1	UNITED STATES OF AMERICA
2	NUCLEAR REGULATORY COMMISSION
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4	BRIEFING ON
5	IMPLEMENTATION OF THE LICENSE TERMINATION RULE
6	AND PROGRAM ON COMPLEX DECOMMISSIONING CASES
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8	PUBLIC MEETING
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10	Nuclear Regulatory Commission
11	One White Flint North
12	Rockville, Maryland
13	Thursday, July 29, 1999
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15	The Commission met in open session, pursuant to
16	notice, at 2:00 p.m., Greta J. Dicus, Chairman, presiding.
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18	COMMISSIONERS PRESENT:
19	GRETA J. DICUS, Chairman of the Commission
20	NILS J. DIAZ, Commissioner
21	EDWARD McGAFFIGAN, JR., Commissioner
22	JEFFREY S. MERRIFIELD, Commissioner
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1	STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:
2	ANNETTE L. VIETTI-COOK, Secretary of the Commission
3	STEPHEN G. BURNS, Deputy General Counsel
4	WILLIAM TRAVERS, EDO
5	CARL PAPERIELLO, Director, Office of Nuclear Material
6	Safety and Safeguards
7	JOHN GREEVES, Director, Division of Waste Management,
8	NMSS
9	CHERYL TROTTIER, Chief, Radiation Protection,
10	Environmental Risk and Waste Management Branch, RES
11	LARRY CAMPER, Chief, Decommissioning Branch, NMSS
12	ROBERT NELSON, Chief, Special Projects Section,
13	Decommissioning Branch, NMSS
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1	PROCEEDINGS
2	[2:00 p.m.]
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3	CHAIRMAN DICUS: Good afternoon. I welcome you to
4	this briefing on behalf of my fellow Commissioners.
5	Today the NRC staff will update the Commission on
6	the status of the decommissioning program and the
7	remediation of sites listed in the Site Decommissioning
8	Management Plan, otherwise known as the SDMP.

- 9 Today's briefing is the first part of a two-part story on the progress being made in implementing the new 10 11 license termination rule. The story concludes tomorrow 12 morning when the NRC staff briefs the Commission at 9:30 on 13 its performance assessment program, which covers the areas of site decommissioning, high level radioactive waste 14 15 disposal and low level radioactive waste disposal. 16 A sound and supportable performance assessment 17 capability is absolutely essential to the success of the decommissioning program and the implementation of the new 18 19 rule Today, however, the Commission looks forward to 20 hearing more about the staff's decommissioning program and 21 2.2 the cleanup of our SDMP sites. 23 I understand that copies of the briefing charts are available at the entrance to the meeting room. 2.4
- 25 I would like to also add that along with this

briefing the staff had prepared a Commission information 1 2 paper, SECY-99-035, that provided an update of the significant activities that have taken place in the area of 3 decommissioning. The staff's paper has been available on 4 5 NRC web site for several months. Would any of my colleagues like to make any 6 opening statements? 7 8 Dr. Travers, would you please proceed. MR. TRAVERS: Thank you, Chairman, and good 9 10 afternoon. As you indicated, the focus of our briefing 11 today is the status of the staff's implementation of the license termination rule with a particular focus on the 12 13 status of the remediation of sites in the site 14 decommissioning management program or plan. 15 In addition, we want to address the status of guidance development and staff initiatives for continued 16 17 decommissioning program improvement. 18 I should point out that while the Office of Nuclear Material Safety and Safeguards has the overall 19 management responsibility for this program, significant 20 21 support is also provided from the Office of Nuclear 22 Regulatory Research, from the Office of Nuclear Reactor Regulation, and the regions as well. Representatives of the 23 24 offices are here today, and as I understand it the regions 25 are observing this meeting with the Commission by video.

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1 Present with me at the table are Carl Paperiello, the Director of NMSS; John Greeves, who is going to be doing 2 most of the presentation, Director of Division of Waste 3 4 Management, NMSS; Cheryl Trottier, Chief of the Radiation Protection, Environmental Risk and Waste Management Branch. 5 in Research; Larry Camper, who is the Chief of the 6 7 Decommissioning Branch in NMSS; and Bob Nelson, who is the Section Chief of the Decommissioning Branch, NMSS. 8 Unless there are any questions, I will turn it 9 10 over to John Greeves, who is going to be doing the bulk of 11 the presentation. MR. GREEVES: Good afternoon. As the Chairman 12

13 mentioned, this is sort of in two parts. The first part of 14 the discussion is going to focus pretty much on the sites 15 that we have been working on and trying to clarify the 16 status of those. Later today I will talk about 17 implementation of the license termination rule, where we are 18 in that process, and give some details. 19 Tomorrow we will identify the tools that have been 20 developed to implement these types of activities in an area

21 we refer to as performance assessment.

22 Chairman Dicus, you asked that we try and identify 23 any policy issues as we go through these briefings. I will 24 try and do that as I walk through the presentation and also 25

give some feedback on our interaction with various

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1 stakeholders. I am going to include some of that in the 2 presentation.

[Slides shown.] 3

MR. GREEVES: The first slide is the overview

slide. I'm just going to go over the background for some of 5 the people in the audience who may not be familiar with the 6 7 program.

8 I will go over the status of the sites. There are a large number of sites that have been running through this 9 10 program. We have got some good stories to tell and we have 11 got some areas where we need to make some improvements, and 12 I will make that clear.

13 We will talk about what our strategy is in terms 14 of implementation of the license termination rule and some initiatives in improvements that we have put together and 15 16 how we are coordinating across the offices. That is very 17 important.

18 I will finish up with our forward view and

19 identify what we see as some challenges.

20 John Hickey has been the chief of this branch and 21 recently he and Larry Camper traded places. John Hickey has 22 done this briefing in the past. I will do it this time, and 23 we can look forward to Larry Camper picking it up next time. 24 The second slide is the background. I think the 25 Commissioners are pretty familiar with it. As you know, it

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- really goes back to the 1980s. Then-Congressman Synar had a 1 hearing and invited DOE, EPA, NRC and asked the hard 2
- question: Where are we in setting these standards? 3

4 Chairman Carr was part of that hearing and promised that we 5 would make strides to go forward in this process.

Some of the things that were clear in that time 6

frame was the lack of timeliness. We had a number of sites 7

8 that were out there, including Apollo, Pennsylvania, which

9 is very recognized; UNC Wood River Junction; and, for

10 example, the Chevron Polling, New York, site. Progress just 11 wasn't being made on these sites. So that was one of the 12 issues.

13 Another was the evolving radiological criteria. The staff was using guidance to evaluate these sites. We 14 had some branch technical positions addressing the uranium 15 16 and thorium issues, and we were using Reg Guide 1.86 for 17 surface contamination. These were the tools that we had available. 18

19 Financial assurance was a key issue. It was a big 20 concern for all of us. We had a number of licensees that 21 had a bankruptcy issue going on, and it really drove the 22 early process of the rulemaking.

23 Incomplete records. There were a number of sites that there were just poor records on. We went back and 24 25 looked at a number of old sites, which actually put more

sites on the list. So this was one of the drivers. 1 The last one on this sheet is the lack of 2 finality. There was not a clear standard by any of the 3 4 agencies as to what was the standard to hold the licensees to by either EPA or NRC at that time. 5 6 The agency took a plan of action to address these 7 issues. They started with the 1988 decommissioning procedures and financial assurance rule. This went part way 8 9 to addressing that issue. It clearly addressed the financial assurance issue, which was one of the glaring 10 11 issues at the time. It set a release referred to as unrestricted. It 12 did not address restricted release. Over time obviously we 13 14 have dealt with that. But that was what we had available in 15 1988. In 1990 we put in place the Site Decommissioning 16 17 Management Plan. At the time, we had on the order of 40 18 sites, and it set a priority for these difficult sites and 19 gave them high visibility within the Commission. 20 The Commission agreed to use, in an interim 21 fashion, the criteria that the staff had been working on and worked towards getting a final criteria in place. 22 23 As part of that process, in 1993 the Commission 24 put in place a recordkeeping rule to address that issue of lack of recordkeeping. At that point in time all licensees 25

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force timely cleanup.

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were responsible for keeping good records, keeping them in
 one spot, and doing a good job of being able to record the
 history. This was both for the materials and the reactor
 site. So this helped in that process.
 In 1994 the timeliness rule was put in place.
 This was also necessary. There was not a good mechanism to

With the timeliness rule put in place in 1994, it 8 set up a situation where if you wanted to stop your 9 10 operation or even if you had an area that had stopped for a period of time, it gave the staff a tool to decide that, 11 okay, you've stopped your operation in this area or this 12 13 building for 24 months; you owe us a decommissioning plan. 14 So that was a tool that was needed and was in place in 1994 and has been working effectively to move these things along. 15 16 In 1996 the reactor decommissioning rule set up a 17 process for the large reactor facilities to identify the 18 back end of that process and also requirements for interface 19 with the stakeholders. 20 The most recent one and the last one on the list

21 is the license termination rule. It was by any measure 22 probably the hardest one to work on and get in place, but 23 the Commission was successful in 1997 in getting that key 24 part to finish off the framework. 25 I will mention one of the concerns that we do bump

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into in the community with the stakeholders, and that is, is 1 2 that final? Can we count on that? I think the Commission 3 is quite aware of what the nature of those concerns are, but that is one of them that we face in meetings with 4 stakeholders. 5 6 The next page is status of sites. There are a large number of these. We have made significant progress. 7 Of the original 40-some sites, over half of those sites have 8 9 been dispositioned, and I think that is a real sign of

10 progress.

11 The number that are left. This is a little bit 12 busy. I'm going to give a little more background on each of 13 these categories.

