Ken Carr, who was a commissioner and chairman. He was proudly a native of Kentucky and he was very proud that Kentucky was the first of the -- first agreement state.

And you acknowledged over the course of sort of the history of the development, and I think very aptly you sort of pointed out some of the interesting things in terms of how, basically how the regulation of nuclear materials to the extent it was associated with military programs and then grew up that way where you had, earlier between things like X-ray or radium, other naturally-occurring materials, developed a state regulation.

A couple things, just sort of reflections on what you were saying, is that a couple events after in terms of the development of the Agreement State Program, I think of the really 2000's, and basically after 9/11, and I remember there were some hard spots between NRC, I think, and the agreement states over some of the orders issued with respect to security.

At the same I remember, you know, right about 9/11, that IAEA had just adopted its code of conduct, which was really focused at that time on lost sources or abandoned sources, particularly in the former Soviet Union. But 9/11 came, sort of brought us back to the circle of things we probably weren't thinking about or didn't think as much of a threat in 1962 or earlier, even after that in terms of the program. But how we sort of worked through, worked through those things.

So, you know, it's an interesting history. And, again, I think, as all of you have mentioned, I think it's an important engagement that we have something we all I think need to be advocates for in terms of the continued safety and safety of the American people in the use, to allow the safe use in various types of fields of radioactive sources.

As I think particularly, you know, Bill Irwin noted in his presentation, one of the things that has been an ongoing issue for a number of years, certainly since I came back to the NRC, is this question about, you know, funding, and not only, you know, for us as the Federal Government but also for you in the states and the challenges, I think one of the good things has been sort of the creativity, particularly in the training programs. Because I've heard that time and time again when I've been either here in these meetings or some of your, you know, the national meetings, that the importance of that training as sort of

a base, you know, a foundation on which to build our programs is extremely important.

And I know that's something I've tried to support and I will continue to advocate for. Because we really do get, I think, leverage on it. And I know we've been more creative in, you know, like everywhere in terms of education, in terms of web-based or sort of online learning as well as, you know, face-to-face, you know, things we can do. But it's one way of maybe making a little more, if you will, economic, if that's the right word, but it's something I think we continue to need to pay attention to.

A couple, just maybe a couple questions. Mr. Turberville, in terms of your remarks, I think you noted a couple areas. Perhaps one area for us to focus on as an agency is some of our communications. And I put this not just to you but to anyone. If there are areas where you think perhaps we could do a little bit better on the communications?

And sometimes it sounded to me like from your presentation, it might be sort of the timing or the length of time you get sort of notice from us that we got some bright idea or that we're coming down the pike with some new issue.

MR. TURBERVILLE: And in reference to that, that is some of the issues I believe, and others can speak of that, but some of it is -- is timing in itself, in that for our situation, we had a -- the -- the letters, the RCPD letters that come down sometimes don't get to the right individuals. They get to our director, and they never get down, so that's really on us, but it would be nice for when your -- the State Agreement Officers, if they know that that is something that we need to know, it would be great to pass it on down to the inspection director or something of that nature.

We had -- our issue was more of our director was retiring, and he was more worried about his retirement papers than actually getting information -- but I shouldn't say that.

(Laughter.)

COMMISSIONER BURNS: Yes. I know we still get letters sometimes, you know, they're like from three chairman ago. I think I --

(Laughter.)

COMMISSIONER BURNS: -- you know, between Chairman Svinicki and me, I can understand that, but we were still getting -- I think I was getting even last year something to Chairman Macfarlane, you know, who had been gone almost two years, so yeah, I think you're right.

It is sometimes -- you know, the official letter has to go to the top, you know, goes to the senior-most official, but, you know, the people who are on the ground really, you know, okay, that is helpful.

MR. TURBERVILLE: And -- and that's a two-way --

COMMISSIONER BURNS: Okay.

MR. TURBERVILLE: -- communication. That is where we need to also be more proactive in making sure that, especially at the OAS meetings, we need to have some avenue there and -- and to talk to the NRC staff at that --

COMMISSIONER BURNS: Oh --

MR. TURBERVILLE: -- time.

COMMISSIONER BURNS: -- yes, okay. Good. Sherrie, you talked a bit on the Category 3, the issues regarding Category 3 and sort of the policy issue back and forth about inclusion in, you know, the National -- National

Source Tracking System or in the license verification system, and I know that is -- that is sort of ongoing. Have you, or in terms of your state or any others, have -- have looked at this in terms of the information on sort of the economic impact?

