

UNITED STATES OF AMERICA
U.S. NUCLEAR REGULATORY COMMISSION

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

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TRANSCRIPT OF PROCEEDINGS

Public Meeting

Before the U.S. Nuclear Regulatory Commission:

Gregory B. Jaczko, Chairman

Kristine L. Svinicki, Commissioner

George Apostolakis, Commissioner

William D. Magwood, IV, Commissioner

William C. Ostendorff, Commissioner

APPEARANCES

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Alan Jacobson
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State Department of Public Health (Alabama) (OAS Past-
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P.E., Radiation Inspections Branch Manager, Texas
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Chair-Elect)

1 PROCEEDINGS

2 CHAIRMAN JACZKO: Good morning everyone. Today we meet to
3 talk with representatives of the Organization of Agreement States and the
4 Conference of Radiation Control Program Directors. This meeting is always a
5 great opportunity for us to hear from all of you about how we can continue to
6 further enhance our strong working relationship on areas of nuclear regulation.

7 As our agenda today demonstrates, there are a number of
8 important issues in which we are currently working together, and they range from
9 medical event definitions to developing guidance for source security to training
10 for state personnel. And, again, as I've seen over the years on the Commission,
11 we continue to work to enhance and improve our communication and our
12 coordination, and I think it's critical for us to continue to do that to ensure that we
13 have effective programs in these very important areas. So, I think we have
14 considerable work to do and look forward to hearing from all of you about how
15 you think we can go forward and do this productively. I'd offer my colleagues an
16 opportunity to make any opening remarks that they may have. Oh, okay.

17 Well, we'll begin, then. Are we beginning with you, Cheryl?

18 CHERYL ROGERS: Yes.

19 CHAIRMAN JACZKO: Okay. Great. We'll start with Cheryl
20 Rogers, who is the chair of the Organization of Agreement States.

21 CHERYL ROGERS: Good morning, Chairman Jaczko, and
22 Commissioners Svinicki, Magwood, Apostolakis, and Ostendorff.

1 COMMISSIONER OSTENDORFF: That is a first.

2 [laughter]

3 CHERYL ROGERS: I am pleased to be here today with my
4 colleagues from the Organization of Agreement States. I have Alan Jacobson
5 here. He is from the State of Maryland; he is our chair elect. And David Walter,
6 from the State of Alabama; he's our past chair. I'm also very pleased to have my
7 colleagues from the Conference of Radiation Control Program Directors,
8 otherwise known as CRCPD -- Alice Rogers -- I affectionately call her my sister
9 Alice, and Earl Fordham -- she's the chair, and Earl Fordham is the chair-elect.
10 So, don't get us confused.

11 Let's see here. The five of us regulate about 3,450 licensees in our
12 respective states, and to put that into perspective, the Nuclear Regulatory
13 Commission regulates about 2,977 licensees from a tally conducted in November
14 2010. So, we are equivalent or a little more than what the NRC regulates in the
15 realm of radioactive materials. So, just as we have, you know, we have that
16 strength here, although we do other things, and we know the NRC does other
17 things than radioactive materials, I kind of wanted you to put that in your mind a
18 little bit.

19 Public health and safety for radiation workers and the public is our
20 core mission. Of the agencies here, four of the five of us are in public health.
21 So, and you will hear some more about that from Alice at the end of our remarks
22 today, but public health. We are a little different than you guys. You are more --
23 let's see -- health and security, I guess, is how I'll say it.

24 Okay. The 37 Agreement States participate in approximately 38
25 working groups or steering committees. I have heard that there is some

1 consternation at times about the quantity of comments received from the
2 Agreement States. Let me assure you that the process is working. The
3 Agreement States provided staff for about 38 working groups, and 22 states are
4 represented among those staff. We are managing, despite the difficult economic
5 times, to do our part in the regulation of radioactive materials. In addition, the
6 leadership of both OAS and CRCPD provide written comments from the boards
7 on the numerous initiatives, revisions, and proposed regulations. There are now
8 multiple opportunities to comment, including stakeholder meetings, pre-
9 decisional drafts, draft pre-decisional finals, and, of course, the working groups.

10 The last time we briefed the Commission was in August 2010; and I
11 understand the Commission would like to continue the practice of a spring
12 briefing, and that is acceptable to us. We are here to give you our substantive
13 comments and perspective on the regulatory process, framework, and the extent
14 to which we have managed to coordinate and reach consensus on major
15 regulations and implementation of initiatives. We are also here to point out a few
16 areas that could be improved and that will greatly benefit the health and safety
17 and security of the public.

18 So, my topic today is the Part 35 medical event definition as it
19 pertains to manual brachytherapy, and I guess I'd further like to narrow that to
20 say it's mostly on prostate brachytherapy. I would like to begin by telling you how
21 this topic rose to the level of needing guidance for just the current regulation.

22 A Region III NRC inspector conducted an inspection of the VA
23 hospital, and she had a questioning attitude about what she observed. Our State
24 Agreement's officer is from Region III -- that's Jim Lynch -- and he advised
25 Wisconsin's who checked during our inspections, whether our licensees were

1 doing post-implant verifications. It was perhaps a year later that an inspector
2 asked a medical physicist during a broad scope inspection at one of our major
3 licensees -- we have four broad scopes -- what criteria were being used for these
4 post-implant reviews? The medical physicist stunned the inspector by stating
5 that no criteria were being used. If all the seeds were implanted, then the
6 procedure was successful. Again, the inspector had a questioning attitude.

7 Over the next year, Wisconsin issued both an Information Notice
8 and a Regulatory Information Summary, and I can report that now all Wisconsin
9 licensees do have criteria in place, and Wisconsin does not have any additional
10 reports of medical events from these prostate brachytherapy licensees. Ohio
11 also pursued this issue with their licensees once it came to light via an allegation.

12 Kentucky, however, had a different experience. Kentucky came to
13 the Organization of Agreement States requesting assistance because there was
14 not any guidance to follow for the situation of no criteria or inadequate post-
15 implant verifications. The Organization of Agreement States determined that we
16 would put a guidance document together, and we were ready to do so when we
17 connected with NRC, who was also planning to address some technical
18 assistance requests. We had hoped that this guidance would be completed by
19 the end of 2011. As the co-chair of the steering committee, I am pleased to
20 report that it should be out this month, and the plan is to brief the regions and the
21 states by the end of April.

22 The Organization of Agreement States did perform a survey of the
23 Agreement States, and 14 states responded. That may not sound good to you,
24 but that's pretty darn good for our organization. The results of the survey were
25 briefed at the stakeholder workshops held in New York City and Houston last

1 year as well as at the Organization of Agreement States' annual meeting. There
2 has been considerable discussion regarding using an activity-based medical
3 event criteria for prostate brachytherapy -- well, the other ones, too, but I'm
4 focusing on prostate. I would like to advocate for keeping a dose-based criteria
5 in the regulations. Based on the responses from 14 states, dose-based criteria
6 are currently used and do not appear to cause licensees to report an excessive
7 number of medical events.

8 So, that concludes my main remarks on the medical event
9 definition. In summary, this is a little bit of a leap; I would say that safety culture
10 and risk-informed regulations are now part of how we conduct our regulatory
11 programs. The states emphasize the importance of adequate radiation safety
12 programs and actively promote a questioning attitude. We conduct performance-
13 based inspections, which are well-received by the licensees, as they tend to
14 bring the focus on ways to improve the radiation protection programs.

15 So, that concludes my remarks.

16 CHAIRMAN JACZKO: Well, thank you for that. We will now hear
17 from Alan Jacobson, who will talk about the impact of expanded and increased
18 control requirements in Part 37.

19 ALAN JACOBSON: Good morning. It's a pleasure to be here
20 today to speak before the Commission. The Organization of Agreement States
21 recognizes that the security of category I and II sources is important for
22 protecting members of the general public from the improper use of radioactive
23 materials. We acknowledge that regulation is the correct method for
24 implementing the measures necessary to improve health, safety, and security.

25 The states were engaged early and often in the development of the

1 process and provided the opportunity to comment and have a positive impact on
2 this proposed rule. State representation on the working groups and steering
3 committee was substantial and critical in the rulemaking process, the result being
4 a satisfactory role.

5 It is my understanding that the regulation will be published soon,
6 effective one year after publication, and the states will have two years from the
7 effective date to adopt the regulation. This allows the states a similar, or usual,
8 three year timeframe to adopt the regulation. As a result, the impact to the
9 Agreement States regarding implementation will be minimal and predictable.

10 Some Agreement States will now be conducting -- there will be
11 some challenges. Some Agreement States will now be conducting category I
12 security inspections without an addendum to the 274(I) agreement, and without
13 financial compensation from the NRC; and once these regulations are in effect,
14 the Agreement States will be modifying or removing security license conditions,
15 or, in some cases, security orders that will no longer be necessary.

16 For the most part, implementation will be eased by, first, the
17 transparency of the rule-making process. The fact that the state inspectors
18 attend the NRC materials-control security systems and principles course, the
19 increase controls toolbox is a very useful resource. Implementation will be eased
20 by the fact that the framework of the proposed regulations has been in effect
21 through NRC orders and state license conditions for some time now, and, in
22 some cases, many years.

