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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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BRIEFING ON OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS  
(NMSS) PROGRAMS, PERFORMANCE, AND PLANS - WASTE SAFETY

Nuclear Regulatory Commission  
One White Flint North  
Rockville, Maryland

Thursday

MARCH 4, 2004

The Commission met in open session, pursuant to notice,  
Chairman Nils J. Diaz, presiding.

COMMISSIONERS PRESENT:

- NILS J. DIAZ, Chairman of the Commission
- EDWARD MCGAFFIGAN, JR., Member of the Commission
- JEFFREY MERRIFIELD, Member of the Commission

1 (This transcript produced from electronic caption media  
and audio and video media provided by the Nuclear  
2 Regulatory Commission.)

3 STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

4 Secretary

5 General Counsel

6 DR. CARL PAPERIELLO, DEDMRS

7 MARTY VIRGILIO, Director, NMSS

8 JOHN GREEVES, Director, Division of Waste Mgt.

9 BILL REAMER, Deputy Director, Division of Waste Management

10 MARGARET FEDERLINE, Deputy Director, NMSS

11 BILL BRACH, Director, SPFO, NMSS

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1 P-R-O-C-E-E-D-I-N-G-S

2 CHAIRMAN DIAZ: Well, good afternoon. Welcome  
3 to this session on NRC's Office of Nuclear Materials  
4 Safety and Safeguards. This is a waste issue but it is  
5 really a waste safety issue. So it's not what we do  
6 with the waste but what we do to make the waste safe.

7 Isn't that supposed to be the correct way to  
8 say this?

9 I just want to make sure as I'm going from  
10 meeting to meeting that I'm in the right place.

11 CHAIRMAN MCGAFFIGAN: It's Tuesday. It must  
12 be Belgium.

13 CHAIRMAN DIAZ: This is one of the briefings  
14 that the Commission waits patiently for every year to make sure  
15 that NMSS is doing all of the right things at all the  
16 right places. We look forward to discussing the issues  
17 of this agenda.

18 Of course, we all realize that the way that we  
19 program and process and put resources for these issues  
20 will continue to have a major impact on the NRC,  
21 especially in the next few years. There's no doubt  
22 whether we're dealing with high-level waste or other

1 varieties of waste. They are all important. They all  
2 belong to that category that I consider a little closer  
3 to that interface with the public.

4 And, therefore, we give them significant  
5 attention.

6 Fellow Commissioners, have any comments?

7 If not, Mr. Paperiello, please proceed.

8 MR. PAPERIELLO: Good afternoon, Chairman,  
9 Commissioners. Today, NMSS will brief the Commission on  
10 its waste safety activities.

11 And I'm recognizing that supporting them, and  
12 included in this are the activities of the Office of  
13 Research, the Office of the Nuclear Security and  
14 Incident Response, the Office of State Programs and  
15 offices like IP and the General Counsel.

16 These activities are broad and diverse and  
17 include high-level waste, decommissioning, low-level  
18 waste, radioactive material transportation and spent  
19 fuel storage and transportation. They present some  
20 unique challenges to us.

21 The waste arena is one in which there have  
22 been many successes, both programmatic and technical, as

1 well as one in which there are many remaining technical  
2 and scientific challenges.

3         And I'm going to take a minute or two and put  
4 on my deputy EDO hat to make some remarks on a more  
5 technical side.

6         Among the successes in this area are the  
7 license termination rule, the decommissioning and  
8 financial assurance rules which are closely coupled.  
9 Sometimes we lose track of the sight of the fact that  
10 the license termination rule needs to be supported by  
11 the financial assurance.

12         The Part 63 and the supporting licensing  
13 guidelines for that rule in the Yucca Mountain Review  
14 Plan, consolidated decommissioning guidance, the  
15 collaborative work on MARSSIN, and the technical  
16 basis for the clearance rule.

17         In the spent fuel storage and transportation  
18 area, technical work has provided a basis for license  
19 renewal for dry cast storage, high burn up fuel, some  
20 burn up credit and consideration of moderator exclusion.

21         The NRC staff have developed a good scientific  
22 basis for reviewing a Part 63 application and have

1 developed excellent performance assessment tools. The  
2 staff have done well in leveraging resources with  
3 other agencies.

4       The challenges that remain are, in large part,  
5 a result of the need to show compliance with dose  
6 standards that are a few percent of natural background  
7 and for compliance times that range from hundreds to  
8 thousands of years.

9       This work is not a standard textbook or  
10 engineering handbook calculation or methodology. And  
11 the staff is at the cutting edge.

12       Other challenges arise because in the  
13 radiation protection area and fissile material area  
14 are just examples. The professions have historically  
15 used very conservative and even bounding assumptions to  
16 demonstrate compliance.

17       And this is changing. And the use of  
18 probabilistic models, such as in the latest versions of  
19 RESRAD have changed this and incorporate probabilistic  
20 parameter distributions. However, a lot more needs to  
21 be done in reconsiderations of assumptions used in  
22 models.

1           And I expect, as historic assumptions are  
2 challenged, the Commission will be consulted for advice  
3 and guidance. And pointing to one such case. A recent  
4 paper, SECY-04-0035 on soil, is currently before the  
5 Commission, dated March 1st.

6           Last year in SECY-03-0069 on decommissioning, we  
7 pointed out the need to have more realistic models.

8           In a recent paper, SECY-04-0030, among various  
9 proposals, the staff notes that the adoption of new  
10 mathematical tools for desktop computers may offer an  
11 opportunity to develop realistic models more quickly  
12 than traditional programming methods. In these cases  
13 I'm thinking of things like Mathematica, MATLAB, MATHCAD  
14 or similar codes that allow you to do more  
15 transparent simulation and modeling rather than  
16 traditional Fortran.

17           This would make it easier for the staff to  
18 modify models to answer "what if" types of questions.

19           But coupled with all of this technical work --  
20 it's very technical and worth the cutting edge of a lot  
21 of these analyses. All of these activities require that  
22 we increase the public's understanding and awareness of

1 our regulatory program.

2       There's also a large dimension of  
3 participating in a broad spectrum of international waste  
4 activities which you are all aware of. The activities on  
5 protection of biota and those sort of standards.

6       The involvement of the staff in these  
7 activities is important so we can benefit from other  
8 people's experience and contribute to these standards  
9 and ensure they are compatible with our standards.

10       Our presentation today will focus on the  
11 high-level waste program, the decommissioning of sites,  
12 low-level waste, and spent fuel management disposal.  
13 But we are prepared to address any of the issues that  
14 you may wish to address of our various waste programs.

15       At the table today I have Martin Virgilio, the  
16 Director of NMSS; Margaret Federline, the Deputy  
17 Director; John Greeves, the Director of the Division of  
18 Waste Management; Bill Reamer, the Director for the new  
19 NMSS Division of High-Level Waste; and Bill  
20 Brach, the Director of the Spent Fuel Program Office.