14 We have already removed two this year and there

15 are 34 sites in various categories which I will be

16 explaining in the follow-up. The two that have already been 17 removed were Chemtron sites, one at Harvard Avenue and Bird 18 Avenue, and the Commission helped us out with that.

Actually, this set of sites is an example. It has been a long process with those sites in Ohio. There was a lot of public interaction, including the State of Ohio, in those particular sites.

23 It's a success story from my vantage point. It 24 started, the first of these interactions, with kind of a 25 site-specific advisory board. We didn't call it that back

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then. We called it a regulators group, but a lot of the 1 2 early experience the staff has in that arena of working with other stakeholders we can attribute to those two sites, and 3 the state worked very well with us. 4 5 There are 34 sites that are currently on the list. 6 You can see the summary here. As I said, I'm going to deliver each of these categories in more detail. They are 7 sort of split up into what we call a grandfathering 8 9 category, which pretty much relies on things like soil 10 concentrations and the license termination rule, which is a 11 dose-based criteria. 12 At the bottom you will see 11 sites. Those are 13 the more complicated sites, and I will finish off giving you 14 a little flavor of where we see that going. 15 COMMISSIONER MERRIFIELD: Chairman, may I ask a 16 clarifying question? CHAIRMAN DICUS: Okav. 17 18 COMMISSIONER MERRIFIELD: In the discussion of 19 these different subtopics, I am wondering if for the benefit of our audience you can explain what you mean by removal, 20 whether that means clean, whether that means we are taking 21

22 it out of the authority of the NRC and giving it to the

23 states; what decommissioning means. Is it clean or not

24 clean? That would be helpful as you explain your

25 presentation.

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1 MR. GREEVES: I will give a short presentation and 2 others can add to it. For example, when we removed a site from the SDMP 3 plan, it means we terminated the license. It doesn't mean 4 the site is at background. When you look at the action plan 5 criteria and the license termination criteria, there is a 6 margin above background that is set up in those regulations 7 8 that is allowed to be left at the site. That's a key issue 9 on any site that we get involved with. How much could you leave? You're not going to go 10 11 back to background, but how much above background would you 12 be leaving? 13 The clean answer to your original question is 14 removal means the license was terminated. It doesn't mean 15 that you can't go out there and sample and find some measure of radioactivity. 16 17 COMMISSIONER MERRIFIELD: For the sake of 18 clarifying for the audience and for me too, when you say 19 it's terminated, does that mean that activities necessary to

prepare the site for its future use have been completed? 20 MR. GREEVES: I will ask others to help me, but to 21 22 me, when it's terminated it means that the NRC regulatory 23 responsibility is over. The future activities of many of these sites is not clear. Most of these are going for 24 unrestricted use. 25 13 1 MR. BURNS: I understand it's release for 2 unrestricted use; our regulatory jurisdiction is terminated. 3 MR. GREEVES: In those cases we make the conservative assumptions of people coming back on the site, 4 and if it's feasible, setting up a farm or something like 5 6 that. If it's not, then that particular scenario may not be 7 included. 8 Have I answered your question for the moment? It 9 doesn't look like it. 10 COMMISSIONER MERRIFIELD: I can ask further 11 questions later on. 12 CHAIRMAN DICUS: Yes. Let's go forward. 13 MR. PAPERIELLO: Maybe I can help. We know what is going to happen at Chemtron, what is going to be the 14 15 future use of the land. 16 MR. GREEVES: My understanding is it will be a park. For example, at Apollo, we don't know. Apollo was 17 released for unrestricted use. It's a prime piece of real 18 19 estate. The town fathers would like to redevelop that piece of real estate. However, there is a guestion in the minds 20 21 of local people: Am I going to have a problem if I reuse 22 this site? 23 Again, it goes back to that question I mentioned 24 earlier, the finality issue. Is there someone else who may 25 come in later and look for other issues?

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CHAIRMAN DICUS: Okay. Go on. Thank you. 1 MR. GREEVES: I'm on page 5. 2 Of the two sites pending removal in 1999, for 3 example, one of them is a Pesses site. The Commission 4 5 helped us with this in terms of a decision recently to allow 6 material to go to waste control specialists. The site is cleaned up to the standard, and Region I in fact has a paper 7 developed for us to get up to the Commission to release that 8 9 site. I understand the paper is actually in my staff at the 10 present time. 11 The other one in 1999 was the Elkem Metals site. 12 We have done all that we can on that. We've got a couple of outstanding issues from the licensee which just have not 13 14 come back into us. 15 The seven sites with approved decommissioning plans. Three of those will transfer to Ohio, and these 16 17 include the BP Chemicals site, Horizons, and RMI. We talked 18 with Ohio. They understand the basis for our approved decommissioning plan, and they have told us they are going 19 20 to honor those commitments as they are passed through, which 21 we felt very good about. 2.2 We have three sites projected for removal in 2000. 23 These would include the Dow site in Michigan, Permagrain in 24 Pennsylvania, and the AAR site in Michigan. One site is projected for removal in 2002. This 25

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1 is an interesting case. This is the Parks Township site.

2 There are actually two sites there, one we refer to as the

shallow land disposal area. This particular one is the operating site where they cleaned up equipment and did other 4 activities. The site was split and was subject to a hearing 5 process. This portion of the site we expect to make 6 7 progress on in 2002. 8 The next item is what we call the paper that 9 actually I believe is due to the Commission imminently on extending the grandfathering deadline. The license 10 11 termination rule has built into it a date by which the 12 grandfathering approach would end, and it is August 20, 1999. 13 14 We have worked very hard to work these sites off. 15 In spite of those efforts, it turns out we will not be able to get all of the last few sites off the list by the 20th. 16 17 We are asking for an approach where we could extend that 18 approval process. MR. TRAVERS: Timing is everything. I just signed 19 it out this morning. So you should have it by this 20 21 afternoon. CHAIRMAN DICUS: We have it. 22 23 COMMISSIONER DIAZ: We have it. 24 Would you mind summarizing for this meeting what 25 the key components of that paper are.

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16 1 MR. GREEVES: Larry. 2 MR. CAMPER: The rule currently calls for the staff to approve the submitted plans by August 20, 1999. We 3 4 are finding for a number of reasons, such as timeliness of 5 responses from the sites and the need to have our EA EIS group review all of these packages. Time for states to 6 7 review the EAs and things of that nature has caused some 8 delavs. 9 As John pointed out, we are well along. We think 10 that most of these will be completed later this calendar 11 year. In the Commission paper we actually give you a schedule that we are managing to. 12 We recognize that despite those efforts and 13 despite the fact that we are well along in the process, 14 15 there can be unforeseen things. So we are going to ask that 16 you grant through an order an exemption for one year, to 17 August 20, 2000, for us to complete the approval work. There is a table showing you what our projected 18 19 schedule is. Although we are asking for the one year 20 exemption worst case scenario, our efforts show we will 21 complete them much faster than that. MR. TRAVERS: If I've got this right, the date as 22 it was established was established to provide an initiative 23 for the facilities to get their plans in. I think our 2.4 judgment in arguing the approval of an exemption is that we 25

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1 believe good faith has been made on their part to do just that. So it's simply a matter of extending it out to give 2 us some more time to deal with it. 3 CHAIRMAN DICUS: Thank you. 4 MR. GREEVES: The eights sites that would be 5 6 eligible under the grandfathering process include one of 7 them to transfer to Ohio. That is Northeast Ohio Sewer District. 8 Seven, as Larry Camper identified, are actually 9 10 near completion. Most of these are uranium and thorium 11 sites, including sites such as Cushing, Lake City, Molycorp,

are described in the paper that Larry just mentioned. 13 We have six sites that are under review for the 14 license termination criteria. Examples of these would be 15 two sites in Pennsylvania, Cabot in Reading and Revere, and 16 17 Safety Light. 18 As far as the schedule, one of those is projected to come off in 2000. That is the 3M site. And five of them 19 20 are projected to make a decision approving a plan in 2001. 21 This would address the Sequoyah Fuels site, which the 22 Commission has seen in the past. Another example is Waltz Mill with Westinghouse. 23 24 Westinghouse is coming up with a bit of an innovative 25 approach. They actually may stay on this site for a long 18 1 period of time, decades, and they are factoring decay time 2 into the evaluation. So the staff in the region are looking at that 3 The 11 sites that I mentioned with decommissioning 4 5 plans pending. They have an approved alternative schedule that is 6 7 different than the 24-month time frame that I addressed. 8 Implementation has been somewhat more difficult for these 11 difficult sites. They are typically the source 9 material sites. We have got some questions about an EIS 10 11 versus an EA, and will probably be back to you on that. An example is the Jefferson Proving Ground, which 12 13 contains live ordnance. It's a difficult process of sorting out how do you clean up that kind of a site and what do you 14 do with it. I expect somewhere along the line we will be 15 16 back to you and talking about that one. 17 Another one is the B&W; shallow land disposal area, 18 which receives a lot of attention. And Molycorp in Washington, Pennsylvania. We had 19 a meeting up there recently, and I believe there were 20 21 something like 300 people in attendance. MR. BURNS: We also have a request for hearing 22 that has been referred to the Board. 23 24 MR. GREEVES: These are the ones that I will be 25 addressing towards the end of the presentation. It will be 19 1 a challenge for Larry Camper and his staff to manage that schedule. We'll talk more about it. 2 3 The next site is a concept of partial 4 decommissioning plans. A number of licensees have come in and asked us can we partially treat our sites. For example, 5 Kaiser, Fansteel, and Molycorp. They are looking in some 6 7 cases for an early release, and they want to use a combination of the grandfathering criteria, and then for the 8 9 rest of the site later the license termination rule. 10 As Steve mentioned, there is a hearing request on the Molycorp site. So we have that to work with. We have 11 worked with OGC on this. The concept is one we can work 12 13 with. OGC supports the process. We are nearing completion 14 on a couple of these. This type of approval will allow these licensees 15 16 to make some progress and reduce some of the burdens on them. It will allow them to clean up part of the site first 17 and address the rest of the site later. We see that as an 18 advantage, and will keep you posted as to how that plays 19 20 out. At this point I'm going to switch gears to 21

and Watertown GSA, which is a government site. All of these

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- 22 implementation. We talked about the sites. Now we will
- 23 talk about implementing the staff requirements memorandum
- 24 that you gave us regarding the license termination rule as a
- 25 follow-up to that.