23 The NRC and the Agreement States have effectively worked
24 together to create this regulatory framework, and this framework provides a
25 common baseline level of security that the Commission determined to be

1 adequate, and this level of security provides reasonable assurance for the
2 protection of radioactive material in the current threat environment. Furthermore,
3 state inspections have revealed that the security at these facilities has improved,
4 and, considering the potential security risks, the costs to implement these
5 requirements were reasonable. And, finally, we appreciate the opportunity to
6 have had such a successful and positive influence on this important rule, and we
7 plan to build on this experience in the future. Thank you.

8 CHAIRMAN JACZKO: Well, thank you for that presentation. Now
9 we'll now turn to Mr. David Walter, who will talk about the state's perspective on
10 license verifications systems.

11 DAVID WALTER: Good morning. I am very happy to be here
12 again today to speak before the Commission, and I'd like to point out that on
13 March 26th, it was an anniversary of sorts. It was the 50th anniversary of the
14 Agreement State program. On that day, in 1962, Kentucky became the first
15 Agreement State. We're now 37 states strong. We regulate some 87 percent of
16 the byproduct material licensees in the United States, and I'm proud to represent
17 an organization that works in partnership with the NRC to provide for the health
18 and safety of occupational workers, the public, and as well as the environment.

19 Today, I will be discussing the license verification system. I'll also
20 talk a little bit about training, and I'll provide an opening statement for the effects
21 of compatibility on the Agreement States. The majority of that subject will be
22 handled by Alice Rogers, who, along with myself, is a member of the Adequacy
23 and Compatibility Working Group.

24 So, let me start with the license verification system. The license
25 verification system, or LVS, should allow registered parties to determine that a

1 licensee can retrieve or receive a specified source and remain within their
2 maximum possession limits. As we move toward a nationwide LVS, certain
3 elements need to be in place to allow for the data to be compiled. One, the
4 National Source Tracking System, or NSTS, is up and running, and fine-tuning of
5 that has increased the efficiency and user-friendliness of the system. The other
6 piece needed that completes the LVS is a license tracking system, or LTS.

7 The NRC has communicated to the states the data that they need
8 to have available to make the program viable; however, funding to revise current
9 programs or to develop new programs that make such data available to the NRC
10 can be a major hurdle for many states. To that end, some Agreement States are
11 working with the NRC on a pilot project to develop suitable license-tracking
12 systems based off of the NRC's LTS. Now, I've discussed this with Lee Cox of
13 North Carolina and how this is working in his state, and he's very optimistic and
14 very enthusiastic about it.

15 The ability to integrate the NRC's LTS program in a way that works
16 for his state is something that otherwise would perhaps not be possible.
17 Unfortunately, most state economies have not improved since the last time I
18 addressed the Commission in 2010, and, if anything, they've gotten worse. The
19 ability to use a program that's already been developed and incorporate minimal
20 changes to address state-specific needs, and additional programs, such as x-ray,
21 at a cost savings is, indeed, a very helpful thing for the states.

22 Lessons learned during this pilot project will help streamline such
23 installations in other states. This will ultimately allow states with limited
24 resources to implement a state-of-the-art information system, a system that
25 should increase their efficiency and allow the NRC to reach full implementation of

1 the license verification system in a shorter period of time.

2 The OAS appreciates the NRC's efforts to share this technology
3 with the states and encourages its continued development. For those states that
4 have already implemented new information systems or are required to use an
5 existing statewide system, we encourage the NRC to maintain continued
6 communication regarding the information fields and/or data that you will need to
7 properly implement a nationwide license verification system.

8 Now, I'd like to move on to training. At this time, we all find
9 ourselves in the midst of the loss of long-time employees and their years of
10 knowledge and experience, and, as a result, we're finding it necessary to hire
11 new employees. But, to ensure that we're able to carry out our mission to protect
12 the radiation health, and safety of the occupational worker, the public, and the
13 environment, it's imperative that we maintain staff that is properly trained. Proper
14 training is a fundamental aspect of a solid safety culture, and while some states
15 have developed their own in-house training programs for new employees, most
16 states do not have the staff, facilities, or funding necessary to maintain such a
17 comprehensive program. There are extensive costs involved in the proper
18 training of a new employee, and the OAS appreciates the NRC's willingness to
19 fund state participation in the various training programs that they offer, and we
20 strongly urge continued funding in this area.

21 We understand that there is limited funding available for the training
22 programs. Nevertheless, with the number of new hires that we've had to make to
23 replace long-time employees, we're sometimes finding it difficult to get our new
24 staff in the needed courses. In some instances, individuals have been turned
25 down multiple times. Examples of such courses include the Nuclear Medicine

1 Course -- that's H-304, and the Brachytherapy and Gamma Knife Course, H-313.
2 Currently, there is a plan to double the number of these courses from two times a
3 year to four times a year, and that would increase the number of state slots
4 available to 32 per year. There is currently a backlog of 40 state employees' staff
5 that needs this training, and there will be more coming. We encourage the NRC
6 to further increase the number of times these courses are offered to allow for
7 more training opportunities. As most of us old-timers ride off into the sunset,
8 proper training of our replacements becomes more and more of an urgent issue.
9 We're all having to make very difficult financial decisions that lay the groundwork
10 for the future of maximizing radiation safety while using even less resources.

11 And, now, as I stated earlier, Alice Rogers and myself, along with
12 the NRC staff, make up a working group that is currently in the process of
13 reviewing and revising the adequacy and compatibility policy statement and
14 Management Directive 5.9, Adequacy and Compatibility of Agreement State
15 Programs. The fact that the past chair of the OAS and the current chair of the
16 CRCPD are representing the states on this working group indicates the
17 importance that we place on this issue.

18 And, as I turn this subject over to Alice, I want to thank the
19 Commission for the chance to address you today. The OAS will continue to work
20 in close partnership with the NRC to enhance and refine the safety culture that
21 has been built over the last 50 years. Thank you.

22 CHAIRMAN JACZKO: Thank you.

23 ALICE HAMILTON ROGERS: Thank you, David. Good morning,
24 Mr. Chairman, Commissioners. As you aware, the Atomic Energy Act requires
25 that an Agreement State maintain a radioactive materials program that is

1 adequate to protect public safety and that is compatible with that of the NRC.
2 The NRC staff and Agreement State leadership have worked together on
3 defining an adequate and compatible program since, if memory serves, the early
4 90's. We have come a long way and pretty much have a good, clear picture on
5 adequacy.

6 Compatibility, however, remains a sticking point. If one looks up
7 compatible in the dictionary, it says, "Existing together in harmony." For most
8 Agreement State program directors, harmony is achieved when the individual
9 needs of a state and the needs of the overall nation are met. We ask for your
10 continued support of allowing states flexibility.

11 You're probably wondering what kinds of situations might occur for
12 states to need such flexibility. Some examples are, first, during the last oil boom,
13 one state with a large oil and gas exploration and production industry saw a need
14 for specific rules regarding industrial radiography. This state worked with its
15 stakeholders through 17 drafts of the rule to develop and promulgate radiography
16 rules well ahead of the NRC.

17 Second, some states only have exempt sources and license
18 sources -- they don't have any generally licensed devices. These states believe
19 it gives them better situational control and awareness over the sources. Had the
20 recent GL Rule been approved by you all, which it was not, those states would
21 have had to release control, which they believed would be going backwards.

22 And, third, is the Medical Rule, which until 2002 were Compatibility
23 D but were changed by the Commission upon adoption to Compatibility B,
24 needing to be -- which meant they needed to be essentially identical to those of
25 the NRC. Many of those requirements in the medical rules deal with training, and

1 since the practice of medicine is regulated only by states, it is still difficult to see
2 how training should be consistent nationally.

3 In summary, we ask for your continued support for allowing states
4 flexibility to appropriately regulate the uniqueness of uses of radioactive materials
5 within their states. Thank you.

6 CHAIRMAN JACZKO: Well, thank you. Now I think we'll turn to
7 Earl Fordham, who will give the next presentation.

8 EARL FORDHAM: Good morning, Chairman and Commissioners.
9 Thank you for the opportunity to talk to you today about low-level radioactive
10 waste, current disposal options, and the Part 61 changes that are on the table.
11 Set the stage -- in a previous life, I served for 12 years as the resident inspector
12 for the state of Washington at the commercial low-level radioactive waste site on
13 the Hanford reservation, and I now oversee that program as part of my regional
14 director duties.

15 I, too, would like to thank the NRC for their recent involvement in
16 the low-level forum meeting in Dallas, with changes to the concentration
17 averaging ETP were reviewed, and comments from the sited states discussed
18 and also your recent Part 61 workshops and status meetings for the sited states,
19 and very informative about keeping us in the loop and involved as the Part 61
20 changes move forward.

21 Let's start out today with a little history about low-level waste since -
22 - and it goes quite a ways back. Back in the late 70's, there were several issues
23 that led to the closure of the three operating sites. This resulted effectively in the
24 1980 low-level radioactive waste policy and the 1985 amendments act -- these
25 laws envisioned a sharing of the wealth, so to speak. Two important aspects

1 from these laws were the establishment of regional compacts to accept waste,
2 and the exclusive authority provided to those compacts to exclude waste from
3 outside their borders. Washington and South Carolina are still operating from
4 that era and enjoy the exclusive authority provided under those laws.