21       If the Commission would permit, I would like  
22 to turn the presentation over to Mr. Virgilio.



1 MR. VIRGILIO: Thank you, Carl.

2 Good afternoon, Chairman and Commissioners.

3 In addition to some of the opening remarks

4 Carl made about partnerships in the other offices, I

5 would like to take a moment to recognize both Jim Wiggins

6 and Bruce Mallett, who have traveled from the regions to

7 be here today to support us in responding to issues and

8 the questions that you might have. We work very

9 cooperatively with the regions. They are part of whatever

10 successes that we have. Some of those that Carl

11 outlined.

12 OGC and CIO are also very responsible for the

13 successes. They have been working in parallel with

14 a high-level waste business integrator to make sure we

15 have got the regulatory framework in place to ensure a

16 timely review of an application for a repository.

17 Research is playing an extremely active role

18 with us today in supporting the development of new

19 standards and technical basis for regulatory actions and

20 doing confirmatory research in a wide variety of

21 activities.

22 Research is also working with our spent fuel

1 program on two major National Academies studies which I  
2 know you are familiar with.

3         They are also contributing to our better  
4 understanding of the potential mechanisms that could  
5 cause movement of radioactive materials in the  
6 environment and some of our decommissioning sites.

7         Carl mentioned that we continue to maintain a  
8 good active partnership and relationship with our Office  
9 of Nuclear Security and Incident Response on spent fuel  
10 storage and transportation activities.

11         And Carl also mentioned our cooperative work  
12 with our Office International Programs and furthering  
13 our agenda, the U.S. agenda, and learning from other  
14 countries, and our waste transportation and storage  
15 issues.

16         Finally, I would like to recognize the Center  
17 for Nuclear Waste Regulatory Analysis. They provide us  
18 excellent technical support not only in the high-level  
19 waste area, but in other areas as well.

20         On slide two, just to go over the purpose of  
21 this meeting is to inform the Commission about some of  
22 our high-profile waste activities, their objectives,

1 their current status, some of the challenges we face, some of  
2 the up-coming milestones, so that the Commission is in a better  
3 position to anticipate some of the activities for which  
4 we are going to be asking your guidance and requesting  
5 your involvement.

6 Our objectives are really to have an open  
7 discussion with the Commission in all the activities in  
8 the waste arena. And as the Chairman mentioned, there  
9 are quite a few.

10 As for the process, I will just briefly  
11 present some of our high priority issues. These appear  
12 on slide three.

13 High-level waste, decommissioning, low-level  
14 waste, transportation and spent fuel storage. I will  
15 try to leave the maximum amount of time available for  
16 you to ask us questions about the program.

17 So that takes us to slide four, high-level  
18 waste.

19 Today we are preparing for the transition from  
20 the pre-licensing phase defined by the legislation to the  
21 role of the independent regulator. In parallel, we  
22 continue to carry out our pre-licensing activities by

1 addressing some of the key technical issues and  
2 integrating risk insights to ensure that the program is  
3 focused on the most risk-significant activities and  
4 issues.

5         And in parallel we are conducting independent  
6 evaluations of certain DOE programs to make sure that we  
7 are comfortable about the quality and technical adequacy  
8 of their products. We are also ensuring that all the  
9 necessary programs and qualified staff are in place to  
10 support NRC in our regulatory role.

11         Depending on DOE schedules, the program  
12 milestones that we have established now include the  
13 receipt of the license application by the end of  
14 December '04, the license application and docketing and  
15 a review of the final environmental impact statement so  
16 that we can make decisions about our ability to adopt  
17 that within 90 days of receipt of that application.

18         Then we have our safety evaluation report to  
19 develop. We are looking at about 18-month time line to  
20 do that work. Then in parallel with that we will be  
21 working with Karen and Paul Bollwerk to support  
22 the hearing, that is, by legislation, given a mandated

1 time.

2           For us, balancing the technical issues, the  
3 emerging issues that we face and the resources that we  
4 have available to us is a constant challenge as we  
5 prepare to get ready for the application.

6           In terms of the infrastructure, we have made  
7 substantial progress in building the infrastructure.  
8 Here we are talking about the staff, the equipment, the  
9 procedures, the processes that we will need to have in  
10 place to do the timely review of the license  
11 application.

12           The tools for conducting a risk-informed  
13 review are either ready or scheduled to be in place. We  
14 are doing risk-significant rankings of our KTI  
15 agreements and using the risk insights baseline report  
16 to make sure we are focused on the right things, that we  
17 are getting the most value for the investments that we  
18 are making in this area.

19           We are in parallel developing the inspection  
20 manual that would guide the headquarters and  
21 region-based inspections in performing risk-informed and  
22 performance-based inspection activities in this program. We have

1 the total performance assessment code and the pre-closure  
2 safety analysis tools being refined and used today.

3         We are using the risk insight baseline report  
4 to view the responses that we are getting to these KTI  
5 agreements. And continue to update that information as  
6 new insights become available about what is important to  
7 repository performance.

8         The resources that we have requested as an  
9 agency in 2004 have been appropriated. And we are  
10 implementing the programs.

11         The Commission has submitted its resource  
12 request for 2005. In 2004 and 2005, we are dealing with  
13 a number of emergent issues right now and they are going  
14 to continue to challenge our ability to be ready. And I  
15 would say that if the resources that we are requesting fall  
16 below the requested levels, then I think we are  
17 going to be very challenged to complete our review in a  
18 timely way.

19         Just returning back for a minute to those KTI  
20 agreements, anticipating a question that you might ask,  
21 if you think about we started out with the 200 in '93.  
22 You can almost put them in thirds right now. We have

1 finished addressing a third. We have another third  
2 actively under review. We are waiting for DOE to  
3 provide information on the remaining third. So I think  
4 we are making good progress in that area.

5       On the LSN, I just wanted to mention that  
6 that's a part of a number of activities that NRC has  
7 underway to make our high-level waste document  
8 collection available and easily accessible. One element  
9 is this licensing support network. Another element of  
10 the whole program is the rule that we have published as  
11 an agency back in November. The comment period has ended now.

12       We are in the process of evaluating the  
13 comments. This is primarily an OGC lead on this effort.  
14 And in February, the Licensing Support Network  
15 Administrator sent a letter to DOE and other parties  
16 providing them an option for providing --

17       COMMISSIONER MERRIFIELD: Sorry. You may  
18 need to bring that microphone a little closer. That may  
19 be causing some of the feedback.

20       MR. VIRGILIO: Okay. Let's try that. Okay.

21       Back in February, the Licensing Support  
22 Network Administrator sent a letter to DOE and the other

1 parties -- I think it's working, thanks -- about providing  
2 documents into the system and how they would be made  
3 available and at what time they would be made available.

4       And last week DOE responded and is requesting  
5 additional clarification on certain key issues related  
6 to the NRC's proposal and the LSNA administrator is  
7 going to be responding to those DOE questions.

8       That's pretty much what I wanted to say about  
9 high-level waste.

10       And if we go to slide five, I will talk a  
11 little bit about our decommissioning program.

12       This is a program that I think is a very  
13 important component of NRC's mission in protecting the  
14 environment, particularly with respect to some of the  
15 more complex legacy sites that we have under review.  
16 Here is an area where, as the Chairman mentioned,  
17 there's very high stakeholder involvement and interest  
18 and concern.

19       And our successes, I think here, is a result  
20 of the very strong relationship that we have with the  
21 region, the partnership we enjoy there, in ensuring the  
22 timely restoration and cleanup of some of these sites.