20 1 As far as initiatives and improvements, we did put out a draft guidance document. In August of last year 2 3 Research put out the Draft Guide 4006. It addresses the 4 four fundamental issues that you have to work with in the license termination rule: 5 The restricted release question. 6 7 How does ALARA work in this process? The final survey, which is very important for both 8 the materials and the reactor licensees. 9 Then dose modeling. How is the staff going to 10 11 address that? 12 Those four issues are in that document. It has 13 been out there for sometime and we are asking for comment on 14 it 15 Another sign of progress is in November of last year we put out a screening table. The regions asked us for 16 17 a tool that they can use to take care of some of the simple licenses that, say, have a single nuclide. We were able to 18 19 come up with a screening table for beta and gamma nuclides. 20 It is based on a conservative approach and it is for 21 building only, but it's an early tool that we have put into 22 our capabilities. 23 We are developing and improved dose modeling 24 approach. Tomorrow Norm Eisenberg and company will be 25 giving you a complete briefing on that. We have been 21 reducing some of the unnecessary conservatism and building 1 2 in a more realistic approach in the dose modeling 3 activities. Both Research and NMSS have been working on these 4 dose modeling assessments. This is one of the things you 5 asked us to do in your staff requirements memorandum. 6 7 As far as these models, you will hear more about 8 it tomorrow. It's basically a graded approach. Licensees 9 can actually use that table. They will not have to hire a consultant. They can choose to clean up to that level. A 10 11 lot of them can move out. 12 There is a screening level set of models that we 13 have been working with. Some licensees may choose to do that. In some cases they don't have to hire a consultant to 14 15 do that. 16 Then there is the site-specific review. I view this as kind of a graded process, depending 17 on the complexity of the site. 18 19 The standard review plan is under development. It 20 will document the staff procedures, how we intend to review these sites, and what the acceptable approaches are, and 21 22 will support the 1997 license termination review. The 23 licensees are asking to see that document. I think we are doing a good job of sharing that process with them. 24 25 We have been conducting a series of workshops. We 22

- 1 have completed four already. They were in December,
- 2 January, March, and recently one in June. We have one
- 3 scheduled August 18 and 19.

4 A focus will be the license termination plan for reactor decommissioning. A lot of guestions have been 5 raised in that arena. We felt it was worth a one-day 6 effort. We have coordinated that agenda with the 7 stakeholders. The states have been participating heavily in 8 these meetings. The licensees have provided a lot of input. 9 10 Department of Energy, EPA, NMSS, Research, and the technical 11 assistance contractors have all participated in these. It 12 has been a very successful approach. 13 We put a lot of this material up on our web site. 14 We have ten modules of the standard review plan that we put up recently that we will be getting feedback on. The one 15 that is not there is the dose modeling piece. It's the most 16

17 difficult one to bring forward. We are working on that. 18 We also put out some guidance to the regions on 19 site-specific dose modeling. We put that up on the web. We 20 transparently want the licensees to see what guidance 21 headquarters was giving to the regions.

22 We have also participated in workshops sponsored 23 by EPRI and NEI. In May I personally went to the workshop 24 at Oyster Creek. I and my staff got a lot of out it and it 25 was a good feedback loop.

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We have been coordinating, as you asked us, with
 the Advisory Committee on Nuclear Waste. They support our
 approach here and they have been giving us good feedback.
 We have enjoyed that.

5 Streamlining. Carl has made streamlining an office requirement and approach. Across all the divisions 6 7 we are putting in place a streamlined effort to licensing. 8 We have improved procedures. We have set up a 9 process where the expectation is we really would prefer not 10 even to ask questions. We would like to have a good product coming in and be able to write our evaluation. Short of 11 that, the goal is only one round of questions, not multiple 12 13 rounds of questions.

Spent Fuel Program has set a good standard for us 14 here, and we want to follow that approach. You need to know 15 16 what the schedules are. We are having the staff write their safety evaluation early. That should be the vehicle that 17 helps you ask those questions. If you have got a hole in 18 19 your safety evaluation, okay, you have a question, but if 20 you don't have a hole in your safety evaluation, maybe you don't need to ask that question. We are working on that in 21 22 all of the divisions. 23 The second item below streamlining is the pilot

24 program. We provided a paper, SECY-99-160. It actually 25 came up June 22 to the Commission to give you some feedback

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1 on how that project is going. We had a handful of licensees 2 who wanted to take the decommissioning issue into their own hands and run with it. We have five. I think now we are 3 down to three, as described in the paper. 4 5 We will inspect at the end: Did they meet the 6 committed criteria? This lowers the burden on the licensee. He doesn't need to be interacting with us, and it allows my 7 staff time to work on the more difficult sites. We found 8 9 this to be useful.

10 The last item is an integrated licensing and 11 inspection program. We are tracking the inspections on 12 these sites. We are tying the regions and headquarters 13 together. It's event driven. If something doesn't make 14 sense or there is not a lot going on, then we won't go out 15 and do that inspection.

16 Larry and his branch are responsible for working

17 with the regions on that. It does get revised as needed,

18 and there is a uniform inspection procedure that is applied 19 for decommissioning these sites.

20 MR. CAMPER: Putting it in perspective, we had 21 done 18 of 36 sites by the end of June and some more are 22 taking place in July and August.

23 MR. GREEVES: On the next page, page 10, the

- 24 Commission asked us in the past how is the concept of the
- 25 Decommissioning Board going. I believe it's going well. We

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had what I will call a rough start. Any time you start 1 something up like this there are some inefficiencies. 2 3 We have the participation by NMSS. My deputy, Joe Holonich, chairs the Board. We have representatives from 4 NRR, Research, and the regions. In fact, the regions are 5 guite interested in both these briefings. As Bill 6 mentioned, they are on the line today observing this 7 8 particular set of briefings. 9 We started out with weekly meetings. That was just too much. We have slimmed down to biweekly meetings, 10

and they seem to be much more efficient in that process.
We did a diagnostic about five months ago and took
notes on things that weren't going so well, and we cut those
out and improved upon part of the process.

A key for the Decommissioning Board is to monitor the operating plan commitments. In each meeting we ask the question: What are the near-term goals in the operating plan and how are we doing?

We address inter-office issues, commission papers,
 briefing slides. These briefing slides were provided to all
 the offices in advance. We looked for comments. The
 screening table I mentioned earlier. That one was to the

23 Board a number of times to make sure that it was a useful

24 tool for the regions.

25 Let me mention one last one, the entombment paper

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- 1 which you received recently. That cuts across NRR,
- 2 Research, NMSS. We had several briefings at the

3 Decommissioning Board on that paper.

4 The last item is just efficiency improvements. I 5 think the Board helps us facilitate the exchange across the 6 offices. We see, for example, reactor sites over time are 7 going to migrate from NRR to NMSS.

The licensees have actually expressed some concern 8 about this process: I'm used to my project manager. Who 9 10 are these new people? NRR management and NMSS management, 11 when we go out to our stakeholders we try to explain what 12 our roles are and how that changes with time, and we're going to get better with time. We are actually doing some 13 14 rotations between the offices that I think is going to help this process. NRR and NMSS are also taking the training, 15 which actually affects both of us, which I think would go a 16 17 long way towards addressing some of those concerns. 18 The last page. I sort of want to leave a flavor 19 or where we see us going. 20 We need to resolve these complex sites. I think 21 the next time we brief you a lot of these sites we talked

22 about on the front end will be behind us, for one reason or

- 23 another. The 11 sites I mentioned, the difficult sites,
- 24 they will still be with us. I've set a high expectation.
- 25 Larry Camper and I visit and talk about this. This is the

27 challenge for Larry and his branch: The 11 sites, get on 1 top of those; what is the schedule and how can we address 2 3 those? 4 In the next briefing I would expect we would lay 5 out that schedule, tell you where we were, and if there was 6 anything we needed some help on, we would mention that. The third item here is integrate the materials and 7 reactor programs. Recently you sent down a staff 8 9 requirements memorandum and asked for a coordinated report 10 next time, an annual report that is coordinated. So we would be back with NRR reporting not only on these 11 sites. 11 12 but the reactor sites also that are part of the 13 decommissioning program. 14 I think the efficiency has been improved between 15 the offices. There are some challenges. The dose modeling issue was a challenge. You are going to hear a lot about 16 that tomorrow. We actually are getting a lot of input from 17 18 the licensees and the Department of Energy in terms of 19 things like input parameters. The clearance rule. The clearance approach is 20 21 used internationally. This is a topic that frequently comes 22 up at our meetings with various stakeholders. How that goes will have an impact on what we do. 23 24 The restricted release cases. These are the most 25 difficult ones. We could expect hearings on these. They 28 require the advisory groups. Lots of those groups are 1 2 forming, by the way. In some cases they are forming with sites that don't require restricted release. The utilities 3 are enlightened in that they are actually forming these 4 5 groups for sites that are going to be cleaned up for unrestricted use. 6 It's a good mechanism for feedback to the 7 8 community. The staff and the regions have been active in 9 that process. 10 The question of an EA and an EIS on these 11 restricted release sites is going to be a challenge for us. 12 The last one, which is the recent paper you received, is on entombment. The staff recommended a 13 14 workshop. I understand it's scheduled for the middle of 15 December. We need to address the guestion I started with in 16 17 response to one of the questions Commissioner Merrifield 18 asked. How much can you leave behind? That's a key question. 19 20 Another one is greater than Class C waste. If 21 there is greater than Class C waste in the reactor, are they going to cut it out? Are they going to leave it? And where 22 23 does that leave us with the statutes that are out there? 24 These are issues that I'd like to get some more information 25 in a workshop.