5 So, let's talk just a little bit about how successful we view those
6 laws in today's world. You may recall back in the early 90's the Policy
7 Amendments Act allowed sited states to assess surcharges against waste from
8 other states not making adequate progress in the development of their own
9 disposal sites. Surcharges got as high as \$120 per cubic feet. I saw surcharge
10 checks come across my desk, at least copies of them, that were over \$100,000
11 for waste coming in in the '92 timeframe. This thinly veiled attempt at an
12 economic solution to a political problem did not result in any new sites. The only
13 site developed, licensed, and hopefully will open here shortly, will be the WCS
14 site near Andrews, Texas. If you recall, the Ward Valley site in California was
15 sidelined with political maneuvering.

16 One site is clearly not what the lawmakers of the 1980's
17 envisioned. How is this sharing of the burden of low-level radioactive waste? I
18 must also admit, though, that the eight or nine compacts, each with their own
19 site, did not make any economic sense, either. What Texas has done even
20 before the site has opened is to, in effect, sidestep the compact idea again by
21 establishing laws and rules to allow the importation of low-level radioactive waste
22 from outside its compact, very similar to what the energy solution site operates
23 and does in Utah. Thus, the end result is an economic solution replacing a
24 political solution that did not work. Instead of encouraging states to site a facility,
25 like was done with the waste isolation pilot project in New Mexico, we tried to

1 penalize them into compacts.

2 That's something to ponder. What is going to happen in Texas
3 after the startup costs -- very high indeed -- are recovered? Will the Texas
4 compact follow the lead of South Carolina and close its borders, you know, again
5 causing a potential national shortage in disposal capacity? Only time will tell.

6 In short, it's my belief that any changes to the Policy and
7 Amendments Act is currently a political nonstarter. Some type of crisis will need
8 to light the fuse of action. We'll see how that happens.

9 So, what are the disposal options in today's world? Currently, as it
10 stands today, 36 states are without, you know, disposal options for their Class B
11 and C waste. Utah's Energy Solution site provides access to Class A waste to
12 those states outside of the northwest and Rocky Mountain and Atlantic
13 compacts, and with the eminent opening of Texas to potentially the entire
14 country, it would seem the country's disposal options are solved. This is not the
15 case, as Texas compact is opening its borders at anticipated high prices.

16 Now, a nuclear power plant should have no problem in actually
17 being able to afford these rates -- they just pass on these increases to the
18 ratepayers. You know, smaller generators may not be so lucky; in fact, my
19 discussions with waste brokers leads me to believe otherwise. Anticipated rates
20 are expected to be a substantial burden to the non power plant generators. In
21 fact, some compacts, such as the Southeast compact, have sent letters to the
22 Texas compact, asking for a set-aside, either based on activity or volume, to help
23 in this regard, as they work through the pricing.

24 Other disposal options include thermal treatment at various facilities
25 across the United States. The main limit here is the NESHAPS 10 millirem

1 standard, so you've got disposal going up the stack, basically. Thermal
2 treatment offers a huge -- up to 300 to 1 -- volume reduction, whereas the more
3 classical supercompaction may achieve a 20 to 1 reduction in volume, and the
4 residue from a thermal treatment is typically Class A waste.

5 The State of Tennessee offers a bulk survey for release program
6 which permits very low levels of radioactive wastes to go to one of two municipal
7 landfills. Manual dose limit to local, you know, landfill neighbors controls the
8 concentration in the waste. Texas, additionally, regulations allow certain
9 concentrations of short-lived radioactive materials to go to municipal landfills.

10 Other ideas and practices that I've heard are land farming and
11 down hole disposal, primarily practiced in the south. A newer idea that has not
12 received much attention but is very similar to these ideas is using the ICRP's
13 concept of three tiers of waste classification. Radioactive waste with
14 concentrations, you know, at fractional levels of the Class A limit but above
15 exempt quantities could potentially go to RCRA subtitle C landfills. This is an
16 idea that's gaining in popularity.

17 In the near future, if not already, as my data is as of last Friday, the
18 State of Utah may issue its license amendment allowing Energy Solutions to
19 accept Class A sources for one year from initial receipt. The inventory here is
20 huge, 1,500 to 2,000 Class A sources nationwide. The efforts are underway by
21 the CRCPD and the Department of Energy through their global threat reduction
22 initiative to organize this effort so that we can maximize the amount of sources
23 allowed for disposal into the Clive site.

24 In order to eliminate the time loss of individual entities negotiating
25 with Energy Solutions, the CRCPD is looking to spearhead the states to act on

1 behalf of the generators in their states. Cost-sharing arrangements will also be
2 offered to generators who need it; however, my understanding is Utah plans to
3 classify the sources over the size and weight of the source itself and not include
4 encapsulation media as allowed in the Branch Technical Position.

5 One of the keystones of the waste classification is the 1983 Branch
6 Technical Position and its successor changes to individual sections. Most
7 recently, the NRC has distributed a revised concentration averaging portion to its
8 BTP, updating a 1995 version on concentration averaging. The sited states,
9 including Texas, developed specific comments on the document and submitted
10 them to the NRC recently at the low-level waste forum. Even though the
11 concentration averaging BTP is only guidance, most states use it in some form in
12 regulation or in licensing. In Washington, we require waste classification to be
13 done using the most current version of the Branch Technical Position.

14 As such, the higher source limits could invoke public interest in
15 sited states. Typically, you see where cesium is currently limited to about 30
16 curies for disposal, going up to 130 as, generates some interest, potentially, in
17 sited states, and it's of great interest to have the BTP authors attend local
18 meetings to address public concerns over these higher source activities.

19 Another part of this, it's kind of interesting from my own
20 background, is blending, as described in the new BTP, for gamma controlling
21 isotopes, scares us as we really can't verify it's being done properly if it's done
22 outside of our own state borders. Now, luckily in Washington, I've only got one
23 power plant, and it's just down the road from the disposal site, but in other
24 compacts, you know, and if Texas takes the waste, this could be of real interest if
25 they're taking in these packages that basically are Class C by about that much.

1 And, so, it's very, very close that they could easily, if they had improperly run the
2 software program, send somebody greater than Class C waste. So, it's, you
3 know, really kind of iffy there, and it's got the sited states very concerned.

4 I'd like to finish my time talking about Part 61, depleted uranium,
5 and the period of performance issue. I fully support the requirement for a site-
6 specific performance assessment for DU versus a generic limit in the waste class
7 tables. Most of the sites have now done site-specific performance assessments,
8 so this clearly puts the burden on the state and the site operator to develop this
9 new limit and integrate it with any other existing performance assessment.

10 The other part of this is the period of performance that is being
11 looked at. We have several timeframes already in the rule -- 100 years for Class
12 A, 300 years for Class B, 500 years for Class C. Well, let's not forget uranium
13 mills. You've got 1,000 years there. So, where did 20,000 years come from?
14 So, we're really interested in seeing -- it's problematic for a low-level waste site
15 that has a high volume of uranium to look at 20,000 years, because you may
16 cause it to exceed its 25 millirem annual standard.

17 I appreciate the Commission allowing us time to talk about low-level
18 waste in a climate so politically cold, with limited resources and shoestring
19 budgets, it's essential that the states partner and leverage with, you know,
20 others, you know, for any resources that we have. States have the low-level
21 radioactive waste operational experience as all the sited states are in Agreement
22 States. The NRC, though, brings it to the table, the resources to bring policy
23 from the stone ages of the 1970's into today -- 40 years, Stone Age? Yeah,
24 that's about where we're at. You get different scenarios used in as far as
25 performance. It is essential that we continue to build and strengthen that

1 relationship between the states and the NRC. Thank you for, very much for this
2 time, and I'll be glad to take any questions later.

3 CHAIRMAN JACZKO: Thank you. I'll turn to Alice Rogers for
4 discussion on the NREP program.

5 ALICE HAMILTON ROGERS: Thank you again. CRCPD past
6 chair Adela Salame-Alfie was unable to be here today and she asked that I
7 present this topic for her.

8 Thank you for the opportunity to talk to you about cooperation and
9 collaboration between radiation control and public health agencies. In particular,
10 we'd like to talk to you about our work with the National Alliance for Radiation
11 Readiness, which is also referred to as the NARR. Let me start by saying that for
12 the last couple of years, CRCPD has been engaged in a process aimed at
13 bringing together radiation control and public health programs. Through --
14 though the NARR has been in the process of being -- let me start over on that
15 sentence.

16 Though the NARR had been in the process of being formed over
17 the last couple of years, it was formally launched in the midst of the response to
18 the Fukushima-Daiichi accident during last year's Bridging the Gaps conference
19 which was, serendipitously, held the week after the tragic events in Japan. One
20 of the main goals of the NARR is to be the collective voice of health in matters of
21 radiological readiness. And, as you recall, in the early days following the
22 earthquake, tsunami, and radiological accident at Fukushima-Daiichi, the state
23 radiation control programs as well as the state and local public health agencies
24 had no firsthand information on what was going on in Japan and had to rely on
25 information from foreign sources, the Internet, and the media.