I know -- I appreciate the concern that depending on where you go on this, this could have in terms of another impact on limited state resources, but do you know -- any of you know of any specifics people have looked at?

MS. FLAHERTY: We have not done -- in my state in particular, we have not done the -- the resource calculation. It -- it is going to really depend on how -- how much -- how detailed we're going to be asked to put things into NSTS. Is it everything into --

COMMISSIONER BURNS: Yes.

MS. FLAHERTY: -- LVS? Is it everything? Are we --

COMMISSIONER BURNS: Okay.

MS. FLAHERTY: -- going to look at a graduated approach? And, you know, that is tens of thousands of sources between all of our states, and it -- it is going to depend on what -- how -- how deeply we're going to go. I don't know if you guys have any other -- if you guys have looked at the impact to your states in particular or not. Dave, you seem to --

MR. ALLARD: Yes, we I think in our letter, our formal letter that came in, we figured for the National Source Tracking System it was going to be at least an FTE --

MS. FLAHERTY: Yes.

MR. ALLARD: -- for just Pennsylvania.

MS. FLAHERTY: And I think we were looking maybe at a half-time.

MR. ALLARD: Yes.

COMMISSIONER BURNS: Yes, okay. Okay. All right. Thanks. And I know that issue will -- we will continue to be looking at related to number of issues on the -- on the, you know, source security, and our follow-up in the GAO report, and some other initiatives that we have.

In terms of the -- I know we're looking at the -- in terms of the IMPEP guidance or guidance on conducting the IMPEP, but are there any particular issues you think maybe are, you know, sort of high -- you know, high impact or might be high value in terms of potential improvements to the IMPEP program? Anything particular?

MR. TURBERVILLE: Well, when I was researching for my speech --

COMMISSIONER BURNS: Yes.

MR. TURBERVILLE: -- the things that I was thinking about was making sure that we have consistency, and everything that was in that charter that is going on now, self-assessment, was pretty much answering everything that I said, so I said, well, I am -- I am very --

COMMISSIONER BURNS: Yes.

MR. TURBERVILLE: -- pleased, and as I say, I wanted -- and we -- and not only that, we have good representation from the Agreement States with the working group.

COMMISSIONER BURNS: Yes.

MR. TURBERVILLE: So I will just say when I -- I have been doing this for 27 years. A lot of that was as an inspector. And when the IMPEP program was implemented in '96, we all had the issue of is this going to be consistently evaluated regional as well as Agreement States? The same concerns were

back there in 1996 and --

COMMISSIONER BURNS: Yes.

MR. TURBERVILLE: -- '95 when this was being talked about, and -- and as I say, Mike Welling discussed it a few years back, so -- but as I say, you're addressing it, that is was my biggest concern as far as over the years, and I think some -- some states have expressed the same concerns for that, but if -- if -- I don't know what else you can do other than what you're doing.

COMMISSIONER BURNS: Okay. Great. Dave?

MR. ALLARD: I just want to say I have only had two and did a couple period meetings, but we -- we look at it as a real positive. I mean, we have -- and having had, you know, eight years of DOE audit experience in the '90s before I came to the commonwealth, I always, you know, I think look at these things as a positive thing. No program is perfect, so, you know, we always benefit from -- from things like that.

COMMISSIONER BURNS: Great. Thank you. Thank you.

CHAIRMAN SVINICKI: All right. Again, thank you each for your presentation, and it was very thought-provoking. To some of the presentations I maybe have not so much a question as a comment or an observation that I would offer. I was trying to decide whether to go in reverse order or what. I don't know. I am -- maybe I will start at the left and then go down.

So Mr. Turberville, I appreciate that you did touch upon the comment of implementation time frames. This has been a pretty consistent interest of mine, and in looking -- in preparation for the meeting as I do each time -- at the status information that the NRC staff provides about the state regulations being

put in place, it is a mixed picture. I think, you know, some states, the legislature meets on a certain schedule or meets less frequently, and so I look across this and state that there's good and substantive reasons why some states, it takes them a little bit longer.

I would express that, as in the process of developing requirements, it is my observation that NRC is always very interested in input on implementation time frames. I think we exhibit a relatively good flexibility there. One thing that makes almost all of these issues complex, though, is that we are trying to strike that really good balance, and some states, it is a lot more straightforward. So do you want to deprive earlier implementation for the states that traditionally have more hoops to jump through in order to have a state regulation?