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 The compacts. We need to hear from them on what

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 is their view on entombment. It's a new concept. And how

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 many reactors would be interested in doing this.

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 I'm looking forward to a workshop environment for
- 5 these types of issues with various stakeholders, and we will

7 you over time. With that, I would be happy to answer any 8 9 questions. CHAIRMAN DICUS: Thank you. Let me start with a 10 11 few. Then I would like the other Commissioners to weigh in. 12 I'm sure they have several questions, and they have sat patiently through a very nice presentation. I appreciate 13 14 that. 15 You mentioned these restricted release cases. How 16 many do you anticipate might want to come in for restricted 17 release? Do we have something of an idea of a number? 18 MR. GREEVES: We do. I think it's probably a large fraction of the 11. They are going to have trouble 19 meeting a 25 millirem unrestricted release criterion. They 20 might be able to meet 40. 21 22 Nelson or Larry, can you help me with a better 23 estimate? 24 MR. NELSON: I think it's a good estimate. It's a large fraction of the 11. In some of these cases we don't 25 30

even have the decommissioning plan in yet. Licensees are

be in a much better position to make any recommendations to

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still evaluating decommissioning options. Some of them have 2 already set up advisory panels to get input. Then they need 3 to look at what restricted use mechanisms will be necessary 4 5 for their site. If it means government ownership or control, then they need to interface with those agencies to 6 7 see whether they might be willing to do that. 8 All those factors are going to play into their decisions. We don't know, but we anticipate a good number 9 10 of them will try to go that route because of the larger 11 volumes that they have on site. CHAIRMAN DICUS: Thank you. 12 13 I want to ask a question about the decommissioning 14 pilot program. The answer to this question may be in SECY-99-160. I must confess I haven't read it yet. The 15 past month has been a little busy. 16 17 The question has to do with the viability of the 18 pilot program. Given that there were five facilities in it 19 in the first place and two of those did not participate 20 ultimately and we only had the three that did participate, 21 did we really get some useful information out of this, or is 22 it going to be that helpful to us in the long term?

23 MR. GREEVES: I would like to have the staff
24 follow me. It hasn't taken a lot of energy out of the staff
25 to do this. It was a good idea. Maybe I would like to have

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seen more than five, but you can't bring people to the table
 if they -- there is a little tentativeness out there about
 some of these things.
 I think the real answer is, we are just going to
 have to wait a little bit longer. The three that are still
 in the running, if Westinghouse and Phillips come back into

6 in the running, if Westinghouse and Phillips come back into 7 a future Commission briefing and say, you know, you saved me 8 a bunch of time, process, your staff was back out here, we 9 committed to a criteria, you inspected it at the end, that 10 has value to me.

11 You asked us to do this for the simple sites. The other licensees are watching this process. They may look at 13 this and say, I want some of that.

14 I think the jury is still out.

CHAIRMAN DICUS: Carl.

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MR. PAPERIELLO: I'd like to make an observation. 16 17 John tended to get all the big bad sites. Obviously we 18 really decommission hundreds of sites every year, the hospitals and all that. I think what the pilot does for you 19 is find where is the threshold that there needs to be prior 20 21 NRC involvement in planning the decommissioning, and where 22 because we know from experience and practice that the 23 licensee can do it, and then say, by the way, we are now 24 ready to shut down. Then we can go out. So I think it is 25 useful

32 1 CHAIRMAN DICUS: That's good. 2 One final question is on the Decommissioning Management Board. You mentioned that you made some 3 4 observations or some things that you had dropped out or 5 approved the activity of the board. I know you hired a consultant at some point. Were these consultant findings? 6 7 Were these self-assessments? Or was it a mixture? MR. GREEVES: We actually have a board for high 8 9 level waste also, which we have mentioned to you. This 10 particular consultant did a diagnostic of the high level 11 waste board. I enjoyed that process. The high level waste board was actually more 12 13 mature at the time he did the diagnostic, and I said, well, 14 we need it here too; I can't afford to be inefficient. It was the same consultant. It was a consultant 15 16 that Admin has available. The gentleman does a professional 17 job. He goes around and interviews the staff. He gives you quality feedback. We value that. We want to do some 18 19 self-diagnostics. We did that, profited from it, and we are 20 implementing as much of that as we can. 21 Have I answered? CHAIRMAN DICUS: Yes. 22 23 Commissioner Diaz.

24 COMMISSIONER DIAZ: I thank you for the very

25 thorough list of issues and characteristics. However, I

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ended up without a clear idea of what is the effectiveness 1 of the present policies of the Commission in these different 2 areas. It seems like we enumerated very well what all the 3 4 things are. Or lack of effectiveness. 5 Sometimes you guys are very, very thorough and 6 don't realize that we don't have the insight of what is in 7 Ohio or in Kentucky and that we are looking at the overall issues. I really think that we need to get the distinct 8 impression of what is the effectiveness of our policies. Do 9 10 we need to do something else? What time do we need to come 11 in? 12 We hear about complex sites and how complex they 13 are going to be. I don't know how complex is complex, what are the issues that we are going to be facing and when do we 14 15 need to face them. 16 From the policy viewpoint, it would be helpful to 17 me to get a better view of what the staff is dealing with with the stakeholders, dealing with the sites from the 18 19 policy perspective rather than from the particular issue. For example, in this case I heard several times 20 21 you have interaction with stakeholders. What is the 22 reaction of the stakeholders to our license termination 23 rule? What have they come up with? Do the people say this is okay, or no, this is not okay? 24

1 there. COMMISSIONER DIAZ: The first was a statement for 2 you to consider. Don't take it as a question. It will take 3 4 too much time. Specifically, what have our stakeholders been saying or doing regarding our license termination rule? 5 6 MR. GREEVES: The answer is mixed. I can give you 7 an example. The license termination rule involves a large 8 spectrum of things you need to be doing. Let's just talk 9 about dose modeling, which you will hear more about 10 tomorrow. 11 Some of our stakeholders were guite concerned 12 about the conservatism built into our dose modeling process. We knew it was there. We were finding the same things they 13 14 were finding. NEL, as I said, we go to workshops with them. You are going to hear more about this tomorrow. They 15 16 identified problems with the models that we are using for cesium and strontium. We identified the same models, and 17 those issues have been discussed extensively in the 18 19 workshops. 20 The states are another set of stakeholders. I 21 think they are quite happy to come into this environment, 22 because they are going to inherit a lot of these sites and 23 they are going to need to use some of the same tools. So 24 the states come to the workshops. My sense is I get a 25 better response from the states in terms of a positive 35 1 response about "thank you for putting these things into 2 place." 3 There is another set of stakeholders. They don't 4 like the rule. They want something like zero to be the 5 answer, and they come into the meetings and they express 6 that view. So it's mixed. EPA comes to the meeting and 7 explains what they are doing in modeling space. It's what I 8 called mixed. We are trying to capture the best elements of 9 10 it in the standard review plan that honor the license 11 termination rule. 12 I hope I am being clear. COMMISSIONER DIAZ: You're not. Mix is not hot, 13 14 not cold; it's somewhere in between? 15 MR. GREEVES: Yes. What I mean is, depending on 16 the stakeholder, you get a different reaction. 17 CHAIRMAN DICUS: A variety of views. MR. PAPERIELLO: If you look on it as an 18 19 optimization problem, it's an optimization of resources, financial resources to do the remediation; the dose 20 criteria, with some people wanting it all the way to zero, 21 22 and the potential for restricted release, which a lot of 23 stakeholders don't want, at least living around the site. That is why complex sites are complex sites. 24 25 There is not enough money to remove maybe 40 acres 36 1 of contaminated soil and move it to another part of the

2 United States. We would find under our rule that perhaps construction of an onsite cell of two acres that a licensee 3 proposes meets the rule for restricted release of those two 4 acres. You now go and you have a community advisory 5 6

committee. A lot of people don't want that to happen. You

7 write EIS's. People comment on those. People obviously use 8 the full recourse of the law if people are going to take 9 action that they don't want. That's why you get into 10 complex sites. At the same time, there is the issue of how

11 much money is available to remediate the sites.

We got into the SDMP program and we got into these 12 13 sites many years ago because they tended to involve source material. Many of them are people who use source material 14 15 for non-nuclear purposes, chemical purposes, metallurgical purposes. They weren't in a nuclear industry. It was done 16 17 in the 1960s, 1970s, earlier than that. A lot of soil got contaminated, and they were small businesses. There are no 18 19 financial resources to dig up many, many acres and move them 20 across the country.

21 That's the tension in this whole thing. I think 22 we created a reasonably good infrastructure now to preclude 23 it from happening in the future. In other words, we would 24 never allow somebody to get licensed and create the problem. 25 So we fixed that. We created a decommissioning criteria

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which there is not complete agreement on, but the
 implementation is still difficult.