1 We understand that the role of many of the federal agencies was to
2 provide support and technical assistance to the government of Japan;
3 unfortunately, that left the states with the de facto information vacuum. Couple
4 that with the fact that the so-called experts and the media were feeding the public
5 inaccurate and alarmist messages, which resulted in an even greater need for
6 state and local governments to respond with a clear and factual message. That
7 the radiological accident took place in Japan almost 5,000 miles away did not
8 lessen our jobs to explain to our elected officials and the members of our public
9 the lack of public health implications in the U.S.

10 So, how did the NARR help? Well, out of the more than 15
11 member organizations and federal partners, we convened regular conference
12 calls with a select number of them to try to get updates for both the public health
13 and radiation control agencies. Having public health and radiation control
14 together in these calls provided a common forum for sharing information, such as
15 environmental data, asking and answering specific questions, and identifying key
16 messages. Though it took a little while to get the process going, it resulted in the
17 most effective and reliable source of updated information for us.

18 One critical activity that resulted from this collaboration was the
19 development of passenger screening protocols. Early on, we realized that the
20 Japanese government was too busy dealing with the multiple emergencies, and
21 that screening people prior to boarding planes was not a top priority. At the
22 same time, we realize that we needed to address this public health concern. In
23 order to do that, we had a subgroup of the NARR member organizations, along
24 with some federal agencies, such as CDC, customs and Border Protection, and
25 the Public Health Service Quarantine, working together to develop a protocol that

1 could be used to screen passengers arriving on non-stop flights from Japan. The
2 process of developing the protocol brought to light areas where a clear policy did
3 not exist, such as whether Customs and Border Patrol could detain somebody
4 and force him or her to decontaminate prior to officially entering the country.

5 This protocol was shared with the state radiation control programs,
6 state and local public health directors, and the respective epidemiological staff at
7 the health departments, so we were ready to screen and decontaminate people
8 as necessary. It took a while for the protocol to be officially vetted, but now we
9 have that protocol and it can be used at a moment's notice. The NARR plans to
10 test this protocol during a tabletop exercise later this year.

11 Another activity we'd like to highlight is the after action meeting that
12 took place last November. The NARR convened this after action meeting to
13 specifically focus on the public health and medical response issues. During that
14 meeting with over 60 participants representing multiple disciplines, we were able
15 to gather information on our strengths, weaknesses, areas for improvement, and
16 we posed the question, "What if it happened here?" We are in the process of
17 finalizing the report, and we will be happy to share it with the NRC.

18 You may be wondering why we chose to talk to you about NARR.
19 We realize that in the current environment where we are operating with limited
20 resources and shoestring budgets, it is essential that we partner and leverage
21 whatever resources we have. Over the last few years, we've done a lot of
22 planning, trained our staff, participated in exercises to increase our level of
23 readiness, but we've known that in a real emergency, we will be stretched, and
24 we confirmed that last March during our response to Fukushima. It is essential
25 that we continue to build and strengthen these partnerships, and we want to

1 thank the NRC for being one of the federal agencies that comprise the NARR.
2 We believe that having these partnerships makes us a stronger and more
3 resilient nation. Thank you very much for your time.

4 CHAIRMAN JACZKO: Well, thank you for all of those
5 presentations. We will begin questions and comments with Commissioner
6 Ostendorff.

7 COMMISSIONER OSTENDORFF: Thank you, Mr. Chairman.
8 Thank you all for being here today. I found your presentations very helpful, and I
9 think your being here is just really important for the Commission.

10 Cheryl, I'm going to start with you. You touched on a substantive
11 area that's been somewhat challenging to this agency and the medical event
12 definition, and some of you all have recognized that the challenges of trying to
13 deal with activity-based or dose-based approaches in the context of an
14 environment where -- we're not medical practitioners. We're not physicians here,
15 and I was going to ask you to please just expand upon, you know, very brief
16 position that you talked about, and I was going to ask you perhaps to expand
17 upon that a little bit and maybe comment specifically on the ACMUI proposed
18 definition that really is going to an activity-based dose for some purposes, but a
19 dose-based approach for neighboring organs, that kind of an approach. Are you
20 familiar with that?

21 CHERYL ROGERS: I'm not -- I've read the ACMUI thing. I don't
22 quite understand it, to tell you the truth.

23 COMMISSIONER OSTENDORFF: Okay.

24 CHERYL ROGERS: I would like to maybe go back a little bit to
25 what we did in Wisconsin. I understand that there is always a balance between,

1 you know, what we try to impose as regulators, and then, of course, the
2 authorized users in the practice of medicine, and I have a very high level of
3 respect for the authorized physician users, and, you know, we certainly want
4 them to be able to practice medicine in the best possible manner that they can,
5 and, hopefully, you know, when it gets, becomes our turn one day, you know,
6 they'll do a good job on us.

7 What we did in Wisconsin -- and I'm not as familiar with the other
8 states, but what we did in Wisconsin was we asked the authorized users to
9 clearly state what their intent was, and when we finally did discuss it with the
10 actual authorized physician users, it didn't seem to be as big of a problem as
11 everybody was saying. You know, we found out that there are some differences
12 in approach, you know, whether you're trying to, you know, treat the edges, and
13 maybe you're going to go outside the prostate, or, you know, maybe you don't
14 care so much about the urethra, which goes right through the middle of the
15 prostate, you know, maybe that's okay if you've managed to treat the cancer.
16 But the key for us in Wisconsin was to go and discuss with authorized physician
17 users, "What is your intent?" And that is in the rule. You know, what is the intent
18 of the authorized user, and it's supposed to be reflected in the written directive.
19 The problem kind of is the written directive these days is kind of what you use to
20 order the seeds. You know, I want to do this dose, we're going to need to order
21 these many seeds, and it's kind of a fringe part of their process. The doctor's
22 process is more in the planning phases, and that's when you get into the D80
23 and the D90, and the other organs.

24 So I understand it's a tough issue that's in front of the Commission.
25 You will be -- hopefully hearing from Chris Timmerman who will be here at the

1 end of the month to talk on that some more. He just got done working on the
2 guidance document that I spoke of, and then of course the next phase is what
3 are we going to put in Part 35, you know, as the rule develops.

4 I guess I just don't -- I just want to make sure that because there is
5 so much consternation out there about this medical event definition, and
6 especially, I think, because the community, the medical community, thinks we're
7 saying you did something wrong, and that may or may not be the case for the
8 prostate stuff. We feel very assured by the efforts we took in Wisconsin because
9 we saw so many process improvements come about, which was exactly what we
10 wanted to do. We wanted you to take a look, look back however far you need to,
11 and decide if you needed process improvements. Some people had criteria
12 already, just a couple. Some people did the -- what's it called -- intraoperative,
13 so they could get exactly what they wanted for dose in the operating room, and
14 some people needed help, and either -- you know, I think for the most part
15 brought their programs up to a better standard.

16 So I don't know yet, we'll see what comes out of ACMUI. I know
17 they're working on that issue, I know there's some strong feelings, I guess what I
18 would like to say is don't just decide that dose-based doesn't work, it does work.

19 COMMISSIONER OSTENDORFF: Okay, thank you. I appreciate
20 that. Just one very brief follow-up on that. To what extent is this topic widely
21 discussed among the Agreement States? Is this something that has much
22 attention with your counterpart states, and as chair of OAS, is this on the top 10
23 list to Agreement State issues to discuss, or -- I'm trying to understand just what
24 level of discussion, debate might be occurring out there.

25 DAVID WALTER: If I may, Commissioner, this issue has probably

1 been one of the forefront issues over the last few years, but then it's been a
2 forefront issue on a nationwide basis now for the last four, five years. It's -- I
3 think the biggest problem that we have is that when a physician orders -- makes
4 his order, he's -- or her order -- they're ordering a dose to a particular volume --
5 target volume, and then the decision is made as to what activity and the way the
6 seeds are to be implanted is what gives the closest approximation of that dose as
7 requested. If you're going to go back to saying, all right, the states have -- I've
8 not heard anyone yet say that they agree that an activity-based decision or
9 model, is going to, by and of itself, work, but when you look at what's required, its
10 activity, location over a given period of time dose. What it all comes back to.

11 You're never going to get away from the dose, no matter what we
12 put in these rules, in the end dose is going to end up being the driving factor, and
13 I think that's what -- that's kind of the tact that the Agreement States are seeing
14 in this, is it -- really, it's all about dose anyway. If we try and make it about
15 activity because it's easier to figure that out, is that really the right way of doing it,
16 because it's only one of three factors that you have to consider.

17 COMMISSIONER OSTENDORFF: Okay, thank you, appreciate
18 that. Alice, I want to go to your part two presentation for a minute, on the NARR
19 topics, and I found it very interesting, and I appreciate you sharing with us the
20 passenger screening protocol example of what -- of a substantive, but specific
21 issue you all have addressed. Can you project or anticipate, you know, two or
22 three key issues that you see going forward that NARR will trying to be working
23 with your organization, with the NRC on, any indication on that?