1           The program, I would say, has matured  
2 significantly over the last decade. It includes the  
3 oversight of the decommissioning of the materials  
4 facilities as well as the power reactor facilities. And  
5 our efforts are focused in the licensing and some of the  
6 other areas that I will get into in a minute.

7           We have got extensive experience now  
8 implementing the rule we promulgated back in 1997, the  
9 license termination rule. As a result of that  
10 experience, we have identified some impediments. Not so  
11 much with the rule but with the implementation of the rule.

12           And we have worked very closely with the  
13 Commission. I looked back last year at about this time  
14 in the spring. We sent the Commission a paper proposing  
15 some options of how we could go about implementing the  
16 rule in a different way.

17           You responded back to us. And now we are in  
18 the process of implementing those programmatic changes  
19 that will occur over the next several years, between  
20 today as we move forward, and the 2007 time frame.

21           I think that as we mentioned earlier in  
22 presentation, we are awaiting for guidance. Carl

1 mentioned this on a couple of additional policy issues  
2 that we put forward before the Commission that will  
3 further help us in implementing this program.

4       Currently we approve I would say approximately  
5 300 license terminations every year. We tend to focus  
6 on the big legacy sites. But that's an ongoing program  
7 that enjoys much success and we make good progress  
8 there.

9       I think we are making good success in managing  
10 some of the more complex materials and power reactor  
11 decommissioning sites. I believe we are making the  
12 decisions that we are making today in a risk-informed  
13 way.

14       I mentioned earlier that we are in the process  
15 of implementing some of the changes to the framework as  
16 a result of our interactions on the licensing  
17 termination rule. But I think in parallel we are making  
18 a number of changes to make the program more  
19 risk-informed.

20       And I look at three sites in particular. I  
21 think about FanSteel as one example where we are  
22 working with the licensee to use an industrial use

1 scenario for this site to move away from the resident  
2 farmer. It just doesn't apply in this situation. And I  
3 think it's an opportunity for us to gain some  
4 experience, to sort of as we think about how we are  
5 going to actually change the program.

6 We have AAR, another site, where we are  
7 working with the site owner to establish restrictive  
8 covenants that would serve as the institutional  
9 controls, another sort of a leading edge approach.

10 Then we have the GSA Watertown site where we  
11 are deriving site-specific cleanup criteria for the  
12 site. We are, again, using more realistic scenarios  
13 than resident farmer scenario that we had traditionally  
14 used as a default position, if you will.

15 So we are making, I think, good progress  
16 there. Risk-informing the program as we change the  
17 entire framework to be more risk-informed.

18 And I think we are working more cooperatively  
19 today with EPA. We have an MOU. And we are starting to  
20 implement that MOU and we will see how well that goes as we  
21 proceed.

22 In this area I would say that as part of our

1 processes, we bring new work into the organization and  
2 have to look very critically at the work that may, in  
3 fact, have to be delayed. This is an area where as a  
4 result of emerging work, in particularly we look at the  
5 USEC and the LES applications which we will talk about  
6 next week when we discuss the materials arena. But  
7 there's a big component of that here because this is  
8 where we do the environmental impact statements.

9       So that emergent work has an impact on these  
10 programs and our ability to do everything. So you have  
11 to make some tough choices. It causes in some area some  
12 efforts to be delayed.

13       With respect to financial assurance, we have a  
14 number of current and previous NRC licensees that don't  
15 have the capability. They don't have the financial  
16 wherewithal to do what's necessary to decommission the  
17 facilities. We have identified a number of leading  
18 indicators of potential financial risks for some of  
19 these sites and we are taking action to ensure that we  
20 can do what we can in order to ensure that the sites  
21 are, in fact, decommissioned.

22       I know that we have been working very closely

1 with the region on one such site, Safety Light. It  
2 continues to be a challenging site to us. We have  
3 engaged EPA headquarters. We are looking at options  
4 such as Superfund.

5 But from a safety perspective with the region  
6 and with EPA stepping in to provide some emergency funds  
7 for remedial action, I think we are taking whatever  
8 actions are necessary in order to protect the  
9 environment.

10 I would look at the next bullet on the slide,  
11 the low-level waste disposal options. I think both NRC  
12 and the Agreement State licensees strongly support  
13 additional alternatives for low-level waste disposal.  
14 Decommissioning and site cleanups require there be  
15 facilities for low-level waste disposal for the waste.

16 In addition to enabling the cleanup and  
17 decommissioning of sites, these disposal alternatives  
18 enhance safety and security and provide sound planning  
19 basis for future uses of radioactive materials.

20 I think there are potential external  
21 influences, all aimed at achieving an effective and  
22 efficient national low-level waste disposal system. I

1 think this could, in fact, expand some of the available  
2 options.

3 But some of these options could increase our  
4 workload and pose policy issues for the Commission as  
5 well. We will be engaging with you as they emerge.

6 In terms of the evolving landscape on slide  
7 six, as I started to elude to, the nation's low-level  
8 program is an evolving program. It has been stagnant  
9 for a number of years. But I think events that are  
10 coming up in the near future are going to cause -- it is  
11 going to force a change in these programs.

12 These events include the pending closure of  
13 Barnwell facility in South Carolina to the out of  
14 compact state waste. Texas now is proceeding with the  
15 development of a new facility in response to legislation  
16 enacted last year.

17 EPA has promulgated a proposed -- advance  
18 notice of proposed rulemaking like approach that  
19 would allow disposal of certain low-level radioactive  
20 waste into hazardous facilities. And there has been a  
21 lot of congressional interest.

22 We have seen at least two pieces of proposed

1 legislation focused on greater than class C waste.  
2 Different options that Congress is looking for in trying  
3 to expedite DOE, who has the lead for that informing  
4 solution.

5       These events, I think, are going to increase  
6 tension around an already strained system. But I think  
7 as well as increasing tension, they offer potential for  
8 relief in this area and opportunities to see new  
9 disposal options come forward.

10       Greater than class C waste is, I think, maybe  
11 one of the most problematic in this area. It's highly  
12 radioactive components primarily from nuclear power  
13 plants, some sealed source and some other highly  
14 radioactive waste material.

15       The volume itself is a small fraction of the  
16 total amount of low-level radioactive waste that is  
17 generated. But right now there's no disposal facility  
18 for it. And this is why Congress is starting to engage  
19 and we are starting to see some movement within DOE.

20       If legislation is passed, we expect that DOE's  
21 activities could be expedited in this area. Without  
22 legislation, we still see some movement on the part of

1 DOE to make some changes in this area.

2       This is an area that will likely require our  
3 involvement -- the Low-Level Waste Policy Act, which  
4 specified that we have licensing responsibility in this  
5 area. And I am sure it will pose policy issues that we  
6 are going to need to engage the Commission on.

7       As far as the EPA ANPR for the disposal of  
8 low-level radioactive waste, that's an opportunity to  
9 solicit public comments on several options that EPA is  
10 currently considering for improving the framework for  
11 disposal of hazardous waste with low concentrations of  
12 radioactive materials.