3 It's the three things. It's financial resources, which are finite; the group of people who might decide the 4 only acceptable dose criteria is zero; and the issue of when 5 6 you are going to have to restrict a site release. These things go into making a complex site complex. 7 COMMISSIONER DIAZ: It might be worthwhile for the 8 9 Commission to receive a clear identification of where these 10 issues lie 11 MR. PAPERIELLO: Commissioner, that is exactly 12 what John promised you. I directed the staff that I needed 13 a detailed analysis of each of these sites with time lines and what has to be done and where are the resources to do 14 it, including things like the EIS, and who has to agree. 15 MR. GREEVES: One of the good things about what we 16 are doing is we are making the process more predictable. We 17 are doing this in a transparent way. The licensees know 18 19 what to expect because we are showing them up front. 20 You asked about the tough policy. There is one that comes back to me day in and day out. The rule helps. 21

The 1997 rule helps, but too often I have to go out and try and address, will it hold? Will another agency come in here behind you at some future date and undo this process? Apollo is an example of that. It's a beautiful

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1 piece of real estate sitting there, but they are afraid to 2 develop it. They don't know whether it will hold. That's the one issue. If I could stop talking 3 4 about that, I could probably get a lot more work done. 5 COMMISSIONER DIAZ: Thank you. CHAIRMAN DICUS: Commissioner McGaffigan. 6 COMMISSIONER McGAFFIGAN: I have several. Let's 7 see if I can get them done in some finite amount of time. 8 9 There is a backup slide 6 that I think refers to the 11 sites. I notice two of them are in Ohio and going to 10 11 get transferred. Three are in Pennsylvania; two in Oklahoma. That leaves very few left. All those states are 12 either about to become an Agreement State at the end of 13 August or trying to be an Agreement State fairly soon. 14 15 How do you envision the transition? I know you 16 have worked it out for Ohio. Advanced Medical Systems,

17 there is a hearing on that. I guess the whole thing is 18 going to get transferred over to Ohio. 19 I assume the Shieldalloy Metallurgical is just going to go to Ohio and you will just turn over your files. 20 21 How do you schedule your work on the Pennsylvania 22 and Oklahoma sites and work with the potential future state 23 regulator? 2.4 In the case of Ohio they adopted our rule by 25 reference with one minor exception, that if it's above 25 39 1 millirems, they are going to maintain a license; if it's a 2 restricted site above 25 millirems, they are going to maintain a license indefinitely until it can go to 3 unrestricted. We found that compatible. 4 Have you had discussions with Pennsylvania and 5 6 Oklahoma as to what their rule is going to be and how the 7 transition is going to be made? MR. GREEVES: It's my understanding in Oklahoma 8 they are asking to leave, as Carl calls them, the big bad 9 10 sites with me. COMMISSIONER McGAFFIGAN: They want to leave them 11 12 with you. MR. GREEVES: They want to leave those sites with 13 14 me. That answers part of the question. 15 I can tell you we are in dialogue with 16 Pennsylvania on all these sites. Nelson met with the 17 Pennsylvania contingent -- in fact, they are in the audience 18 -- recently on all these sites. It's my understanding they 19 are actually pushing off Nelson and company. This is not a 20 near-term thing for Pennsylvania. MR. NELSON: Their Agreement State application has 21 22 been delayed, but they are very interested in these sites. It turns out all of the Pennsylvania sites are in my 23 24 section. We met with them. Region I and I met two weeks 25 ago. We gave them a rundown and went over each one of the

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sites in great detail, both the SDMP sites and other sites 1 undergoing decommissioning, terminated license sites. 2 We plan to have an ongoing dialogue with them. 3 They have identified site coordinators for each one of our 4 5 sites and we have identified our site project managers to 6 them. It's going to be a real partnership effort here on 7 each one of these sites. We are not going to take any steps 8 without talking with them and consulting with them first. So they are going to be an active player. I think that is 9 10 going to be very helpful. 11 COMMISSIONER McGAFFIGAN: You are talking about your SDMP sites. I assume in the states that are already 12 Agreement States they have some fairly dirty sites too and 13 14 they have to deal with those sites. Is there any learning 15 that goes on back and forth between how individual states that have sites that are either going to be restricted or 16 17 complex sites handle them and how we handle them? MR. GREEVES: I can give you a partial answer. I 18 19 think the learning process is in large part done in these 20 workshops we are having. The Agreement States come to these 21 workshops. The CRCPD has a working group on cleanup. I think Deborah Baugh is the chairman of that. She is coming 22 23 to the next meeting. She wants to sit in with me and go

24 over the status of these issues.

25 When

When they come to the meetings they share their

technology with us. Recently New Jersey sent their document 1 2 in. We could learn something from that process. They are not an Agreement State, but we can learn from the states. 3 So they have been heavily participating in this 4 5 type of work. They participate in the ISCORS format. I can't tell you that they sit down with me once a year and go 6 7 over their -- they do not have an SDMP program, but we do not sit down and meet and go over --8 9 COMMISSIONER McGAFFIGAN: Is it fair to say that in the states that are Agreement States there are sites like 10 these that they have to deal with on a state-by-state basis? 11 MR. GREEVES: Some of them went to Massachusetts 12

13 and some will go to Ohio. So yes is an answer. I'm less

14 familiar with the ones that originated in an Agreement 15 State, and they have not given me a call.

15 State, and they have not given me a call.
16 Nelson, have you gotten any calls?

17 MR. NELSON: No.

18 COMMISSIONER MERRIFIELD: If I could follow up on 19 your question. Do we keep track of how the states are doing 20 with these sites that we have transferred?

21 MR. NELSON: Not specifically in that we have an 22 after-transfer tracking system. We do look at their overall 23 decommissioning program as part of the IMPEP review. We do 24 look at their program. We don't specifically keep a log or 25 track specific sites that we have transferred.

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1 CHAIRMAN DICUS: Carl, could you follow up on that 2 with the IMPEP reviews? 3 MR. PAPERIELLO: I will follow up the state programs to find out. I don't know what they do. We'll 4 5 find out. MR. GREEVES: The state programs ask me to 6 participate in the IMPEP review. If they have an active 7 cleanup program like this, then we would send one of our 8 experienced people out on that review. We just haven't had 9 a lot of visibility of it yet. 10 COMMISSIONER McGAFFIGAN: Let me ask a similar 11 12 question. You were talking earlier about EPA and DOE coming to your workshops. Do we go to theirs? DOE and EPA are 13 14 dealing with the dirtiest sites in the nation, namely, the 15 DOE facilities, and trying to figure out how to deal with 16 restricted release and institutional controls. DOE 17 documents use the term "controls in perpetuity" with regard 18 to Savannah River. So I imagine that there will be some real learning we could do. 19 20 In Denver, I think John mentioned in passing we 21 were involved in commenting on some sort of EPA is trying to 22 work with the radium site there. 23 There is a lot of learning we could do as to how 24 EPA applies its dose modeling dealing with these complex DOE

25 sites and whether if we did a sanity check with our dose

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1 modeling we would get the same answer. Is that happening? They are coming to our 2 meetings. Are we going to theirs? 3 MR. GREEVES: Let me give you a little bit of an 4 answer. One, EPA and DOE are on the ISCORS format. So Andy 5 Wallow comes to our ISCORS meetings and frequently we talk 6 7 about dose modeling issues and he brings the DOE experience. In fact, I wrote him a letter not too long ago and told him 8

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9 that we were aware that the department had some information regarding resuspension factors and we would like to use 10 11 that. We use that avenue through ISCORS. 12 On occasion we go go these meetings that DOE has. 13 In fact, ANS is sponsoring a decommissioning meeting in 14 Knoxville in September. I was asked to be a plenary speaker 15 for that meeting, but all the other speakers are DOE program people. That is mostly a DOE industry type meeting. 16 17 They recognize it's the same contractors doing the 18 work. They are doing the work for the Department of Energy 19 and they are doing the work for the commercial sector. So 20 they very much wanted an NRC presence in this meeting. 21 COMMISSIONER McGAFFIGAN: It strikes me that even perhaps a lower level of detail would be interesting to know 22 about if you had the time and the resources, namely, how do 23 they apply at an individual complex site their criteria, 24

25 their rules?

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I believe almost every time you give up an SDMP 1 2 site you get a friendly letter from our friends at EPA saying, well, how would it stack up against the license 3 4 termination rule, and what sort of modeling have you done if it is one of these grandfathered sites? I assume you answer 5 that in the same friendly way and provide them the 6 7 information. 8 We might want to be asking the same sort of 9 questions just to educate ourselves; rather than having 10 theoretical discussions at workshops about suspension 11 parameters, how is this applied in fact downtown Denver, at 12 Rocky Flats, or at Hanford or at Savannah River, or 13 whatever, just to be sure we understand it? 14 Again, on this line of questions, this gets even worse in terms of resources, probably. I know the Chairman 15 has been at international meetings. I keep reading in 16 17 Nucleonics Week and other publications that the British are decommissioning sites. They have the same Cold War era 18 facilities that we did. They were involved in the Manhattan 19 20 project and all the ensuing stuff. I'm sure we are ahead of 21 them in terms of this sort of transparent public process 22 with models and everything, but do they have anything to 23 offer us? I know the French are doing the same thing. MR. GREEVES: They are all a little bit different. 24 25 You got the answer back from the UK that said they don't

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have a standard. What they do is start cleaning facilities 1 up. I saw the answer you got. I'd love to ask them, how do 2 you price this out? If you don't know what you can leave 3 behind, how do you price it out? 4 COMMISSIONER McGAFFIGAN: For the audience, what 5 6 Mr. Greeves is referring to is a letter that we sent to the 7 UK when we were trying to decide on what the West Valley criteria were because they were also decommissioning a 8 reprocessing plant at Dounreay. I could put that letter in 9 10 the public domain as an attachment to the meeting notes. MR. GREEVES: What we saw in Rome in the meeting 11 12 the Chairman attended was lots of the Europeans are cleaning 13 up what sounds like a clearance criteria. They are just cleaning up concrete rubble. They use the same word. It 14 might be a different language. They clean the concrete up 15 and then they send it to a landfill. Another country 16 doesn't allow disposal of concrete in a landfill. So they 17

18 do something else. But they are all doing something a

19 little bit different.

20 The Japanese have a clearance criteria and they

21 have a reuse criteria. They have three criteria. I can't

22 quite remember what they all were, but the first one is

23 reuse. If we clean up a reactor site, it should be reused

24 for another reactor. That is one of their criteria.