And I think we try to navigate that as best we can, but I just -- I would encourage either collectively from your organizations or as individuals wanting to supplement the OAS or CRCPD input, letting us know that, you know, for my state, this is you just missed a cycle of our legislature, and it is -- you know, it is unlikely that we could come into compliance, so I encourage the feedback. I think we always have to balance different input, but I think -- I think we have real sensitivity to that, that that is something really outside of your control to a great extent.

Mr. McKinley, I appreciate again the background. I would note that the former NRC historian, Sam Walker, has a series of written histories of the NRC that I found very informative. I don't know how available they are. They are available to NRC staff who are newer from the library, but they do touch upon the evolution of -- of some of these concepts that manifested in the Atomic Energy Act, and I find it fascinating. I enjoy history. But I found what you

presented very consistent with having studied some of the documentation of that history.

But the one thing on policy statements, whether we have two or one, the benefit -- one of the chief benefits of them is creating a common understanding, and in cases where it touches on something where there are multiple participants such as the Agreement State program, I think at least beginning with an articulation at a very high level of what we can expect from each other I think is very helpful. I know that we'll always be looking to have a better articulation of what it is that we expect, but I do think that policy statements as related to the Agreement State program are particularly beneficial in that aspect, so I appreciate your -- I don't know how we got disconnected from you on combining them.

I am willing to own some portion of that and say that maybe we viewed that as more of an internal matter, and that we would engage externally on the content, so that could be that we just didn't maybe realize that the whole notion of combining two policy statements is something we could have reached out on, but I appreciate your honest feedback, and, you know, we can take that in and learn from that. That is very helpful.

Sherrie, on the GAO sting and the history, you mentioned something that is very central to me, and I know we continue to look and re-look at this issue, but having worked for lawmakers in the Congress for 12 years and then coming here, I always struggle when there is a -- a basis articulated for modifying something that is at its heart a failure to comply with what is already required. I used to joke with congressional staff colleagues when there was an amendment or something to a federal law, and I would say the way to get

compliance with this law is not to pass another law that says well, I meant it, you know, when I said it in the initial law.

So where some aspects of the stings over the course of years have been writing a combination for a safe on the door of a doorjamb or something like that, so clearly prohibited already that I -- I don't know that an accretion of additional requirements -- fundamentally, to me, that is a programmatic failure, perhaps. It is perhaps a failure of inspection and enforcement, and we need to look at all of those things when these things happen because something clearly went wrong. But I don't know that it -- it -- lacking more, to me, it is not enough to indicate that the fundamental system in place is inadequate, and often, it would indicate other problems that you should go look for because they are important problems.

So I kind of hit on -- you can see I have a lot of energy around that topic, but it's just that we need to direct our limited resources towards fixing the right problems, so I appreciate your very pragmatic focus on that.

And then Mr. Allard, I appreciate the Lauriston Taylor quote. I was not familiar with that gentleman, but it seems to me also -- also in issues of health physics and radiation protection, which is not my area of expertise, communicating these complex topics, so it's a matter of philosophy, but it is often a matter of communication. I was confronted just last week with an international colleague talking about different units of communication and post-Fukushima, the challenges in understanding with the public that were created.

I want to once again thank OAS and CRCPD for being involved in the federal look at lessons learned after Fukushima where communication of the states and state experts was front and center, and I know we found a number

of things that we could learn and do better. And hopefully we won't have an opportunity to put it into play, but if we do, I think that that lessons learned was very important.

And Mr. Thompson, on Part 61, I will confess, as I listened to you, I thought well, that is an excellent articulation of why I am taking some time with the final rule. I will say that final rules for me are among the most sober responsibilities that I confront here because subsequent to my action and the remainder of the Commission, there will be compulsory actions taken by people, and so Part 61 is just a basket of such things, and there's -- speaking of striking this balance of different interests and inputs, it is elusive to find that perfect balance between, you know, disposal facilities and then generators and then, you know, states that want to be representing that they have a posture of protection of their people, and then also the suppressing effect on the development of disposal if states can't be responsive in a really direct way to their own citizenry by saying we're going to make an assessment, and we might have a standard that is slightly different.