13       One proposal that they have put forward is  
14 disposing of mixed wastes in sites. We have been  
15 working very collaboratively and closely with EPA on  
16 this ANPR. And we believe that we can work with EPA to  
17 create a framework that will allow yet another option for  
18 disposal of low-level waste.

19       There are other stakeholders that are weighing  
20 into this, National Academies as well as GAO. National  
21 Academies has been done a study to look at how we can  
22 improve the regulation and management of low-level



1 waste. This is including some waste that is outside of  
2 our control right now.

3 It also includes 11 E-2 byproduct material and  
4 some of the greater than the Class C waste that I talked about  
5 earlier.

6 The National Academies's report is being done  
7 in two phases. We have seen the first phase of the  
8 report. And we have offered some comments back to them,  
9 some corrections and some clarifications that we thought  
10 were necessary.

11 It just basically puts forward -- it lays out  
12 the landscape. It provides, more or less, a factual  
13 summary of here's where we are and offers some insights  
14 about how you might want to re-categorize some of the  
15 waste that is out there.

16 The real benefit, I think, will come from the  
17 second phase of the report, if, in fact, they go forward  
18 and do that. We understand they are somewhat strained  
19 for resources too. And there's some doubt as to whether  
20 they have the financial resources to move forward and do  
21 the second phase of this study.

22 GAO is also conducting a study to ascertain

1 the extent of some of the potential problems in this  
2 area and access to low-level waste disposal facilities  
3 and what actions that one might take as a nation to  
4 mitigate some of those issues.

5 Now I would like to move on to slide seven.

6 Talk a little bit about our storage and transportation  
7 of radioactive waste.

8 This is a significant growth area for us and I  
9 think for the utilities that we regulate.

10 We regulate today 30 independent spent fuel  
11 storage installations. This number has more than  
12 doubled from where we were when I came into this program  
13 about five years ago. And our current projections take  
14 us out to be approximately 50 independent spent fuel  
15 storage installations by the year 2010.

16 This is a recognition that utilities continue  
17 to need storage capability until such point as the  
18 repository becomes operational. This is an area where I  
19 think -- another area where we have enjoyed really good  
20 cooperation and support from the regions.

21 Thus far, NRC has been able to meet the  
22 industry demands and maintain safety by ensuring and

1 continue to provide a full core offload capability. But  
2 it's a challenge for us to continue to meet these needs,  
3 especially as you look out into the future and think  
4 about what's likely to face us over the next couple of years  
5 in terms of applications.

6       There are other challenges here. The spent  
7 fuel cast designs are of high stakeholder interests and  
8 there is a fierce industry competition in this area. As  
9 a result, one of the unfortunate side effects of that is  
10 is we don't get a lot of advance notice in terms of being able to  
11 forecast who's coming in with what application. So that  
12 presents a challenge to us today as we prepare the 2006  
13 budget, being able to estimate who's going to be in the  
14 queue at that point in time, given this fiercely  
15 competitive nature of the business.

16       I think, though, however this turns out, as I  
17 look forward to 2005 and 2006, we are going to be  
18 significantly challenged as a result of the work that we  
19 can anticipate and the other emerging issues.

20       And specifically, the other emerging issue  
21 that we looked at is DOE, who is now informally  
22 discussing an acceleration of their development of a

1 transportation system for Yucca Mountain. DOE has not  
2 estimated the number of transportation designs  
3 specifically, but we are making some educated guesses about  
4 the amount of work that we are going to be doing in  
5 review of transportation applications over the next  
6 several years.

7       We can expect this work to probably start  
8 sometime in 2005 and continue out maybe until the 2007  
9 time frame.

10       Continuing on, staying on slide seven, though.  
11 We have a number of evolving technical issues that we  
12 are dealing with. This is not cookie cutter by any  
13 means. I think Carl stated that quite well in his  
14 opening remarks.

15       We have got a number of fairly significant  
16 technical challenges that are going to require us to do  
17 more detailed, more sophisticated technical analysis to  
18 keep up with the industry applications that we are  
19 receiving. I think there are three areas that we can  
20 point to today. And more will emerge.

21       But if I look at today's issues, I see that  
22 high burn up fuel thermal issues are coming up, where

1 the industry is coming at us with cask designs or  
2 amendments that would increase the thermal loads in these  
3 designs that are being proposed.

4       There is an increased interest and allowance  
5 for burn up credit, more so than we have dealt with in  
6 the past. This allows the industry to reduce margins  
7 and challenges us to have to go back and do more  
8 sophisticated criticality analysis.

9       The other area where we are taking probably a more  
10 leading edge on is moderated exclusion for  
11 transportation. This offers, I think, and so does the  
12 staff think -- this offers us an opportunity to gain  
13 some benefits. But it's going to require us to do some  
14 more sophisticated structural analysis and some more  
15 sophisticated criticality analysis than the past  
16 applications have required for us to do.

17       While the staff has issued guidance based on  
18 the available data and current technical understanding,  
19 we believe that we are going to need more work to  
20 support these industry needs and evolving technical  
21 issues. And this is where we turn to Research. And  
22 Research provides and continues to provide us good

1 support, as well as looking out at the international  
2 community for data as well.

3 That's pretty much what I wanted to say about  
4 evolving designs.

5 We are still on slide seven. We have storage  
6 and transportation issues. The package performance  
7 study, I just mention that briefly. It's an important  
8 part of our spent fuel transportation cask research and  
9 development program.

10 Over the next several years our objectives are  
11 to demonstrate the robustness of a full-scale spent  
12 nuclear transportation cask. And it's a program that we  
13 are currently engaging with the Commission on. And we  
14 look forward to your feedback on that program.

15 Research has the agency lead. NMSS is  
16 basically in a supportive role in this area. And we  
17 have worked very closely in cooperation with Research  
18 to help ensure that the issues that have been raised by  
19 the stakeholders are, in fact, being considered in the  
20 program development.

21 This is another area where we have engagement  
22 with the National Academies. Two studies that are

1 underway. One having to do with transportation. This  
2 is a study that has been ongoing for several years. Its  
3 objectives are to develop an independent high-level  
4 synthesis of heat, technical and societal concerns about  
5 the spent fuel transportation issues and identify  
6 whatever technical and policy options might be available  
7 for addressing these issues.

8         We believe that insights that come out of  
9 these studies could help inform our programmatic  
10 activities. We have been working with the National  
11 Academies, providing them information and witnessing  
12 some of their presentations as well.

13         We expect that this study will help identify  
14 whatever gaps might exist, whatever technical needs  
15 might exist. It's now scheduled for completion in calendar  
16 year 2005. And depending on the study outcome, it could  
17 have some implications for our programs.

18         The second area where the National Academies  
19 is working and we are supporting them is this six-month  
20 study that was directed by Congress. This is a study to  
21 look at safety and security of spent fuel storage, both  
22 wet spent fuel storage and dry spent fuel storage and

1 looking at both single, dual purpose, multi-purpose canisters and  
2 casks.

3       NAS began this study back in January. It has  
4 been tasked by Congress to deliver a classified report  
5 within six months and an unclassified report in about a  
6 year.