25 COMMISSIONER McGAFFIGAN: That must not be a very

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1	high criteria if it's going to used as a reactor site.
2	MR. GREEVES: In Japan it might be.
3	CHAIRMAN DICUS: Carl.
4	MR. PAPERIELLO: I want to make an observation.
5	Actually, it is going to kind form the basis for the
6	presentation I give to the international meeting after
7	Thanksgiving. This is not a textbook process. We talk
8	about realistic modeling. There are no textbooks that deal
9	with realistic modeling. They deal with screening. What
10	little bit is written is introduction to.
11	I think the staff here at the NRC and we are
12	working with DOE; we are working to a lesser extent with EPA
13	are writing the textbooks. I told the Commission
14	sometime ago when I looked at the medical area, it was an
15	area for which there are textbooks. You can find AAPM
16	standards, all kinds of standards on how you run a nuclear
17	medicine department.
18	There really are no standards and no textbooks on
19	how we're helping develop it; DOE has done some you
20	model a site to calculate the dose in compliance with the
21	dose criteria. We have been developing survey methods,
22	analytical methods and modeling. We are on the frontier
23	here.
24	I think we have got a lot to learn from people,
25	but I think we also are actually teaching a lot of people.
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I wish it was simpler. It's not like we just set a limit and then somebody opens up an engineering manual and the manual tells you how you quantitatively get there. I've done a lot of literature searching. I've looked at the EPA web site on chemical modeling. I'm convinced we are writing the book. COMMISSIONER McGAFFIGAN: If I can get two more in here. COMMISSIONER MERRIFIELD: It makes me perhaps wonder whether we should institute a time clock here.

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11 COMMISSIONER McGAFFIGAN: I'd be happy to wait for 12 a second round.

13 CHAIRMAN DICUS: We will have time for a second 14 round.

COMMISSIONER MERRIFIELD: I have two quick ones.
 You mentioned that there are some sites at which there are
 site-specific advisory boards. That is not the case at all

18 of these complex sites?

MR. GREEVES: It would be the case at any site for
 restricted release. The rule requires that. The point I
 was making was that most of the utilities are going to

22 unrestricted release. They form these boards for purposes 23 of communication.

24 COMMISSIONER MERRIFIELD: We don't require it at 25 all of the complex sites?

1 MR. GREEVES: If it's a complex site that is 2 asking for a restricted release, the rule requires it. COMMISSIONER MERRIFIELD: The answer to the 3 question is, no, we don't require it at all the sites. 4 MR. GREEVES: Right. 5 6 COMMISSIONER MERRIFIELD: In an analogous 7 situation, I used to deal with Superfund. All of the sites have boards irrespective of whether the end point is 8 9 unrestricted release. I don't know if you have ever 10 considered doing that. There are many stakeholders who 11 notwithstanding the fact that the site will be cleaned up 12 their concerns are how you clean it up and the impact on the 13 community. I am wondering if any consideration has been given to that. 14 15 MR. PAPERIELLO: I had a conversation with the EPA 16 Superfund people on that. The point is, though, not all the 17 chemical decommissionings are Superfund decommissionings. A Superfund decommissioning is a very unique decommissioning. 18 19 EPA doesn't look for them; they are brought to the EPA's attention. The reason why they have a site advisory board 20 21 is that in part the decommissioning criteria are somewhat 22 nebulous. 23 I'm giving you my perception from the interactions

24 I had with Maine Yankee in Region I. So I probably know

25 enough just to be dangerous. They do it, but it's for a

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different reason. I mentioned earlier we do lots of
 decommissionings. Somewhere along the line we would have to
 define a threshold for having a site advisory board. We did
 do it in the rule when it was restricted release. That was
 the decision that was made in the past. I think we need to
 remember that we have a lot of small licensees who
 decommission.

8 COMMISSIONER MERRIFIELD: I think the analogous 9 situation is with Superfund and RCRA. EPA has under its jurisdiction thousands of RCRA sites, a portion of those 10 scoring high enough on the hazardous ranking system, having 11 12 the right score for Superfund. There are approximately 13 1,400 of those. So Superfund is a much smaller subset than 14 10,000 RCRA sites. 15 I guess that creates a follow-up question. How do

16 we make a distinction between the sites that aren't complex? 17 How do we decide what is complex and what is not? How do 18 sites come on this list?

19 MR. GREEVES: It is a bit of history. The 20 February paper we kind of got at a crossroads. We said 21 we've got several criteria about how you get on the list. 22 Now that the decommissioning rule came into place there was 23 this criteria for restricted release which didn't exist back 24 in the early 1990s. So we said we've added that to the 25 criteria. If a licensee asks for restricted release, it

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1 goes on the list automatically.

2 The other criteria, if memory serves me, were
3 bankruptcy, if we have a site that is bankrupt; if we have a
4 site that has significant groundwater or soil contamination.
5 There are a couple of others. Maybe Nelson would be able to
6 help me. It is pretty significant. You have to have large
7 volumes of material.
8 Restricted is automatic. Today, if I get an

9 application for restricted release, then next year you would

- 10 see that site. It doesn't mean that it's a particular
- 11 problem, but it's worthy of a lot more attention.
- 12 I think there are some 11 sites that aren't on
- 13 this list that are pretty significant to me that we actually
- 14 have a contractor looking at. The gradation is better
- 15 explained in the previous paper. It was the year-ago paper
- 16 where we defined what criteria it was for going on the list.
- 17 It included at least those three factors: restricted
- 18 release, soil contamination, groundwater contamination,
- 19 bankruptcy. I can probably do a better job later.
- 20 COMMISSIONER MERRIFIELD: Perhaps you can provide 21 that to us later on.
- 22 Again, harking back to my prior experience before
- 23 I came to the Commission, I am on the public record as
- 24 criticizing EPA on a number of scores on Superfund and RCRA.
- 25 I think one of the things that they do well in that program

1 is keep track and have a good means of explaining where they are in the program, how many RCRA sites they have, how many 2 Superfund sites they have, where they are in the pipeline of 3 cleaning up the Superfund sites, those sites which have been 4 5 identified and they have initiated the studies as to whether they are contaminated, whether they are currently conducting 6 remedial action, whether they made a record decision, 7 whether the site has been cleaned up or whether it requires 8 9 institutional controls. They can make a presentation, and 10 do frequently, to Congress as to where they are in the 11 pipeline; of that 1,400 sites, how many of them fit each one 12 of the boxes. 13 I don't mean this as a criticism because I think 14 the staff probably in your heads and in your file cabinets have a very good idea where all this stands. My concern is 15 16 that the information that has been provided to us today doesn't give me a very good idea of where we are in terms of 17 the cleanup of these sites. 18 19 A couple of reasons for that, I think. One of them is some of the terminology that we use. We refer to 20 21 some of these sites as the license being terminated. If you

22 say to a member of the public, well, we terminated three

- 23 licenses this year, they sort of scratch their head and say,
- 24 well, what does that mean? Is it clean or is it not clean?
- 25 Is it open for unrestricted use or not? Are there

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2 The other thing EPA does is they do a good 3 narrative job of having explanatory materials for any given 4 region. You have a little booklet and you can go in and it 5 will give you all the details on an individual site and 6 where it is and where they have been and the milestones. I

institutional controls or not?

- 7 don't know whether we have that kind of information. If we
- 8 do, I am hoping you can share it with me and the other 9 members of the Commission.
- If we had another congressional committee who 10 11 wanted us to come up and give an explanation about where we 12 are in the pipeline, how many sites are cleaned up, how many are going to be cleaned up relatively soon, and the time 13 14 line for each of these 34 sites, based on at least the information here I don't think I'd be very comfortable going 15 before Congress and trying to explain that. 16 Don't take this as a criticism. I think the staff 17 18 has it all in their heads and has it all in their file
- 19 cabinets. Just having it in a form which is useful for the

- 20 Commission to understand and be able to explain to the
- 21 public, this doesn't convince me you have it.
- 22 MR. PAPERIELLO: I agree with you 100 percent, and
- 23 we are going to get it. That was my reaction from
- 24 discussions I've had with the staff over the past couple of
- 25 months, that we need to have a good picture where every site

1 lives; there are going to be obstacles, and we need to tell 2 you where the obstacles are going to be. COMMISSIONER MERRIFIELD: In point of fairness to 3 Carl, he and I had an earlier discussion on related issues 4 with some of the mining sites we have. I think we have the 5 same set of issues. Carl did commit to that earlier, and I 6 appreciate the fact that you recognize it here as well. I 7 8 think that is very positive. 9 I have some more questions, but I am going to limit myself to this round and am willing to pass on to my 10 11 colleagues. COMMISSIONER DIAZ: It just struck me that you 12 13 keep saying when you talk with stakeholders there is a group that says zero is what we want. Does EPA defend you in that 14 15 case and say, no, we would like to see 15? MR. GREEVES: I think they visibly present their 16 17 view in the meetings. What we have all heard them say is 25 is not adequate and use 15. So I think that whole statement 18 19 is they are not looking for zero; they are looking for 15. However, anybody who really understands the process and 20 21 examines things like the MCLs, their standards for coal 22 piles -- I don't want to get Carl started -- everybody knows 23 that 15 is probably in the middle of the numbers that they 24 really use.

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COMMISSIONER DIAZ: But it's not zero.