So that is a very complex topic, and I know that the rule has been pending for some time. You were diplomatic enough not to ask exactly when it is that you can expect action on it, but it is tough.

And then Dr. Irwin, as I listened to your commentary, I was reminded of something I read just yesterday, which was a piece -- the headline -- we all have so much to read that we can't read all the things that we get -- but it was a trade publication, and it was something about addressing the MEGO syndrome, which I didn't know what that was, but it's MEGO, and it is "my eyes glaze over" syndrome.

And it was about making regulatory policy and regulatory activities more interesting and the complexity of what they bring. You mentioned that they teach you about governance. They teach you about process, about law. The underlying scientific subject matter also has to be addressed. But I would argue that they also teach you a little bit about core democratic principles. I mean, I think it is all in there.

And so yes, some people's eyes glaze over, but the most directly relatable thing between this piece and -- and your presentation was that the fundamental argument was because of all this, it is more necessary than ever to attract the best people into this area where perhaps at initial blush their eyes do glaze over. But it's a tremendous opportunity to work on important things, and I know that -- that domestically and internationally, agencies struggle to retain competent individuals. The pay scales differ. The training and advancement opportunities might be different than they would be outside the regulatory bodies.

I think that -- that at least providing high-quality training is an important -- it is, as you said, the investment in people, and that was a core element of this particular article, was that investing in the people and attracting and keeping the best people is more important than ever.

So I have consumed my time, as I like to do, but as I told you, you have teed up a lot of things. If any of you feel super compelled that you would like to react, I have just a few seconds left, and with the indulgence of my colleagues, I might go a little bit over. Is there anyone -- Dr. Irwin, you've got to have something to say to that about --

(Laughter.)

DR. IRWIN: I really appreciate all of your comments. I really appreciate all of the comments made so far, and I look forward to Commissioner Baran's as well.

I think specific to your last point relative to training, we have to find other ways to make this work more rewarding. We are competing not only with a wide variety of exciting occupations in this world, but with a lot of dramatic priorities. We see, and I work in a health department, that there are new emerging issues that transplant last year's emerging issue, and radiation protection is a very well-managed hazard. And if we don't find other ways to enrich the processes that we engage in to continue to manage it well, it is going to be unattractive.

So we need to merge it with a variety of other activities, and that is why I think that the continuing education beyond once you get your foundation is vital. You know, we want to have that solid foundation, but then we want to grow these individuals so that they are more valuable to their organizations as well as the National Materials Program, and one of the most rewarding ways that has occurred for me is to work with people like you, with people in other federal agencies.

And that is why these partnerships are so valuable, because those of us who come from the states where we have a somewhat smaller -- much smaller sphere in Vermont for sure of influences, it enriches us, and that enrichment is what is going to attract people to this work as opposed to the day-to-day tasks.

CHAIRMAN SVINICKI: All right. Thank you for that. Commissioner Baran?

COMMISSIONER BARAN: Thank you. Well, thank you all for

traveling to be here with us today and for your continuing partnership. We really appreciate it.

I would like to follow up on Sherrie's discussion of Category 3 radioactive source accountability. As the Chairman mentioned, GAO identified some issues with training and adherence to guidance, but I think the more significant finding related to the ability of a potential bad actor to produce counterfeit Category 3 possession licenses.

Right now, Category 3 sources are not tracked in the National Source Tracking System, and there is no regulatory requirement for a vendor to verify the authenticity of a license prior to transfer before selling them. And I see that -- I see that as a regulatory gap.

The Commission has directed the NRC staff to examine the different options for closing that gap. One option is to include Category 3 sources in the MSTS, but there may be other approaches that would resolve this issue. For example, we could require vendors to verify Category 3 licenses prior to a transfer through the License Verification System or directly with the licensing authority, either NRC or their Agreement State.

I have an open mind about how we address this issue. I think we should look at the pros and cons of the potential solutions, and then decide what makes sense. And as we try to figure out the best course of action, the views of the states are extremely helpful. 11 states, including Alabama and Pennsylvania, provided individual written comments on several questions recently posed by the staff in a Federal Register notice, and I see today's meeting as a great opportunity to hear additional perspectives and get further thoughts on the comments that were made in writing.

Let me start with a threshold question for Sherrie, and you can answer this for OAS or for Minnesota or I guess even just for yourself, whatever you feel most comfortable with: do you agree that the ability of a potential bad actor to alter a paper license and get vendors to sell it more Category 3 sources than it is entitled to obtain is a problem? Do you see it as a -- a vulnerability in the current system that could be exploited?