7       Research, here again, has the lead. NMSS is  
8 in a supportive role and we are working actively with  
9 NSIR as well in this area. And depending on the study  
10 outcome, just like the other study, it could have some  
11 potential policy issues that we will be engaging the  
12 Commission on and potential impacts on our program.

13       Slide eight. I just want to touch on some  
14 other issues.

15       We have the vulnerability assessments ongoing,  
16 NRC staff, principally in the area of fuel storage,  
17 casks and transportation packages, for this arena. And  
18 we are scheduled to be completed with that effort this  
19 year. And I will be engaging the Commission.

20       I can only speak in very limited details.

21 These are classified studies. This is a public forum.

22 But I can assure you that they are getting management



1 attention. And I assure you that they are on schedule  
2 to be completed this fiscal year. We have programmed  
3 resources and reprogrammed resources in this area in  
4 order to ensure that we complete the project.

5 In terms of risk-informing our storage  
6 activities, we have four major standard review plans  
7 that provide guidance both on the transportation Part 71  
8 and the storage activities -- I am sorry --  
9 transportation Part 71 and storage Part 72 activities.

10 Our storage licensing is based in part -- if  
11 you look historically on a lot of deterministic  
12 calculations and best judgement, best estimates. Today we  
13 are looking to revise that program, to make it more  
14 risk-informed, to look at where we have margin and to  
15 take margin out of that program where it's excessive and  
16 unnecessary. We are using engineering judgment and risk  
17 assessment work that has been performed by the Office of  
18 Research to support these activities.

19 Our approach is going to be to use the risk  
20 assessment information, other factors, and make changes  
21 to the program. Make it more risk-informed and make it  
22 more performance-based wherever you can.

1           The environmental reviews I mentioned earlier.  
2 I think '04 has been a successful year already. We have  
3 completed final environmental impact statements for one  
4 of our ISFSIs, the Foster Wheeler ISFSI, and the MOX  
5 facility.

6           We are currently working on a number of  
7 environmental impact statements that relate to  
8 significant licensing and rule making activities.

9           We are currently in the process of preparing  
10 three additional EIS's that are scheduled to be  
11 completed in the '05 to '07 time frame. One of which is  
12 the LES, Louisiana Energy Service, gas centrifuge. And  
13 we expect to receive yet another application for a  
14 second gas centrifuge, USEC, in the August time frame,  
15 August '04, this year.

16           Other activities are expected to require the  
17 initiation of probably three additional EIS's between 2005 and  
18 2007 time frame.

19           So I think you can see the environmental  
20 workload increasing. And it is increased over our  
21 projects. Again, we didn't anticipate some of this  
22 work. So if I look back to, you know, two years ago

1 when we were putting this budget together, we didn't  
2 anticipate quite a lot of what we have of the  
3 plate today.

4 We continue to go through that add/shed  
5 process. Bring in new work, take off old work. But it  
6 still leaves us very strained and strapped for resources  
7 and challenged. Particularly, if I look at the big EIS's,  
8 the USEC, the LES, and the accelerated schedules that are  
9 expected of us.

10 In terms of the international community, I  
11 think we play a significant role in the development of  
12 international safety standards and technical documents  
13 in areas that are appropriate for us.

14 Examples in the waste arena. If I wanted to  
15 point to a few, I would say the Transportation Safety  
16 Standards Committee, Bill Brach and the staff in the  
17 Spent Fuel Project Office have been very active. NRC  
18 involvement has, in fact, been very shaping and very  
19 influential in that area.

20 And I think that the other areas where I can  
21 point to for successes are involvement in the IAEA  
22 technical meetings on spent fuel storage. That's an

1 area where, again, I think, Bill Brach and staff in the  
2 Spent Fuel Project Office have been very successful in shaping  
3 the international standards to ensure that they make  
4 sense. Not only for us but globally.

5 I would point to a third area, just an  
6 example. We have bilateral exchanges. We are  
7 interacting with the French. We are interacting with  
8 Canadians and Mexicans through the trilateral exchanges.

9 I think if I look back at the last year, we  
10 had a very good interaction. We are looking forward to  
11 this summer with another good trilateral exchange.

12 You can see the fruits of that first meeting  
13 in terms of now us exchanging more information about  
14 events. You can see us doing much better in terms of  
15 collaborating on source control. I think we have got a  
16 lot out of it in terms of meetings with them about how  
17 they are risk informing their materials program and the  
18 very insightful work that they are doing. I think it's  
19 going to be very helpful to us in our programs.

20 I think when I look at this globally, we have  
21 got to ensure that we stay well focused and be very  
22 choiceful about our investments in the international

1 arena. But I think they have a very positive influence  
2 on our programs.

3         And I think that we need to be seen in certain  
4 areas, not across the board but in certain key areas, as  
5 being active and constructive contributors. We have  
6 done a lot of work, not only in that area but a credit  
7 to the staff for all the work that they have done in  
8 making sure that when we go into these exchanges, we  
9 have coordinated well with our sister federal  
10 agencies, working extensively with EPA and DOE and  
11 others stakeholders in this area to make sure that we  
12 have very constructive and influential participation in  
13 our experiences.

14         In terms of other contributors to success on  
15 slide nine. As we mentioned earlier, I think the  
16 success story around the ISFSIs, the independent spent fuel  
17 storage installations, the advances that we have made in  
18 the last five years in terms of the number of ISFSIs  
19 that are now licensed. If you step back from that and  
20 realize that that all involves cask designs too, and I  
21 think we have been very successful in both dual purpose  
22 storage and transportation cask and single purpose

1 designs.

2       There are seven dual purpose cask designs that  
3 are certified by the NRC. I think this provides  
4 multiple options for interim storage of spent fuel for  
5 licensees and it also provides multiple options for  
6 transportation for spent fuel to a repository or another  
7 storage facility without reopening the internal  
8 canister.

9       Currently, we have approved over 10 dry cask  
10 storage systems with multiple amendments. Seems like  
11 for every site there are unique characteristics and  
12 unique designs.

13       So where it -- originally, I think, as  
14 Congress had envisioned this program on having us  
15 certify by rulemaking the cask, I think the original  
16 vision was a few casks and a few designs. And where we  
17 stand today although there are only 10, there are  
18 multiple amendments that customize literally every site  
19 for these applications.

20       I think about other contributions to the  
21 overall success. Since 1999, I think you could see a  
22 number of changes and initiatives to improve the manner

1 in which we oversee the decommissioning of our  
2 facilities.

3 I look at that in two bins. One is how we  
4 have streamlined the efficiencies. And then I look at  
5 it in another bin of how we have risk-informed. And I  
6 think about that in terms of effectiveness and in terms  
7 of the streamlining. We have done a lot to streamline  
8 the acceptance review process. We have done a lot to  
9 ensure that the framework is evolving.

10 I spoke earlier about some of the things that  
11 we are doing around the LTR rule and some of the other  
12 things in terms of process, side-by-side confirmatory  
13 analyses with the licensees and relying more heavily on  
14 the licensee's confirmatory analysis as opposed to  
15 expending our resources to do site surveys.

16 In terms of risk informing the program, with  
17 the support of Research we have developed and applied  
18 more risk-informed tools such as RESRAD and RESRAD Build  
19 and we have developed and implemented, I think, more  
20 risk-informed approaches for selecting realistic  
21 scenarios.