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1 MR. GREEVES: It's not zero. COMMISSIONER MERRIFIELD: Commissioner, if I may 2 jump in for a second. EPA is different than this Commission 3 in a lot of ways. One of the ways in which they are 4 5 different, and it is significant for me from a cleanup standpoint, is their regional structure. 6 7 In this agency we have a very strong consistency 8 between our regions and a very high level of coordination 9 and control between our headquarters here in Rockville and our offices out in the regions. 10 11 EPA is not the same way. The regions within EPA have an enormous degree of variability in terms of how they 12 13 conduct these cleanups. Having traveled to a number of 14 regions and looked at over 50 Superfund sites nationwide, I will tell you that -- and there may be some impact in terms 15 of our dealings with EPA -- the kind of clean up that 16 17 individual companies will have dealing with EPA can vary 18 enormously. I'm not going to point out which ones, but some regions are very inflexible. The numbers are the numbers 19 20 and that's it. Other regions are very flexible. You can 21 have in EPA two virtually identical sites that are treated dramatically different. 22 23 I think this agency has done a lot better job of 24 that in coordinating and should be complimented for that

25 reason. This creates problems for our staff, because the

might be very different than the reactions we have with EPA 2 Region V or EPA Region VIII. 3 MR. GREEVES: EPA doesn't say zero. The 4 5 Commission asked us to work with EPA on the mixed waste proposal, which we are doing, and I think that could be a 6 win-win. We are working together on that. That's not zero. 7 They are also working internationally on a clearance 8 criteria. That's not zero. That's transparent. 9 10 COMMISSIONER DIAZ: That was my point. 11 MR. GREEVES: When the hard questions come, we 12 don't tend to rescue each other. COMMISSIONER DIAZ: The bottom line is the zero 13 point is not realistic and all the federal agencies realize 14 15 it. At least there is an understanding that there has to be 16 some realistic numbers that are used. 17 We keep talking about the complexities in the 18 modeling. Since I've been here I've been hearing about the 19 complexities. I guess the staff is getting ready to put 20 some hands around the complexities of the modeling and will 21 give us an idea of how large the uncertainties are. In 22 other words, you don't have the answers but you know where 23 the answers should lie in an envelope that you can work 24 with. 25 MR. PAPERIELLO: We are going to be discussing 56 1 that tomorrow in the performance assessment. COMMISSIONER DIAZ: Thank you. 2 3 CHAIRMAN DICUS: Commissioner McGaffigan. COMMISSIONER McGAFFIGAN: You keep mentioning 4 5 finality, and obviously we have a position on finality. You 6 mentioned the Apollo site a couple times. It was before my 7 time on the Commission, but we spent a lot of money, thanks 8 to the Congress, cleaning up that site. Or the taxpayers and the licensee did. 9 How clean is the site? Why would there be any 10 question about finality there? I know that was done under 11 the old criteria, the reg guides, but can you guesstimate 12 how clean the site would be using millirems to average 13 14 member of a critical group per year?

15 MR. GREEVES: I don't want to speculate in the 16 middle of it being done. We moved a lot of stuff. We 17 actually moved more than the criteria. On and off I worked 18 on that site for a decade. I had a number of different jobs 19 and I kept cycling back to it. The criteria there was 30 20 picocuries per gram.

I talked to Envirocare, the site that was
 receiving the material removed, and they said it's averaging
 15. They were cleaning up more than 30. So what was left
 was probably considerably under 30. The site is not
 occupied. The last time I was up there it was kind of a

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green field, a park. When it gets reoccupied, which I'd 1 like to see in the interest of the country, it will probably 2 be an industrial area or something like that where people 3 4 will move in and out. Any dose would be quite low. I don't want to go much further. It is under a 5 bit of cloud. 6 COMMISSIONER McGAFFIGAN: We have this big dispute 7 with EPA we talked about at the congressional hearing, but 8 how do you on an individual site get everybody to promise 9 10 it's clean enough and we are not going to come in and invoke

11 some additional authority and you can, town fathers,

12 redevelop the site? If I'm a town father in Pennsylvania,

13 knowing that there is this big national issue and they are

14 not running very fast to solve it, how do I get my local

- 15 issue resolved?
- 16 MR. GREEVES: Either EPA should put out their

17 general applicable standard or back off, in my view.

18 COMMISSIONER McGAFFIGAN: The financial assurance 19 issue. You mentioned that a long time ago we put out this

20 financial assurance rule. How well has it performed?
21 We have these folks who are bankrupt or we have

21 We have these folks who are bankrupt or we have

22 these folks whose sureties turn out to be inadequate.

23 Have we taken another look given the experience we

- 24 have had over the last decade with the actual cost of
- 25 cleanups and said what the size of the financial assurance

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1 needs to be? Have we thought about going back and imposing whatever the results of that study -- we may be too high for 2 some classes of licensees; we may be too low for others. Is 3 there work to be done in that area? 4 MR. GREEVES: I can't give you a good answer. We 5 have experience. First, I would like to say it has been a 6 7 great asset to put that in there, because it gets everybody's attention. They know up front financial 8 assurance is important. I like it in the rule. 9 10 Is \$750,000 the right --11 COMMISSIONER McGAFFIGAN: Is that what it says, 12 \$750,000? 13 MR. GREEVES: Depending on your facility. It's a 14 graded approach. For the fuel fabrications facilities, I 15 think the first measure was like \$750,000. That only lasted 16 a while, until you did a decommissioning plan. Of course 17 most of them at that point went up; \$750,000 was too low for, say, a fuel fabrication facility. 18 19 If the number is too high, you can come in with a 20 decommissioning plan. We will do a customized review, and if \$750,000 is the wrong number, then you do a plan. We 21 review it. If it's \$500,000, we drop it down. 22 23 I think it's working. I will take a note to go 24 back and see if there is more work to do in that area in

terms of refining the numbers.

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1 COMMISSIONER McGAFFIGAN: I didn't know what the 2 numbers were in the rule because I haven't looked at it. It 3 strikes me the numbers we deal with on these complex sites are in the millions or sometimes tens of millions. Being 4 able to recognize up front what is likely to be a complex 5 site, maybe we can't. Maybe it's the practices that were 6 conducted at the site. Somewhat more financial assurance 7 would have been useful for some of these sites. 8 9 COMMISSIONER DIAZ: I think we see the value of 10 each one of Commissioners looking at a different thing. The specific questions of Chairman Dicus, Commissioner 11 12 Merrifield, and Commissioner McGaffigan is part of what I said the first time. We need to get some information that 13 is specific. That will certainly make the briefing much 14 15 more complete for us. I think it is an important thing for 16 us to have. COMMISSIONER MERRIFIELD: I agree. 17 18 MR. NELSON: One thing I might say about the

19 financial assurance without getting too far out of my box is

20 the \$750,000 was in a sense a figure, a marker put on the

- 21 table. In a sense, one might say it is a grandfather or
- 22 grandmother provision. It has had problems. The ANS case,
- 23 Commissioner McGaffigan, you mentioned. That is the
- 24 touchstone. The issues in that case relate to the
- 25 decommissioning assurance.

1 What was supposed to happen is a realistic 2 estimate is supposed to be made with the decommissioning plan. The problem, I think, is this transition period from 3 4 getting beyond the \$750,000 to the realistic estimates. Then you are falling in a number of places, as I understand 5 6 it. 7 COMMISSIONER McGAFFIGAN: If you are Westinghouse 8 it's no big deal at that point if you need \$7 million 9 instead of \$750,000. If that was the sole business, you are 10 bankrupt. We consistently run into, for some of these 11 complex sites, less than adequate resources at the end. I 12 don't know how predictable it would be. 13 MR. PAPERIELLO: That's what I meant by 14 prospective and retrospective. For people we licensed after the rule went into effect. I think we are in reasonably good 15 shape. The problem is when the rule went into effect, 16 17 immediately money had to be on the table. Then with the renewal they were supposed to follow the details of the 18 rule. You come up with a decommissioning plan and price it 19 20 out and then make sure you can pay for it. 21 What you have is these complex sites are sites 22 that were already bankrupt or out of business when the rule 23 went into effect, and then we had a number of people who are in business put up the \$750,000. But once they did the 24 25 actual detailed plan and looked at the money, the money was

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enormous compared to the value of their business. That's 1 why I say the retrospective is where you tend to have the 2 problems. I think prospectively we are in pretty decent 3 4 shape. CHAIRMAN DICUS: Commissioner Merrifield. 5 6 COMMISSIONER McGAFFIGAN: Could I ask one more? 7 It's almost more a procedural point. We have mentioned a couple of papers today. 8 On July 9 we had the stakeholder meeting and we 9 10 have gotten the summary of it. I went to part of it. 11 People talked about how we could do our business better. 12 One of the points the stakeholders made from both industry 13 and the public interest groups is when we have meetings to make sure there are adequate papers and all the papers 14 discussed are available. We have mentioned a couple today, 15 16 one of which we just got, and the other of which is an 17 information paper that within days will wend its way to the 18 PDR on the option of entombment. 19 I think we probably would have been better off to have made those publicly available even it was just coming 20 21 to us today so that we don't get the criticism that we are 22 talking about papers that we are not making available to the public. 23 Of the four papers we discussed today, two are 24 25 available, one of which was quite sometime ago. These two

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- 1 are going to be available soon, but I think just
- 2 procedurally we would be better off if they were available

3 to the public.

4 CHAIRMAN DICUS: They will be available to the 5 public, both of them. Commissioner Merrifield. 6 COMMISSIONER MERRIFIELD: A couple of quick 7 things. I will try to wrap this up. Commissioner 8 McGaffigan made some points relative to brownfields. We 9 talked about the Apollo site. The issue of brownfields and 10 providing an ability to get sites that are utilized back 11 12 into economic commerce is one which is very attractive to 13 Congress right now. 14 If we haven't already, and perhaps we have, 15 perhaps we should consider and have our counsel consider an 16 appropriate legislative package that may provide us with some authority to provide the legal assurances necessary to 17 help some of these brownfields move forward. It has been an 18 important priority of the Clinton Administration. Congress, 19 both sides, Republican and Democrat, agree with it as well. 20 21 If there is an area there where we need to look at cases 22 such as Apollo, I think we should certainly consider it.