24 ALICE HAMILTON ROGERS: Yes, the -- I know of a couple -- I'm
25 sorry Adela's not here because she could really tell you. The NARR's working on

1 public information in the unfortunate, and we hope never happens, event of an
2 IED, as well as an RDD. They are also working on -- let me -- let me get to
3 Adela, and I can get that answer back to you.

4 COMMISSIONER OSTENDORFF: That would be helpful, and I
5 realize you were pitch-hitting for her today, but --

6 ALICE HAMILTON ROGERS: During Fukushima, if I can kind of
7 expand a little bit, knowing the number of radiological labs in the country, and
8 what they can do, we didn't really know. Knowing how to communicate to folks
9 that they really probably didn't need to be taking KI, we hadn't really ever done
10 that before. So those are some examples. People were scared, Earl can even
11 speak better because he was on the west coast, and they got detections on
12 federal monitors that we -- that the states were not told about before the press
13 was, and so we were put in the position of having to answer phone call after
14 phone call after phone call for truly scared people, and so those are the kinds of
15 things that the NARR is really trying to wrap their arms around.

16 In my own agency, the epidemiology people were very concerned
17 that they were going to have to track these contaminated passengers. In fact, we
18 didn't have any come to Texas, so we weren't doing any tracking, but putting all
19 those pieces together is what the NARR's really all about.

20 COMMISSIONER OSTENDORFF: Earl, did you want to add
21 anything to that with respect to your-- Washington state?

22 EARL FORDHAM: Yeah we had a couple times back when the
23 NARR was actually meeting at CDC in Atlanta; the first two contaminated
24 individuals came to our ports in Washington. We used existing protocols that we
25 use internally to actually determine whether or not they were contaminated, and

1 worked through the process there. We also had Department of Transportation
2 issues where Homeland Security said, "Yes, it's contaminated, but let the cargo
3 containers through." It wasn't until the -- our licensees actually came back and
4 had emptied the containers, or surveyed them upon arrival, that we found out
5 that there was contamination on them. We hadn't been told by our Customs and
6 Border Patrol.

7 COMMISSIONER OSTENDORFF: Thank you. Thank you Mr.
8 Chairman.

9 CHAIRMAN JACZKO: Commissioner Svinicki.

10 COMMISSIONER SVINICKI: Well, I want to join my colleagues in
11 welcoming each of you here. I sometimes comment at this meeting, or I'm
12 reminded how I began my career, with a state regulatory agency, Wisconsin's as
13 a matter of fact. So when I listen to all of you speak from your perspectives, I
14 kind of go back to those days, and I do remember what it is to achieve all that
15 you achieve in the environment that you do. If my count is right, I think three of
16 you said -- or something very similar to this, limited resources and shoestring
17 budgets. I think maybe you -- you might have coordinated with each other, and I
18 think even in 2010 when we last had this particular meeting, we talked about
19 what was happening in terms of retention of folks that got us into the training
20 issue as well, and the Commission -- I appreciate your acknowledgement
21 because the Commission has been very supportive of making training
22 opportunities, training slots available, and looking, you know, to do what we can
23 to assist in that. I was interested -- had a couple of follow-ups on the training
24 issue, and as you acknowledged, we are making efforts to increase the offerings,
25 and then as a result there are more slots available to send staff, but I think you

1 mentioned a backlog that we would -- so hopefully we can be addressing some
2 of the backlog or waiting list of state employees who might be interested in some
3 of this training. Do you -- are we targeting the right courses? I know you gave
4 some course numbers, and I wasn't as familiar with that, are those the courses,
5 specifically, that we're trying to increase the offerings of?

6 DAVID WALTER: Yes, those two courses -- those two medical
7 courses are the two that are going to be doubled because of the backlog, and
8 those, along with one environmental course, are the three that are giving us the
9 biggest problems. We have -- there's an issue that allows individual states that
10 may host a training program to have more slots, but that's only for a few of the
11 courses because most of the courses are fixed in where they're located because
12 of staffing and facilities that are necessary to run the course, and so it's
13 impossible to kind of take them on the road, so to speak, and allow another state
14 to get an increased number of people into that, but that doesn't increase the
15 number of state slots overall, it just increases the number of slots available for
16 that host state. So some state's going to get knocked out because of it.

17 Yeah, I think in the future -- you know, by looking at statistics and
18 finding out the need, there may be times when instead of maybe twice a year
19 having one course, just once a year, or perhaps skip a year to give -- to allow for
20 there to be a little bit more in the budget to use towards those courses where we
21 have backlogs.

22 COMMISSIONER SVINICKI: Do you have any generalized sense
23 of any kind of post-training retention issues? Once trained, is the experience
24 with the state agencies generally that retention is good. Of course, a trained
25 employee is then more valuable, so it -- you know, it could affect the retention

1 issue. Are there any statistics on that, or do you have any general sense of once
2 trained, is retention an issue?

3 DAVID WALTER: I'm not going to say statistics because I don't
4 have statistics on it, but I can say from my own experience of over 20 years in
5 state radiation control, retention is a matter of use, and for virtually all of these
6 courses that we're using, and getting into, it's used regularly in the state
7 programs, and so yes, retention is, I'd say, very high, along with the fact that they
8 get materials that come back with them that they can use as reference that helps
9 them a great deal if there is some reason that they don't particularly use that
10 information over, say, a year or so.

11 COMMISSIONER SVINICKI: Okay, yes.

12 CHERYL ROGERS: Can I respond to that? I believe she was
13 asking about do we keep them after we train them, is that what you --

14 COMMISSIONER SVINICKI: Well, I think it -- really both aspects,
15 but either. Just is there -- you know, is it -- does it stick, you know, once trained?
16 In terms of your overall program, either that person, or I think you're indicating
17 too, they can come back with materials that are useful to other employees
18 working on the same issue, but -- so is it that, you know, there's a need
19 constantly for this training, or once you secure one of these precious slots, then,
20 you know, does that have an enduring beneficial effect?

21 CHERYL ROGERS: Well, then I would agree with David on the
22 retention of the information --

23 COMMISSIONER SVINICKI: Okay.

24 CHERYL ROGERS: -- yes. As to the retention of the individuals, I
25 might be able to answer that in a few more years because I have a very brand

1 new staff.

2 COMMISSIONER SVINICKI: Okay.

3 CHERYL ROGERS: And we are one of those states suffering
4 difficult economic times.

5 COMMISSIONER SVINICKI: Okay, and then in terms of the -- I
6 think the figure was 38 working groups also at the Commission's last meeting
7 with OAS and CRCPD there was some discussion of the number of working
8 groups, and I think from your presentations I took that you're complimentary of
9 the beneficial outcomes of having the opportunity to participate in these working
10 groups, but that's substantial, again, given limited resources and shoestring
11 budgets; I'm sure it's difficult to find the representatives to send and participate
12 actively in all of these working groups. Are there any perspectives you have are
13 the number of working groups, the right number? I know some are related to
14 rulemakings, and other things, but is there any effort or concern about a
15 proliferation of working groups?

16 CHERYL ROGERS: Well, I'll let my colleagues speak for
17 themselves, but I do think the 38 seems to be about right. You know, we had
18 good involvement on Part 37. I think a few years back you guys did question, I
19 think, that you were up to 50 or 60, and that's too many.

20 COMMISSIONER SVINICKI: Okay.

21 CHERYL ROGERS: So 38 seems to feel about right.

22 COMMISSIONER SVINICKI: Okay, did anyone else have any
23 perspectives?

24 DAVID WALTER: I think last time we came through there were --
25 this is off the top of my head -- I believe there were 42 working groups, and --

1 that we were -- that we were in part -- we were really pushing the limit at that
2 point in time. We probably have a few people who are on more than one. So
3 you know, some people, some states have the ability to allow a person to be on
4 more than one if their expertise is in that area, but we truly do try and get people
5 who have experience in the areas in which they're going to be on the working
6 group, and so far, with what we have right now, the numbers that we have, I think
7 we're doing a good job on that. I really don't think I'd want to go up any higher
8 than that though.

9 COMMISSIONER SVINICKI: Okay, thank you.

10 ALAN JACOBSON: Isn't there also some prioritization of the
11 working groups that's ongoing now that between the NRC and OAS and CRCPD
12 as to where the emphasis will be placed for the next year or two?

13 COMMISSIONER SVINICKI: Okay.

14 ALICE HAMILTON ROGERS: Yes, there is. At the spring
15 Organization of Agreement States board meeting, members of the NRC come
16 and a priority list is drawn up.

17 COMMISSIONER SVINICKI: And I was reviewing, once again, the
18 OAS CRCPD comments that had come in last year regarding coordination
19 between state and federal agencies post the events in Fukushima, and I think if
20 I'm remembering correctly, that there were identified some positive engagements
21 with -- I think it was HHS. Is there anything that you could identify immediately
22 that were things that worked well? I know, in general your comments were
23 focused on the, you know, lack of information, and some of the confusion, and
24 things that created, but were there some positive practices that were identified at
25 that time that were helpful, and was an element of that kind of existing

1 relationships and context that you might have had with that agency?