22 In thinking about other contributions to

1 success, good feedback from the regions about the  
2 consolidated risk-informed, performance-based  
3 decommissioning guidance. I will have that consolidated  
4 into three volumes that, I think, the users find helpful  
5 and they are relying on it today.

6 Chairman, you mentioned in your opening remarks  
7 about openness and about stakeholder involvement. This  
8 is an area where we are increasing our emphasis to  
9 ensure that the public is aware and knowledgeable about  
10 our regulatory programs.

11 We have developed and continue to develop and  
12 improve our communication plans and our methods. We use  
13 websites. We use stakeholder meetings. We use  
14 workshops. And provide the opportunity of the public to  
15 observe us and to understand how we conduct our business  
16 and allow them opportunities to participate in the  
17 process as well.

18 As part of our openness initiative, we have  
19 had numerous workshops, town hall meetings and continue  
20 to do that. I think it's important that we continue to  
21 focus on this openness initiative. At the  
22 decommissioning sites, there is significant public



1 interest.

2       Here, the regions have engaged -- and I think,  
3 Commissioner Merrifield, you have challenged us a number  
4 of times about the success stories in this area. I  
5 think we have, as a result of the regions involvement, a  
6 number of success stories where we have engaged the  
7 public through the citizens advisory panels and  
8 one-on-one meetings.

9       And I think they have been complementary to  
10 our programs, complementary for keeping them informed  
11 about our activities.

12       Lastly, in terms of success, I point to the  
13 Waste Convention. I think NRC was a successful  
14 participant as a member of the US team. We participated  
15 in the development of the first national report for the  
16 joint convention on safety of spent fuel management and  
17 on the safety of radioactive waste management. And we  
18 were there in the first national report review  
19 meetings. And I think our contributions were very much  
20 appreciated.

21       Just now focusing on the organization for a  
22 moment, on slide ten.

1           We have a commitment within NMSS and the  
2 management team to be, to increase our organizational  
3 capacity, to utilize the full potential of every member  
4 of our staff, to demonstrate behaviors consistent with  
5 our core values.

6           We have a number of major initiatives that  
7 focus on improving the organization, some of them I will  
8 just list here, managing diversity, communications,  
9 roles and responsibilities, and maintaining and  
10 improving our technical skills.

11          With regard to managing diversity, we are  
12 today promoting, I think, more effective recruiting,  
13 development and retention of a highly qualified diverse  
14 work force. We are continuing to contribute to our  
15 recruiting efforts, development and closure --  
16 development and use of gap closure strategies. And we  
17 have, I think, utilized the nuclear safety intern  
18 program as a pipeline for the development of critical  
19 skills and core competencies.

20          We have done quite a bit to establish a work  
21 environment committed to empowering our staff using  
22 their knowledge, skills and abilities, as well as their

1 creativity to come at problems and resolve problems in a  
2 unique way. I believe that this is leading to  
3 improvements in our quality, the quantity of the work  
4 that we produce and the timeliness of our work products.

5         And I think it is today making NMSS a more  
6 responsive organization. And we have to be in the  
7 environment that we are working.

8         Communications. We have done a few things  
9 here. We are continuing to do things. We have  
10 established a group to focus on what are the impediments  
11 to good communications within NMSS and outside of NMSS.  
12 We have identified some areas where we can take actions.  
13 Overall, our objectives are to increase communications  
14 up, down and across not only within NMSS, but across the  
15 NRC. And not only upward within NMSS, but upward to the  
16 Commission as well.

17         If I think about other initiatives, the roles  
18 and responsibility is another major emphasis for our  
19 office. We believe that we can achieve greater  
20 organizational effectiveness and tap into some untapped  
21 potential of our work force by making sure we can  
22 carefully distinguish whose role is it and whose

1 responsibility is it for various activities we do in the  
2 organization.

3 I think that this is an initiative that will  
4 help us identify and eliminate whatever redundancies and  
5 inefficiencies we have. And also, it's a big  
6 improvement to morale, I think, to see that there's value  
7 added at each level in the organization. As papers come  
8 up to Margaret and I, it's important that at each stop along  
9 the way, there's value added and everybody sees the  
10 value added.

11 And that individual staff members have their  
12 roles and responsibilities clear. They know what's  
13 expected of them. And they get the support they need in  
14 order to meet those expectations.

15 Maintaining and improving technical skills is  
16 a huge effort for us, especially in this evolving area  
17 that Carl eluded to in his opening remarks. There are  
18 great technical challenges that we face and it requires  
19 critical skills. And these are not stagnant. They continue  
20 to evolve and we continue to need to place the emphasis  
21 on ensuring that our staff has the skills, the tools in  
22 order to deal with some of these evolving issues.

1           Our vision is to make NMSS a world class  
2 organization. And part of that is making sure that we  
3 have the technical capabilities.

4           We are looking at competency-based training, a  
5 new way to approach that. Not only for the staff but  
6 also the management team. To make sure that we have all  
7 the tools necessary to make us a most efficient and  
8 effective organization.

9           We are also committed to making sure that we  
10 have the right people in the right places, playing to  
11 individual's talents and their interests, particularly  
12 in the technical areas, and making sure that we continue  
13 to foster their development technically.

14          So that's a major effort for us.

15          In terms of risk informing our program, this  
16 is an area that we -- an opportunity, I think, with a  
17 minimal amount of resources to get our programs to a  
18 better place, to improve our focus, to make us more  
19 effective, to improve how we do what we do, to make us  
20 more efficient. And I have already cited many examples  
21 through the presentation today: High-level waste,  
22 low-level waste, decommissioning, transportation and

1 storage. I won't go back and repeat that.

2       So that brings me to slide 11, the conclusion.

3       I think a key to continuous improvement in our  
4 organization is a better alignment with the Commission.  
5 This meeting is one such opportunity for us to get that  
6 alignment. I think it's appropriate that we ensure that  
7 we have the appropriate -- it's important that we have  
8 the appropriate priorities and direction. And these  
9 kinds of engagements help ensure that that incurs and  
10 that we continue to meet agency needs.

11       As I mentioned, this is a rapidly evolving  
12 external environment. Things change faster than our  
13 budgets. So we develop plans and schedules and the  
14 external environment changes on us. So we are  
15 constantly adding, shedding, changing direction.

16       And I think it's important that we stay  
17 closely tied to you as we do that so that we are sure  
18 that we understand the expectations as that external  
19 environment in which we operate continues to evolve.

20       That completes my prepared remarks. Thank you  
21 very much and we are here and available to answer  
22 whatever questions that you have.

1 CHAIRMAN DIAZ: Thank you, Marty. Thank you,  
2 Carl. I appreciate the efforts of the staff putting  
3 this together for us. And I believe Commissioner  
4 McGaffigan will go first.

5 CHAIRMAN MCGAFFIGAN: Thank you, Mr. Chairman.

6 Obviously there is a very broad amount of  
7 activity to discuss here and some of these areas we have  
8 had recent meetings on, like decommissioning. So I'm  
9 not going to ask very many questions there.