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 The second point I would make is on the state

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 sites I did ask the question: Do we keep track of the sites

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 which we formerly had responsibility for and have been

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1 turned over the states? To be honest, I think if we were to 2 go up before Congress and were to be asked the questions, 3 what's going on with those sites, an answer of, "well, we are not really sure" isn't the right answer for Congress. 4 5 I would urge the Chairman to instruct the staff to 6 perhaps think about going back and getting that information 7 so that we can have a better analysis of how the state 8 cleanup programs are doing as it relates to state 9 authorization. A guick guestion on resources. At those sites 10 11 where the companies are either bankrupt and insolvent or 12 where there are insufficient resources to clean up, do we have a mechanism to obtain the money necessary to do what we 13

14 feel is necessary to protect public health and the

15 environment?

16 MR. GREEVES: The only mechanism that I have 17 available to me is the funds that are provided. I know of 18 no vehicle. Maybe OGC can help me. We did the issues paper 19 sometime ago. If we get to the end of the road and there 20 are no funds and there is work to be done, I don't know what 21 the mechanism is.

22 Help me out, Steve.

23 MR. BURNS: I think the answer is no. The staff
 24 does have a process in which they identify contacts in our
 25 office to go through the bankruptcy process. Atlas is one

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1 of the higher profile, more recent examples. What we do 2 from a governmental standpoint is we try to push to the front of the line and assert that we have an administrative 3 claim in terms of environmental protection that requires 4 5 payment out of the bankrupt estate before other claims and other creditors are satisfied. 6 7 We don't have funds. I think we don't have 8 current legislative authority for a fund that we would expend and we do not ourselves undertake the cleanup effort. 9 10 for example, on a contractor basis. Again, using the Atlas 11 example, one of the conceptions there is that you would create a trust to which the funds from the estate would roll 12

- 13 into the trust and then the trustee on behalf of the trust
- 14 would be the regulated entity that would carry it out. That
- 15 is the model under our current framework.
- 16 COMMISSIONER MERRIFIELD: As the staff under
- 17 Carl's direction puts together a better analysis of where we
- 18 are in the process, I would urge the Chairman to perhaps
- 19 instruct the staff to think about how we are going to deal
- 20 with these sites. It may very well be we are going to have
- 21 some number of sites that there are no financial resources
- 22 but activities should be undertaken to protect public health 23 and the environment.
- 24 We may need to seek assistance from Congress, a 25 special appropriation perhaps, directing, for example, the

1 Army Corps of Engineers to take responsibility and to clean 2 up those sites, to get them completed. I think we need to 3 think where we are going to be when we get to that point. I make that for the consideration of the Chairman. 4 MR. BURNS: The one other thing I would add is 5 that we speak to sister agencies like DOE or EPA. For 6 7 example, in the Superfund area some of our sites probably don't score very high. 8 9 CHAIRMAN DICUS: Carl. MR. PAPERIELLO: We do have a bankruptcy 10 11 procedure. 12 MR. BURNS: Right. MR. PAPERIELLO: Most of the time it's used for 13 14 material licensees like radiographers and well loggers that 15 have fairly hot sealed sources. It has been effective. We get on top of it. Somebody has picked up the sources. DOE 16 17 has taken sources; sometimes the states have taken sources or arranged for another licensee to take the sources. Where 18 19 there are acute problems we have always had a way to deal 20 with it. 21 Generally, when you have the kind of issues we

- have here with diffuse source material you don't have an acute hazard. It does not score on a Superfund. Up to now there has been enough money around to have custodial care.
- 25 Maybe not remediate the site, but at least to have custodial

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1 care to make sure people don't go on the site. 2 COMMISSIONER MERRIFIELD: I think as we move towards closing out these issues we may want to think about 3 4 that 5 My last quick question. Today is the 29th of July. August 20 is the original deadline for the licensees 6 to meet the requirements under the license termination rule. 7 8 One could argue that it is somewhat late in the process to 9 be asking the Commission to extend that date for an 10 additional year. I am wondering why the timing given the 11 fact that there is so much left seemingly to accomplish. MR. CAMPER: The commitment for the licensees, the 12 13 sites, was the 20th a year ago. The 20 August time line is for the staff. For some of the reasons I went through, a 14 15 lot of good faith effort has been made and we are well along the way. When you see the Commission paper, it contains a 16 17 table that will give you the dates that we are working toward. Many of them will be brought to closure in this 18 calendar year or in the first quarter of the next calendar 19 20 vear.

- 21 For such reasons as coordination of EA reviews

- 23 NMSS to review these, the quality and the timing of
- 24 responses from the licensees or sites, those kinds of things
- 25 have led to some delay.

67 1 While we believe that we will get these sites 2 completed according to the schedule we are presenting to you, we also know that there will be times when something 3 4 just might go awry; we will just not be able to meet that 5 date. So we are saying as a backdrop, as a safeguard, we 6 want to extend and provide an exemption with the one year, 7 but it's really affecting the date that we have. COMMISSIONER McGAFFIGAN: As I understand, we are 8 not going to allow additional people to come in the door; 9 their day was a year ago, August 20, 1998. It's our review 10 period for what they sent in by August 20, 1998. 11 12 COMMISSIONER MERRIFIELD: Let me rephrase the 13 question a little differently. I wasn't as articulate as I 14 should have been. 15 At what point did we realize we internally weren't going to meet this date? If we had known that a while back, 16

had the Commission known sooner, we may have been able to redirect some resources in order to get it accomplished sooner. I don't mean to be smart about this, but seemingly we have no other choice, no other course of action. The Commission has been precluded from acting its will in some other manner to make sure, if we wanted to, that we wanted you to meet this date.
ME. GEEEVES: First, let me apologize for giving

24 MR. GREEVES: First, let me apologize for giving 25 you the paper late. We should have gotten it to you

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1 earlier. You are right on point.

2 To answer your question, we gave the Commission a 3 paper in February. If you read that paper, it says we are 4 on schedule. As of February we did not know that this would 5 be a problem. Between February and now we detected it, and 6 we have been working very hard on that paper for longer than 7 I'd like to talk about.

8 First, I'm sorry. I apologize for not getting it 9 up to you sooner. It was my goal to get it up to you sooner 10 and I didn't make it. Probably two months ago it was real 11 clear to me that we had a problem and we started working on 12 this paper. It's only a paper of a few pages, but it's 13 unbelievable the complexity of answering the question of, 14 well, who does this apply to, who does it not apply to? Do you have to do an order? Can you just give a license 15 condition? The paper has probably been rewritten, I don't 16 know how many times. All of that is where we are. 17 CHAIRMAN DICUS: I think you are identifying the 18 process problem together with the complexities of the 19 20 question. 21 COMMISSIONER MERRIFIELD: Chairman, I think the staff is working real hard. Everybody around here that I 22 23

23 talk with in the staff is working hard. I think we24 recognize this. I think the Commission is willing to be

25 flexible in order to help the staff where it's needed. An

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- 1 early warning of these things is helpful for us. It
- 2 certainly would make me feel a little bit more in the
- 3 process in that regard. That's the reason for that line of
- 4 questioning.

5 COMMISSIONER McGAFFIGAN: One solution might be that when the staff starts to work on a paper like this that 6 a TA note come up and says a problem has arisen; we don't 7 have all the details as to how to resolve it, but we intend 8 to write a policy paper asking for exemptions. They might 9 have been able to send that as a TA note two months ago and 10 11 then all these details that had to be worked out as to who it applied to and all that they finally get to us on July 12 13 29, and that's okay because we had two months notice that it was coming. That happens sometimes. 14 15 MR. TRAVERS: I think it's a fair comment. I think we need to keep you apprised. Hopefully there won't 16 17 be many instances, but where there are and we can provide 18 you with an early indication, we ought to do it. 19 CHAIRMAN DICUS: Thank you. Again, on behalf of the Commission and fellow 20 21 Commissioners I want to thank the staff for the briefing we 22 had today and for the discussions and the frankness and the 23 candidness of them. I think they have been very beneficial 24 and I think they have shown that we have made some real 25 improvements in our decommissioning program, our license 70 1 termination program, but I think it's clear from the comments you've made and from the discussions that have gone 2 on on either side of the table that we have to continue to 3 4 make progress in identifying further issues that we need to 5 address We have had successes at a number of the sites, 6 7 but we have sites that are problematic and success is not as 8 clear a path as we might hope that it would be. 9 I think you've heard today whatever mechanisms are appropriate, whether it be a paper or whether we should 10 11 consider a briefing in the not too distant future to address some of the issues, where are we with our policies? Do our 12 policies and the programs that we have need to undergo some 13 sort of modification? Have we identified all the policy 14 issues that exist? 15 I think it's clear that we do need additional 16 17 information on the sites, where the sites are, as pointed 18 out, a scorecard, understanding them; perhaps more detailed 19 analvsis.

20 We clearly want the information from the Agreement 21 States. I think we will get in touch with state programs to 22 get the follow-up on where they are with sites that they may 23 have identified or sites that were turned over to them or 24 that we made them aware of. There are such sites such as 25 the MP sites that the states do have.

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1 We heard very specific issues that were brought up 2 that we obviously need more detailed information on. Perhaps we need to consider as we look at improving the 3 programs whether or not we need additional legislation to 4 deal with the sites and whether we need to take more 5 responsibility for the cleanup of these sites. Clearly 6 7 those are some legislative issues for the Commission to wrestle with. 8 Again I want to thank you for the briefing, for 9 the work that you have put in. We will hear the rest of the 10 11 story on the dose modeling in the morning. It should be 12 another very interesting session. 13 Do my colleagues have any additional comments or

14 questions?

- 15 This briefing is adjourned. Thank you.
- 16 [Whereupon at 3:45 p.m. the briefing was
- 17 concluded.]