2 EARL FORDHAM: Yes, to the existing relationships, I worked --
3 being out on the west coast we saw a lot of impact almost immediately and
4 continuous for a couple months there. There was a learning curve, there was
5 exercising existing relationships with different federal agencies, both locally. We
6 found better success in getting information from our local partners than we did,
7 you know, reaching back through the formal channels. The one that kind of
8 stands out, though, is through time we developed a protocol on how the
9 environmental sampling results were released.

10 Initially they came out before the states were actually notified, and
11 thus we were really scrambling to get ahead of the media curve. It soon became
12 apparent through the various phone calls that were very quickly established on
13 either a daily or nearly every other day basis, that we asked, "Hey, give us two or
14 three hours head start on this, so we can get a frequently asked question," or you
15 know, come to phone call with an FAQ already done for this, whereas several
16 years ago the accepted means of distributing information was a fax sheet, that
17 wasn't working any more. People weren't going to our fax sheets. They wanted
18 FAQs, and so we were going to the NRC's webpage FAQs, we were going to
19 EPA's, CDC's, and we were mailing whatever we could, customizing it for the
20 statue use, and then posting it on our website. In fact, right now, we're doing the
21 same thing with NOAA and the debris that's starting to wash up ashore in
22 Washington, and specifically, more towards Alaska and British Columbia.

23 But yeah, the learning curve there was please don't forget the
24 states when you're going to go out and release something. Give us a heads up
25 so we can at least, you know, be on the same page as what -- the bad news one

1 was when we actually had a positive milk sample in Spokane, and my governor
2 called the head of -- I think it was EPA, and they were finger pointing at each
3 other as to who released this to the New York Times. That wasn't pretty at all.

4 ALICE HAMILTON ROGERS: I'd also like to build on that by
5 saying that the requirement that we do exercises at the power plants every other
6 year put us in an excellent position to be able to answer the questions about
7 what if this happened at South Texas project, what if this happened at Comanche
8 Peak, what do you, Texas, do? How are you ready, and what are you
9 monitoring? So we were very able to go ahead and answer those questions and
10 talk about how prepared we are, and how often -- how often we practice, and
11 how much time we spend being ready for the citizens of our state.

12 COMMISSIONER SVINICKI: Okay, thank you, I appreciate that,
13 and I certainly look forward, if you're willing to share, the NARR report with the
14 NRC, I think that would be very interesting, so thank you, Mr. Chairman.

15 CHAIRMAN JACZKO: Commissioner Apostolakis.

16 COMMISSIONER APOSTOLAKIS: Thank you Mr. Chairman. I
17 also join my colleagues thanking you for your presentations. My first question is
18 for Ms. Hamilton Rogers. You seem to advocate greater flexibility for the states,
19 compatibility category C. Do you see any value to B? And under what
20 circumstances should we implement Compatibility B?

21 ALICE HAMILTON ROGERS: A lot of the states want -- a lot of the
22 regulations NRC promulgates we're required to adopt either identically or really
23 close to identical, and a lot of the states would like to have the flexibility to be
24 more stringent.

25 COMMISSIONER APOSTOLAKIS: So is it the amount of

1 regulations that are under B that bothers you, or I mean --

2 ALICE HAMILTON ROGERS: Are you asking is it too much?

3 COMMISSIONER APOSTOLAKIS: Is there a benefit to B that we

4 may have a more consistent nationwide approach to regulations?

5 DAVID WALTER: Sir, if I may, I don't think that -- I think what we're

6 looking at here is in the detail, not in the broad oversight of the rule itself, and

7 what its intent is, but how do you reach that intent is where we're looking at the

8 flexibility.

9 If you look back before the 2002 Part 35 change, training and

10 experience was a compatibility delta. So you didn't even have to have it in your

11 rules. Most states, not all, but most states did either have it in their rules, or

12 wrote the exact same thing that's in the rules as a condition to the licenses.

13 There was a push to make a change for these -- and those states -- and those

14 states that did have something that was different were more restrictive, and they

15 had gotten into a position where they were being more restrictive than when the

16 new rules came around, and originally it was going to be a C, which was not a

17 problem because this is the base upon which you absolutely must meet, and

18 then you can build on from there.

19 When it came back as a B, it threw a curve into a lot of people that,

20 in this instance, meant that there were some states that ended up having to lower

21 their requirements, which they did not feel was conducive to increased health

22 and safety for the patient and the public.

23 Again, I don't think it's the overall intent of the rule that we're

24 questioning, but if you're looking at something that's going to, like transportation

25 regulations, which is going to definitely go -- stay the same, you're in the same

1 vehicle with the same packaging all the way across all jurisdictions, all states
2 whether it be an NRC state, an Agreement State, or going on to a military
3 installation, it's always going to have to stay the same. But when you get to other
4 circumstances where, as was pointed out with GLs for instance, some states
5 don't have GLs, they don't even have a GL option, and they do that because
6 accountability is a big deal, and accountability of GLs is not one of its strongest
7 suits compared to a specific license, and so they did not want to lessen the
8 responsibility and requirements because they thought that was a degradation of
9 health and safety.

10 COMMISSIONER APOSTOLAKIS: Thank you very much, that was
11 very useful. Mr. Fordham, you said something about blending, that you have
12 some problems with it, can you elaborate or...

13 EARL FORDHAM: Let me give you an example of what -- how the
14 gamma controlling isotopes typically get, you know, blended from a power plant.
15 With the local utility out in Washington, Energy Northwest, needed to clean out its
16 fuel pool, and what they did is they went through and got rid of all their control
17 rod drives, and power range instrumentation that had been sitting in the pool for
18 substantial length of time. They ran the software program, and the program
19 came through with a sum of fractions of .99; so I mean, if you slip a little there,
20 that could be in 1.01, which would have been greater than class C waste then.

21 The new BTP, you know, continues to allow blending on gamma
22 controlling and with -- under different situations, and the site and states are going
23 like, you know, these things come into the disposal sites typically in the range of
24 tens of thousands of R per hour. It's not something that I'm going to be able to
25 tell the site operator to go to -- we're going to do a package inspection on this

1 IF300 shipment. It's dose rate prohibitive, so we have to acknowledge the fact
2 that hopefully it was done properly. The RADMAN software was run properly in
3 another -- at the power plant.

4 There's some issues there that sited states have is that, you know,
5 we have no regulatory oversight in most cases for those people that are out of
6 our jurisdictional boundaries. Some sites, such as Washington, we have a site
7 use permit program where if there's a violation of the license or transportation
8 requirements, we can suspend the actual permit and thus their ability to use the
9 site, and then hopefully if it's a power plant related one, we -- you know, the NRC
10 would get notified through the region and their Office of Enforcement would take
11 over, you know, and take a look there and the resident inspectors. I happen to
12 know the resident inspectors at Energy Northwest and have known them for
13 years, but that's the concern, is that we don't have any direct -- I can't walk over
14 to my materials folks and say is, you know, hey can you go out and take a look
15 on your next inspection and verify that they're doing this right, because they sent
16 me one here that is very, very close to a greater than class C waste shipment. I
17 don't have that ability when it's outside of our state boundaries.

18 COMMISSIONER APOSTOLAKIS: Thank you. Thank you Mr.
19 Chairman.

20 CHAIRMAN JACZKO: Thank you. Commissioner Magwood.

21 COMMISSIONER MAGWOOD: Thank you, and good morning to
22 all of you, it's good to see all of you again, especially the sisters, it's always a
23 pleasure to see them.

24 [laughter]

25 I've always wanted to -- do you sing as well?

1 CHERYL ROGERS: No [laughs].

2 ALICE HAMILTON ROGERS: Only in harmony.

3 COMMISSIONER MAGWOOD: Only in harmony. Are you

4 compatible, that's the question?

5 [laughter]

6 Yeah, it was -- actually, it was interesting that I think -- I can't
7 remember, it was either Alan or David mentioned it was the anniversary of the
8 Agreement State program. Was it the 50th?

9 DAVID WALTER: The 50th anniversary of the first Agreement
10 State.

11 COMMISSIONER MAGWOOD: Went by without a great deal of
12 fanfare, I think I did hear someone in the staff mention that, but it wasn't
13 something that was really talked about a great deal, and perhaps it was a missed
14 opportunity because, you know, as I've been with the Commission the last couple
15 of years, and interact with many of you, I've often wondered about what's
16 working and what's not working overall, and I wanted to give you each a chance
17 to give me just sort of a general sense that you have about when you think about
18 the overall program at this stage of play, after all the years of practice, and after
19 having so many states join the program. What aspects of the program do you
20 think work extraordinarily well and there are areas where you think it's not
21 working, that -- where we need to really put some focus? I know one big change
22 that's happened recent years has always been the state budgets, and that's been
23 an impact which you discussed with Commissioner Svinicki, but I wondered if
24 there's anything more structural than that. I just wanted to see if there were any
25 opinions out there, as we think about this 50th anniversary. Start with -- maybe

1 start with Cheryl, and go outwards.

2 CHERYL ROGERS: Oh, thank you.

3 COMMISSIONER MAGWOOD: You looked like you wanted to say
4 something.

5 CHERYL ROGERS: Well, I think you guys should notice a pattern
6 here, because every year we come and we either beg you for training, or we
7 thank you for training. So there is a pattern, and it's just getting exacerbated now
8 because of all the people retiring. As I stated before, I have a very -- I have a
9 very good program, my staff is doing an awesome job, but they're young, and it's
10 my most senior inspector has been there, I think, eight years.