10 In high-level waste you said that we are about  
11 one third, one third, one third. And I think the backup  
12 material says that we are waiting for 79 submittals from  
13 DOE on key technical issues. So that would mean by  
14 deduction there is 214, if I am doing the arithmetic  
15 right, some 90-odd complete, is my recollection, and  
16 then 120 or so being reviewed, and then 80 yet to come in.

17 Last year when we had a meeting -- I don't  
18 think it was this one on this subject, the issue of the  
19 risk of some of the -- it looked like from one of the  
20 tables that you showed us that the late to be submitted  
21 KTIs were the ones that were scoring the highest in this  
22 very preliminary risk metric that this staff had put

1 together, and the ACNW criticized because they said it  
2 wasn't quite a risk yet.

3 But where do we stand, either you or Bill  
4 Reamer, in terms of really being ready come December, if  
5 there is going to be an application in December?

6 MR. VIRGILIO: Let me start and then I will  
7 turn it over to Bill.

8 I look back at to where we were last year in  
9 this meeting, and I think we have re-racked the schedule  
10 at least three times working with DOE. When I look back  
11 at where we were last year, there were, I think, various  
12 key technical agreements that we would have ranked high  
13 from a risk perspective that were scheduled to be  
14 submitted right about at the time of the application.  
15 And there may have been some for which we weren't going  
16 to get the information until after the application had  
17 been submitted to us.

18 Since then, DOE has accelerated its schedules  
19 and we continue to challenge them. We did so just  
20 recently in the quarterly management meeting we had with  
21 them with some of the more significant ones still coming  
22 in later this summer, which I still think presents a



1 problem to us.

2           So we are continuing to ensure sure that they  
3 understand our interests.

4           On the risk issues, we have continued to close  
5 the gap between -- we think these are more significant  
6 from a repository performance proposal than they do. We  
7 understand some of the differences today. And we are  
8 working on those differences as well.

9           Bill, you want to add to that?

10          MR. REAMER: In terms of specifics, my  
11 recollection is that there are approximately 40 of the  
12 293 that we rated as high. That in the complete bin, we  
13 are talking about 10 percent.

14          In the not yet submitted bin, we are talking  
15 about 40 percent.

16          CHAIRMAN MCGAFFIGAN: Sixteen of the forty?

17          MR. REAMER: At least 16/18. I don't have the  
18 exact number before me.

19          I think where I feel confident is in DOE's  
20 consistent statement that all the agreements will be  
21 addressed by the summer time frame. So that tells me  
22 that before December I will be able to look at them.

1 The staff will be able to look at them, review them and  
2 reach some conclusions which at that point will probably  
3 translate into potential activities after a license  
4 application, if it's submitted in December of '04.

5         And there will, in addition, continue to be  
6 between now and August those informal interactions that  
7 DOE is, because of their work, willing to sustain. So  
8 I think there's some additional understanding, even as  
9 to those 18 that are incomplete that we can get before  
10 that August final deadline.

11         CHAIRMAN MCGAFFIGAN: Again, staying on  
12 high-level waste, you mentioned -- I don't think the  
13 Commission has seen yet -- that we have received a  
14 response from DOE with regard to the proposal made as to  
15 how they can make their material available to the  
16 Licensing Support Network. And could you just address  
17 how close we are?

18         Because again -- you may have to go to the  
19 microphone Paul. But if they're going to be submitting an  
20 application in December, theoretically they have to  
21 certify in June under our rule. I'm just wondering --  
22 June is pretty close.

1 MR. BOLLWERK: Yes, it is. Paul Bollwerk with the Licensing Board Panel.

2 We received a response from DOE approximately 8 o'clock on Friday

3 evening, which I sent over a copy to all the assistants

4 for the Commissioners on Monday. The DOE's response is

5 basically they are willing to talk and have additional

6 discussions with us.

7 The LSN Administrator is scheduled to meet on

8 Tuesday to help hold those discussions.

9 CHAIRMAN MCGAFFIGAN: Next Tuesday?

10 MR. BOLLWERK: Next Tuesday, yes.

11 That was their request that it be held here

12 in Washington.

13 CHAIRMAN MCGAFFIGAN: It's because of all of

14 these meetings that we have been in that Chairman Diaz

15 referred to at the outset that I probably haven't read

16 that particular letter. And it may be that my

17 colleagues are in the same boat.

18 But did they indicate that they thought that

19 the staff proposal was about in the right place and they

20 wanted some -- what's the tenor of the letter? Or are

21 they totally open and don't know what their position is?

22 MR. BOLLWERK: I would say the tenor of the

1 letter was positive. They both indicated that they  
2 thought that it was a good effort on the Commission's  
3 part to address some of the concerns they had up to this  
4 point. And that they were interested in talking with us  
5 further. So I thought it was a positive letter.

6 But obviously, the devil will be in the  
7 details, we will have to see what their concerns still  
8 are.

9 CHAIRMAN MCGAFFIGAN: And the total volume of  
10 documents, have they addressed that recently in terms of  
11 what the latest number is?

12 MR. BOLLWERK: Yes. The letter they sent us,  
13 again, gave us an estimate of, I believe, between  
14 twenty-six and a half and thirty-seven and a half  
15 million pages, three to four million documents. So we  
16 are back in approximately the same place we were about a  
17 year ago when they give us that estimate.

18 CHAIRMAN MCGAFFIGAN: Thank you.

19 The last question that I will ask in  
20 high-level waste -- and it's one that goes to sort of  
21 the people issues that you addressed late in your  
22 presentation, Marty, is, this is a group of people who

1 have been largely sort of research focused in their  
2 center for nuclear waste regulatory analysis. And San  
3 Antonio has been quite research focused for the last  
4 many years.

5       We are about to enter a licensing regime where  
6 you have to produce an SER and potentially an EIS,  
7 depending on the judgment made as to how much we can  
8 rely on the -- as the statute tells us to -- how much we  
9 can rely on the DOE EIS. How are you getting ready for  
10 licensing?

11       My understanding is that the number of people  
12 who, you know, who have actually been involved in  
13 licensing in that division is not high.

14       So tell me how you are trying to get ready for  
15 that?

16

17       MR. VIRGILIO: Let me start off and then again I  
18 will turn to Bill.

19       We have brought some people into the  
20 organization that have detailed licensing experience.  
21 And in addition, we are currently developing detailed  
22 plans and schedules that would say basically how we are

1 going to manage this program, dealing with multiple  
2 issues in parallel with the staff that we have available  
3 and how we are going to make critical decisions.

4 MR. REAMER: Just a couple of other points.

5 Of course, in doing the review of the  
6 agreements right now, we are bringing a risk focus, a  
7 licensing review type focus to those agreements.

8 Each of the people in the division are being  
9 trained as reviewers. We are offering and providing  
10 that same training to the people at the center as well.

11 So I totally agree with you, the importance of  
12 the regulatory perspective being the perspective that we  
13 do in the license review.

14 CHAIRMAN MCGAFFIGAN: It's a tremendous  
15 difference between the sort of research perspective and  
16 a regulatory perspective.