MS. FLAHERTY: I -- it could be. I mean, it is a vulnerability, but I think you have to kind of take a look at what is the -- what is the overall risk --

COMMISSIONER BARAN: Yes.

MS. FLAHERTY: -- and how many Category 3 sources would be required to create a really big problem? I mean, have we -- have we taken a look at that? And, like you said, if we're going to establish a threshold, what should that threshold be?

COMMISSIONER BARAN: Yes.

MS. FLAHERTY: Do we do a graded approach? And I don't know gentlemen if -- if any of you guys have anything else that you would like to add from your own state's perspective?

DR. IRWIN: So I'm not an Agreement State. We are working on that. But I think counterfeit money is a big problem, so if there are counterfeit licenses, that's a big problem. We should look at a simple solution, maybe that it is something that is more unique and has that uniqueness that increases the reliability of all users of that license, all viewers of that license.

It is an incredibly valuable item to have a radioactive materials license, and it should have the weight of currency like our money does. And to invest in just its form may prevent some additional bad actors from what may be in

some cases too simple to counterfeit.

MR. ALLARD: I was just -- Bill just made me think of something, and I did this at work because I was going to make a donation to something, and I tried to make a copy of a $20 bill. These new machines prohibit that. I don't know if have ever tried this, but it just came up dark. It was prohibited, or I got a flag.

So maybe some sort of a coating -- I know we use watermarks and such -- but some sort of coating that would actually prevent that license from actually being photocopied, so a technological answer might be an approach.

COMMISSIONER BARAN: This reminds me a little bit of Alabama's comments because, you know, the sense I got from the letter was your office was not comfortable calling this a regulatory gap, and I -- and I read North Carolina's comments the same way. And both Alabama and North Carolina argued that license validation is the real issue.

And I think that is right. I think that is -- I think that is the heart of the issue. I see that as a weakness in the system, though. Do you see, and this is a question for David or -- for the other David or others -- do you see a way for NRC to ensure proper validation of Category 3 licenses without a regulatory change?

MR. TURBERVILLE: In reference to Alabama, I know our director is working with people within the health department to see if we can come up with the same type of paperwork or paper to make it harder for this to actually be -- to occur, so I don't have the -- I am not in the front of that, so I can't answer more than that, but yes, I think that is the way to go for us.

COMMISSIONER BARAN: Do you have thoughts about that, Dave?

So I mean I see the point. I mean, as I look at it, I thought coming into today, I could think of at least three options. One is, you know, include the Category 3 sources in NSTS; one is to include them in the license certification system; one is, you know, require contacting the licensing authority, picking up the phone and saying, hey, I've got someone here with a license, is this a valid license?

MR. ALLARD: Right.

COMMISSIONER BARAN: I guess you could do that, or LVS is a third option. I guess this is a potential fourth option, which is make the licenses themselves less susceptible to --

MR. ALLARD: Forgery.

COMMISSIONER BARAN: -- forgery or --

MR. ALLARD: Yes.

COMMISSIONER BARAN: -- modification.

MR. ALLARD: Yes.

COMMISSIONER BARAN: Sherrie actually mentioned maybe that is a fifth option of some kind of graded approach on this. Maybe one of these other things, but only to a certain set of Category 3s. Is -- you know, if we wanted to have assurance that paper licenses all across the country were in fact resistant --

MR. ALLARD: Right.

COMMISSIONER BARAN: -- to being modified, is there a way to get there without making a change to the regulation?

MR. ALLARD: Yes, I am not sure on the technological approach, but for sure, I mean, we are on record, I mean, the -- the National Tracking System

would be a huge burden on us, but the license verification, I mean, it would be doable. But, you know, it's going to be initial work.

And again, for all the states, I mean, we've got -- even though we've got restricted funds and have fee-based, we have no general funds coming into our program. We are still with everybody else as far as the hiring ceilings now and -- and maybe an early out. The work -- I can't underestimate, you know, the concerns about staffing, and as Bill brought up, we, you know, polled all the -- all the states a few years ago as part of this NCRP work meeting, where are the radiation professionals going to come from? Don Cool was the NRC's rep at that big meeting.

We are looking at 30, 40 percent staff turnover in the next few years, just -- just from us baby boomers waving out, and so the training is key, and then, you know, with additional, you know, burdens as far as workload, it is real important.