11 So it's good, I have a supervisor who's been there awhile, but that's
12 a young program. There's not a lot of that -- you know, that continuity factor that
13 we used to rely on, and I think we brought it up a little bit in regards to the NARR,
14 you know, some personal relationships surely helped that situation, but you
15 know, we're getting that feeling of getting stretched thin is tough, so the
16 education -- I guess one of the untouted benefits of going to these training
17 classes is that you do meet and interact with the people that are going to be
18 running the programs, you know, 10 years down the road.

19 So that is why we come back to that over and over again. That
20 training is just a necessary partnership that we see with the NRC. We were
21 asked a few years back could we do it ourselves, and you know, one or two
22 states, I believe, have done it themselves, but you know, from the aspect of
23 keeping the continuity factor going across the country, that's where it happens. It
24 happens in those training classes, it happens through serving on these working
25 groups, I hope you picked up that we're very pleased with how Part 37 turned

1 out. A lot of effort and energy went into that. We view the working groups -- in
2 fact, my supervisor strongly supports if any of the staff want to be on a working
3 group, he supports that. So it's not necessarily that we're -- you know, it's a little
4 bit of a hit on the program to let them out the door, but they come back with --
5 you know, knowing so much more about what's going on out there, so --

6 COMMISSIONER MAGWOOD: Training.

7 CHERYL ROGERS: So what is going well, yes, I mean, I do my
8 part on the home front to train them, but I think, you know, that is the message --
9 the overall message that we keep trying to bring, and raise your awareness
10 about is how that works -- and I think also it works for NRC, you know, that we
11 occasionally have some good ideas and find some good practices out there, and
12 we like to share them, so...

13 COMMISSIONER MAGWOOD: Maybe we should migrate this
14 way, and give AI a chance to react to that.

15 ALAN JACOBSON: I can just say the technical training program is
16 a very useful resource.

17 COMMISSIONER MAGWOOD: Yeah, I heard that somewhere.

18 ALAN JACOBSON: The states enjoy, and it's really just part of the
19 states' training program. The states have their own on the job training programs
20 too, and we enjoy the benefits of it. It provides us with NRC's expectation of us,
21 and when we have the resources, and the expectation, we can deliver a good
22 product.

23 COMMISSIONER MAGWOOD: David, what's working, what's not
24 working?

25 DAVID WALTER: I think probably if you look at the overall

1 Agreement State program, I am -- I believe, in my heart, that the Agreement
2 State programs being closer to the licensees, being able to develop a rapport
3 with our licensees, starting with the licensing process and working through where
4 they're very closely aligned with them because while we're not -- we're not
5 actually there to -- or being paid, I guess, to be consultants, we are very much
6 often are because, you know, in our state, we get calls all the time from our
7 licensees where they give us circumstances, most of which we've seen before
8 and we're able to give them some guidance as to how other places have handled
9 it that have worked, how places have tried to handle it where it hasn't worked.

10 The program itself allows also, I believe, us to make the most
11 effective use of the personnel that are available because, and I'll say this, I think,
12 during our last IMPEP, per 100 licensees they had us as just under 0.5 FTE,
13 which is lower than what is expected, and we've always been lower than what is
14 expected. That's the economy of working in a state, particularly in certain parts
15 of the country where the budgets are not going to be very big, you can't have
16 deficit spending in Alabama, so you work within the moneys that are coming in,
17 period.

18 We still maintain, I believe, an extremely good radiation safety
19 program overall with all of our licensees, and being close in, it allows you to get
20 more done with fewer people so the effectiveness is good, the training is a broad
21 scope thing -- what we get in the NRC training courses is on a high level, broad
22 scope. All the little dirty details are taken care of on the job, in that training, but I
23 think overall it's working very well.

24 Where are the downfalls? Communication between all the
25 Agreement States because sometimes, as all of us who have ever dealt with a

1 off-site emergency response drill, communication is the only means of effectively
2 running the overall response, and if you don't have that good communication,
3 you're doomed to have some failure to some extent. It may not be very large, but
4 some extent, somewhere. Our communication has gotten much better over the
5 last two decades, I'd say, but it can always stand to be better.

6 COMMISSIONER MAGWOOD: Appreciate that. Alice?

7 ALICE HAMILTON ROGERS: Well, for me I'd say it's the overall
8 framework of the radioactive materials program that NRC puts upon us. No
9 governor wants to be told that his radioactive materials program is inadequate,
10 and it's easy because we've worked together for so long to define adequacy, it's
11 easy to say what we would need to be adequate, and that helps us get the
12 resources that we need to keep our programs up to par.

13 The flip side of that, the negative side is we can't -- we can't take
14 any more unfunded work. As you guys think through new things, wouldn't it be
15 great if the Agreement States did that too. Texas' budget for this biennium for
16 the radiation control program strategy was cut 20 percent, and that's a lot, and
17 we simply can't do any more.

18 EARL FORDHAM: I'd like to start out with saying, the state
19 involvement on IMPEPs is definitely a plus, as having, I would say, graduated
20 from IMPEP teams to MRBs now, I brought back a lot of material for our, you
21 know, use prior to our IMPEP, so it was, you know, very helpful.

22 Being able to reach back to the NRC expertise and specifically on
23 technical assistance requests, we had one here recently that dealt specifically
24 with NRC involvement because out at the disposal site to the NRC controlled
25 SNM for a number of years when they were below the -- or above the limits

1 requiring an SNM license, and so we actually needed some dose determination
2 based on those years that NRC was involved, and also had them review our
3 performance assessment.

4 So the long term relationships that we got, you know, has alluded to
5 is some of those will probably be dissolving over the next, you know, five years or
6 so as people retire, but a couple back there sitting in there, Cathy and Dennis,
7 you know, we've touched bases with those a lot of times with our uranium mill
8 program, and other aspects of our state programs.

9 Some of -- one downside that I think has been brought up before is
10 -- you kind of talked about adequacy and compatibility, is there's a constraint that
11 we're trying to live within as far as compatibility. What is needed to demonstrate
12 compatibility? Not all states can turn the crank and have a regulation on the
13 book in three years. Some of them take, you know, five and 10 years and still
14 have trouble, so I mean, some -- maybe a different idea of what compatibility
15 may mean, and I know that's kind of a touchy subject, so -- but that's -- throw that
16 out into the -- up in the sky and let people, you know, cogitate on that one for a
17 while.

18 COMMISSIONER MAGWOOD: I appreciate that. I appreciate
19 really all that the states do, I know there's a lot of work out there, I think you gave
20 us the numbers early on, the number of licensees you deal with, so it's perhaps
21 sometimes unheralded, but certainly, from my perspective, it's very, very
22 important work close to the licensees, close to the public, and I appreciate all that
23 you and your staffs do. Thank you very much, thank you Chairman.

24 CHAIRMAN JACZKO: I wanted to touch on the status of where we
25 are with updating with regulations. I think when we met last there were, I think,

1 18 states that were not behind on regulations at that time. Now, I think the
2 number's closer to 15 that are a little bit behind, and it's an interesting number, I
3 think I counted 17 states that have not implemented the expanded definition of
4 byproduct material, which -- that is one I think would be a fairly straightforward
5 change. Now, I don't -- maybe Mr. Walter, Alabama's one of the states that
6 hasn't done that, so maybe you can give me a sense of what are the difficulties
7 with some of the -- you know, I can understand ones where there's more
8 complex -- you know, actual complex rule language, but when we're just talking
9 about a definition, what's the kind of the cause for the difficulty in getting that one
10 -- that one implemented?

11 DAVID WALTER: As far as I know, it was implemented in 2010 in
12 Alabama.

13 CHAIRMAN JACZKO: Okay, then maybe I have incorrect
14 information.

15 DAVID WALTER: But I can say that getting rules approved doesn't
16 necessarily mean that it's just something that's done in-house, and doesn't have
17 to get the approval and be granted grace way on up the ladder, all the way,
18 sometimes, to the state houses, and because of that, we fall victim to the time
19 line that we have no control over, so I would say that probably is going to be one
20 of the big problems.

21 CHAIRMAN JACZKO: Another one is that -- and this, I think, goes
22 back to 2007 change on exemptions from licensing and the GL requirements,
23 and it was some minor change, I think we made at that time. Again, I don't know
24 if anybody has any comments on that one is -- there's a challenge with that one,
25 or -- you know, is there something generic so we can kind of move through some

1 of these things in a more timely way, that -- I mean some of these go back -- I
2 mean we have three states, I think, that still haven't done the 2002 changes to
3 the Medical Byproduct Rule that we did in 2002, I mean that's almost 10 years
4 now for some of those changes, so what do we do to get these things done?

5 CHERYL ROGERS: It's individual -- I'll just try to get take a stab at
6 it. It's individual states. If you have any fee changes in there, that's a -- that
7 dooms your rule from the start, and we do have to put in our fee changes.

8 CHAIRMAN JACZKO: What do -- I'm sorry, what do you mean by
9 that?

10 CHERYL ROGERS: Fee -- that's how we support our programs.

11 CHAIRMAN JACZKO: So -- I'm sorry, if --

12 CHERYL ROGERS: If you put a fee change in, and it could be
13 even for X-ray, and you're trying to do your x-ray and your materials at the same
14 time, so there's one roadblock.

15 CHAIRMAN JACZKO: But we have -- all of these rules we have a
16 three year period --

17 CHERYL ROGERS: Yes, and it takes us two, if we start right
18 away.

19 CHAIRMAN JACZKO: Yeah.

20 CHERYL ROGERS: I mean, you know, I mean we sort of budget
21 for that. We're not doing anything in Wisconsin until after we know who's going
22 to be our governor [laughs].

23 CHAIRMAN JACZKO: Well, I think you all -- according to my
24 records you all are fine.

25 CHERYL ROGERS: Yeah.

1 CHAIRMAN JACZKO: I think Wisconsin's got zeroes across the
2 board, so --

3 CHERYL ROGERS: I'm an NRC -- I try, but I do know, you know,
4 that there are just -- the politics impinge. I don't think once you're started it's so
5 bad, but you know, we do have to do the public hearings, and I guess I would just
6 say, in general, if we're under a tight budget and we have a choice between
7 inspection, and licensing, and regulation, you know, we might tend to go towards
8 inspections, and then licensing, and then regulation, and so it may also be
9 reflective -- I don't know how you would find that out, might be reflective of the
10 economic climate.

11 CHAIRMAN JACZKO: Well, you know, I appreciate that. You
12 know, I think at the last meeting I asked, too, whether, you know generally, three
13 years was the right time frame, and I think got, generally, kind of a sense that
14 three years was the right time frame, and if that's something we need to look at
15 though, I think I'd be interested in looking at that because bottom line I don't think
16 it helps any of our programs if we have, you know, a number of these regulations
17 that are not -- or a number of states that have regulations that are past due,
18 which means they're past the three years, it's not -- means that they're -- you
19 know, we've made a rule change and then it's within that three year window, but
20 it's passed the three year window, and so I think those are some things that to
21 the extent we can try to come up with solutions to that, I think it helps -- it helps
22 all of us in our -- the credibility of our programs to try and address those.

23 I thought your comments, Mr. Walter, were very insightful on the
24 prostate implant brachytherapy. I think we've had a lot of challenges,
25 sometimes, because of terminology, and I've heard a lot of people talk about an

1 activity definition, and I think your analysis is spot on, that in the end, it's not just
2 the activity; it matters where you put it, which essentially means you're talking
3 about dose one way or another. I think where maybe the challenges have come
4 in is that some people hear dose and they mean a specific methodology for
5 determining dose, and that that methodology is very complicated for the prostate,
6 to the extent that I understand that, which is very limited.

7 So I hope that there may be some opportunity, as we go forward, to
8 continue to dialogue on this, and think about that idea of dose, and maybe there
9 are better ways that we can come up, essentially, with a source, a location, and
10 ways that are within, kind of, our abilities to do accurate measurements, which
11 seems to me the crux of the issue there, and as we go forward, but I agree that in
12 the end, I mean, we're about dose, we're not really about activity. I mean, that's
13 what we do, but sometimes maybe the terminology gets us caught up.

14 Mr. Fordham, I wanted to ask you a question, I'm not sure I quite
15 understood one of the things you said, and I've tried to write it down so I could
16 ask you. I think what you said is something about like if we go to a 20,000 year
17 compliance period for the Part 61, I think you said we will force sites to exceed
18 their 25 millirem. What do you mean -- I didn't quite understand what you mean
19 by that.

20 EARL FORDHAM: Most radioactivity decays over time --

21 CHAIRMAN JACZKO: Yeah.

22 EARL FORDHAM: Uranium, though, has in growth --

23 CHAIRMAN JACZKO: Right.

24 EARL FORDHAM: So you'll end up becoming -- you know, you'll
25 see your decay curve instead of doing this, will do this, so you'll end up

1 potentially -- depending on, you know, how you have your uranium inventory
2 there, you could end up seeing an ingrowth of uranium.

3 CHAIRMAN JACZKO: Why is that a -- I guess maybe I
4 misunderstood you. I think I understood you to saying that that was a reason you
5 were concerned with the 20,000 year period. Wouldn't you want to capture that if
6 you had that in growth?

7 EARL FORDHAM: Informationally, but you wouldn't want to
8 necessarily hold somebody to a model that predicts, say, 30 millirem 14,000
9 years from now. As we know, the modeling from the -- my stone ages of the
10 1970s until now, the modeling has gotten better, so --

11 CHAIRMAN JACZKO: So where would you -- I mean, where is our
12 modeling accurate then, do you think?

13 EARL FORDHAM: Well, initially in the State of Washington you
14 used 10,000 years.

15 CHAIRMAN JACZKO: Yeah, but if you did 10,000 you could
16 presumably still have some sites, I mean obviously depending on how you --

17 EARL FORDHAM: Could.

18 CHAIRMAN JACZKO: So what's -- so you're okay with 10,000, just
19 not 20?

20 EARL FORDHAM: Well, yeah, and we're not even sure about
21 10,000. It gets down to the point is how many different do you have out there,
22 you know, to play with? You limit Class A will be innocuous compared to the
23 environs in 100 years. Is 100 years long enough? We're also hearing that
24 institutional controls may go out to 300 years. I can tell you right now, you come
25 to Washington state and say institutional controls are good for 300 years; you're

1 going to have a real problem with the Hanford Advisory Board that's advising the
2 Department of Energy how to close the Hanford reservation. They don't believe
3 institutional controls are good for 30 years. You know, to go from 100 to 300,
4 you know, now --

5 CHAIRMAN JACZKO: So what do you -- what do you do with DU
6 then?

7 EARL FORDHAM: With uranium --

8 CHAIRMAN JACZKO: Or any uranium.

9 EARL FORDHAM: Any uranium, we model it, it's one of our
10 controlling radionuclides, and we've got a site limit on it now.

11 CHAIRMAN JACZKO: But what's the site limit based on?

12 EARL FORDHAM: Not exceeding 22 millirem at about 9,600 years.

13 CHAIRMAN JACZKO: Okay, so you go on to 9,600 years, so
14 you're close to 10,000.

15 EARL FORDHAM: Right, right.

16 CHAIRMAN JACZKO: Okay, okay. So you're okay, in that time
17 frame, just 10 to 20 causes you more concern.

18 EARL FORDHAM: When you get out and using depleted uranium,
19 you know, you're going to have a build up too, so you could -- and depending on
20 large quantities, I don't know how much they've got at Clive right now, but if they
21 continue -- are allowed to take it, you know, I'd like to see the modeling results
22 from that. Informationally is good, but to hold us regulatorily to that...

23 CHAIRMAN JACZKO: So you're -- so 9,600 is okay?

24 EARL FORDHAM: Well, that's --

25 CHAIRMAN JACZKO: That's what your modeling is.

1 EARL FORDHAM: We've spent a lot of time talking with NRC staff
2 on just how far we had to go out when we did our performance assessment 12
3 years ago.

4 CHAIRMAN JACZKO: But you -- and so you went out to 9,600?

5 EARL FORDHAM: We went out to 10,000 years.

6 CHAIRMAN JACZKO: To 10,000, okay. Okay, great, thanks.

7 EARL FORDHAM: I think that was influenced though, by what was
8 going on with the high level program at the time.

9 CHAIRMAN JACZKO: Just -- well, the last question I just wanted
10 to -- and I appreciate your answers there. The last question we do have the rule,
11 the Part 37 rule, and I think, I don't know, Cheryl I think maybe you made the
12 comment -- I don't remember who made the comment that it was a -- or I'm sorry,
13 it was Alan, that it was a good process, and I think I would second that. I think it
14 was a very good process, and I think the result has been a very good rule in the
15 end. And I think, maybe, Alan you talked a little bit about challenges with 274(I)
16 agreements going forward. Is that a generic issue that you see for those states
17 that have them? There's nothing that I would -- perhaps I don't understand the
18 274(I) agreements well enough to appreciate if there are states from which we
19 currently have 274(I) agreements. Do we need to redo those agreements then,
20 or is there a way to capture them if they're already in place?

21 ALAN JACOBSON: Well, they're in place -- they're in place for the
22 next round of the category I inspections and the NRC's providing some much
23 needed funding for that, but once these regulations go into -- go into effect, this
24 will be a change, and the states will be funding these inspections.

25 CHAIRMAN JACZKO: Is there no way -- would you -- there's no

1 way we can continue 274(I)? Oh, I guess because those will be totally under the
2 state jurisdiction. Got it, everybody's nodding, explaining it to me, thanks. Well, I
3 appreciate that answer, and I guess that's a function of changing how we're
4 doing it, so one of those things.

5 Well, again, I want to thank all of you for your presentations and for
6 continuing your work on our -- I think now 38 working groups, and your active
7 participation. I think it helps ensure we have a better program, and I think with
8 that, then we are adjourned. We'll take a picture, if you'd like to do that. Thank
9 you.

10 [Whereupon, the proceedings were concluded]