COMMISSIONER BARAN: I am very sensitive to that --

MR. ALLARD: Yes.

COMMISSIONER BARAN: -- thanks for bringing that up. I -- you know, that was one of the questions that the staff had in their Federal Register notice, which is on the -- you know, on the license verification side, either through LVS or through some kind of --

MR. ALLARD: Right.

COMMISSIONER BARAN: -- other communication with the licensing authority, what would the resource impact be for the agencies? And some states responded --

MR. ALLARD: Yes.

COMMISSIONER BARAN: -- that they thought it would be pretty minimal. Texas, Illinois had that view. Florida had a different view. They thought it would be more resource-intensive. Do others have a thought about that? If the question is more on the license verification side, how resource-intensive do folks view that as being?

MR. ALLARD: The other thought we had, and we put this in our letter, was do we T&R the RSOs for Category 3s? Is that one way to screen, you know, the T&R, the radiation safety officer, for that license?

COMMISSIONER BARAN: Others have thoughts on the verification side, whether that would be -- kind of the resource intensity of that type approach for your agency, is that something you have a sense of?

MS. FLAHERTY: Well, we are in WBL, so for us, it wouldn't be as intense because the licenses would already be there.

COMMISSIONER BARAN: And maybe that is why I am seeing the kind of differences of opinion of that --

MS. FLAHERTY: Right.

COMMISSIONER BARAN: -- depending on where the states are in terms of WBL already.

MR. ALLARD: Yes. We have a custom, since we're talking about this at coffee just a little while ago, we have a custom system where all of our permits for the whole agency, water, air, waste, radiation, are all in one system, and there is just no way, you know, we can tap into the web-based licensing.

COMMISSIONER BARAN: Go ahead.

MR. THOMPSON: Commissioner Baran, one thing with the licensing: sometimes, it is the way the licenses are written. Now, I have large paper mills

in Arkansas, and they have 50, 60 gauges. The license is not written for 50 or 60 gauges. It's a maximum possession limit, which allows them the flexibility to be able to change, replace, add as their -- as their operation sees fit. That is one of the problems with relying on the license. It's not necessarily written for the inventory they may actually have.

COMMISSIONER BARAN: Yes. That is a good point. A common theme from nearly every state that submitted comments was that general licenses are not a good idea for Category 3 sources. I think 9 of the 11 states recommended eliminating general licenses for Category 3 sources and requiring specific licenses instead. The other two didn't say anything one way or the other. They might also be against general licenses.

What do you all think about this? You know, for those of you who did have written comments, do you want to elaborate a little bit about why you think general licenses are a bad idea? For those of you who didn't have written comments, do you have views on that?

MR. ALLARD: We are on record.

(Laughter.)

MR. ALLARD: But I will tell you, having seen a lot of these, you know, show up in scrap yards and such, the hazard is serious, so I think it is -- sadly, a lot of these sources, they're out there, but moving forward, I would definitely recommend, you know, moving away from these GLs --

COMMISSIONER BARAN: Just don't the accountability we need with --

MR. ALLARD: Yes, that's it.

COMMISSIONER BARAN: -- the general licenses.

MR. ALLARD: That's it right there, accountability.

PARTICIPANT: Yes.

COMMISSIONER BARAN: Okay. Well thank you very much. I appreciate the discussion, and I don't know if I have all the comments yet. I have read all the ones that I have seen, and I look forward to reading the rest, and I know the staff will do a good job reaching out to you all and getting further thoughts from you on this issue. Thank you.

CHAIRMAN SVINICKI: All right. Thank you. Did anyone have anything else?

(No audible response.)

CHAIRMAN SVINICKI: Well, with that, I do want to thank you all again for the work you do for those who support you in that work in your organizations and back in our agencies. These aren't issues that we tackle year-to-year in these meetings, and there is a lot of continuity, but I do appreciate Dr. Irwin's comments that this state/federal relationship kind of models something a little different than you might see elsewhere, or certainly something different than you might see these days. Generally, it is I think a real partnership, and -- and I think that is to the benefit of the public everywhere that it is that way.

So with that, we're going to be adjourned, but please don't run from the room because my understanding is some of us have agreed to be in a group photo, and we all wore our best today for that reason. Thank you. We are adjourned.

(Whereupon, the meeting went off the record at 11:23 p.m.)