17 The researcher wants to know that -- how many  
18 significant figures, Mr. Chairman?

19 CHAIRMAN DIAZ: Five.

20 CHAIRMAN MCGAFFIGAN: Five. And it's rare to  
21 make a judgment as to whether there is a reasonable  
22 expectation that the reasonably maximally exposed

1 individual at a certain point outside of Yucca Mountain  
2 will receive 15 millirems over the next 10,000 years is  
3 not a decision that we are going to be dealing with five  
4 significant figure precision.

5 But, Carl, I have provoked, I fear, but I  
6 will turn the podium over.

7 MR. PAPERIELLO: I would like to make an  
8 observation. These are people who did do the site  
9 suitability comments, which is granted, not a license  
10 but it's a licensing like action. They have prepared  
11 the Yucca Mountain review plan.

12 I think they are capable of doing their job.  
13 It's a question of discipline what Marty is doing in  
14 terms of detail. I have seen some of the detail  
15 schedules or some of the work they are doing. It's the  
16 way to do it.

17 In other words, you have to -- things have to  
18 be done with discipline and done on time. And it's a  
19 trade-off of knowing something about these are the  
20 people who wrote the rule, they wrote the plan. I have  
21 confidence --

22 MS. FEDERLINE: And I could just add. Some of

1 the people at the center have also participated in the  
2 PFS licensing. So there are seminars being given at the  
3 center about experience that is being learned which is  
4 very important.

5 CHAIRMAN MCGAFFIGAN: Thank you.

6 The greater than Class C waste area. It's  
7 sort of going over to low-level waste. Our licensees at  
8 the moment are having to make decisions as to what they  
9 do. And I think generally what is happening at reactor sites  
10 is with the approval of Bill Brach's organization, they  
11 are taking a cask that is approved for spent fuel and  
12 loading up their greater than Class C waste in it and  
13 putting it in a cask that looks identical to all the  
14 other casks at their ISFSI.

15 As DOE thinks about what it may do with  
16 greater than Class C waste, is it taking into account  
17 the actual physical reality at places like Main Yankee,  
18 Big Rock Point, Trojan, Rancho Seco, et cetera?

19 MR. VIRGILIO: I believe they are. What is  
20 coming into focus for me, it's not only the reactor  
21 licensees but it is the material licensees today as well  
22 and as we work cooperatively with DOE on the off-site



1 source recovery program. And it is really come into  
2 focus that you have a number of greater than Class C  
3 sources there as well.

4 CHAIRMAN MCGAFFIGAN: And DOE is thankfully --  
5 and I think we are very appreciative is collecting a lot  
6 of those at the current time and bringing them to one of  
7 their sites which has capacity issues. But it's not  
8 meant to be a permanent site by any means.

9 MR. VIRGILIO: That's correct.

10 CHAIRMAN MCGAFFIGAN: And so we -- getting on  
11 with that issue is important. I hope DOE -- you said  
12 you think they will proceed whether the legislation  
13 passes or not?

14 MR. VIRGILIO: Let me turn it over to John who  
15 has probably met more with DOE recently than any of us.

16 MR. GREEVES: We have met with DOE as recently as  
17 a week ago. They are getting on to this. They are  
18 trying to figure out how to roll it out. I feel certain  
19 they have been in touch with the licensees. I know the  
20 licensees have been in touch with them in terms of the  
21 reality of this particular material, particularly the  
22 people in the northeast.

1           So my knowledge is they are in direct contact  
2 on this issue. And DOE has met with us several times on  
3 how they are going to address this. It will call for an  
4 environmental impact statement at some point in time.

5           This all goes back to the Low-Level Waste  
6 Amendments Act of '85 which gave us the responsibility  
7 to license such a facility and the Department the responsibility  
8 to take the material.

9           So I have had recent dialogue with them. I'm  
10 not sure how far I can go into that because I think it's  
11 pre-decisional on their part.

12          CHAIRMAN MCGAFFIGAN: If it's pre-decisional on  
13 their part, I don't want you to break any confidences.

14          The last area, then I will turn it over to my  
15 colleagues, is the area of the EPA advanced notice of  
16 proposed rulemaking. I think this is a very  
17 constructive step on EPA's part. I know our staff  
18 worked hand and glove with them in terms of developing  
19 this proposal. It follows on to the actual actions  
20 that we have taken in areas such as bag house dust which  
21 I believe have been disposed of in RCRA Subtitle C  
22 facilities.

1           The sort of material that EPA is proposing --  
2 is potentially proposing. They are not proposing. They  
3 are asking questions about -- but the potential rule  
4 that they -- and we would have to have a parallel  
5 rule -- would talk about here the material is, in fact,  
6 in my mind and I think factually far less dangerous than  
7 material that already goes into RCRA Subtitle C  
8 facilities. There's this notion that, you know,  
9 something is radioactive and therefore it's dangerous.

10           Well, heavy metals, you know, those of us  
11 who -- some live in the District, some live in  
12 Arlington. There's this heavy metal called lead that we  
13 are running our taps, building up our water bills a lot  
14 at the moment because that has an infinite half life.  
15 And that goes into RCRA Subtitle C facilities. Arsenic  
16 mercury, I mean, they have infinite half lives. They  
17 are going to be around there forever.

18           And they also, most RCRA Subtitle C facilities  
19 are consistent with our old transportation regulations,  
20 have been receiving from the oil and gas sector material  
21 with up to 2000 picocuries per gram of radium in it.  
22 Which is fairly hot material in a radioactive sense.

1 I think it's all very safely kept in RCRA  
2 Subtitle C facilities. And there's absolutely no issues  
3 that these are -- our sister agency does a good job in  
4 the requirements they set for RCRA Subtitle C  
5 facilities.

6 So I'm very enthusiastic about the direction  
7 that EPA, I hope, will go. I know the staff is  
8 preparing comments on the EPA advanced notice of  
9 proposed rulemaking that I'm sure will be supportive  
10 since we have worked with them shoulder to shoulder on  
11 developing it. But I wanted to use this public forum to  
12 praise our sister agency and hope that this leads to a  
13 joint NRC parallel, NRC and EPA rulemakings down the  
14 road.

15 And while Commissioner Merrifield gets back  
16 into his seat -- since he's not used to me praising EPA,  
17 I will yield the floor.

18 COMMISSIONER MERRIFIELD: And I appreciate  
19 that. I would like to, in the context of your comment,  
20 perhaps pile on a bit.

21 As you know and many of the audience know,  
22 during the time I spent in my last part in the Senate, I

1 was, in fact, one of the Senate counsels who was  
2 responsible for the RCRA statute and had a high degree  
3 of understanding and involvement with EPA regarding that  
4 program.

5 Now, a lot of folks who I got to know quite  
6 well over at EPA will be probably surprised to hear me  
7 also complimenting them for that part of the program.

8 I think as one who have looked at, in the  
9 long-term, a lot of the work that they do in order to  
10 ensure the safety of RCRA Subtitle C sites, I would  
11 agree with the characterization that Commissioner  
12 McGaffigan has made in terms of the safety programs that  
13 EPA has engineered into those facilities, the types of  
14 materials that are, in fact, delivered to those  
15 facilities and do have the types of long lives that he's  
16 eluded to.

17 So I would say that I would have to join on  
18 board in his positive comments. And like him, probably  
19 there are people who will be surprised I would be saying  
20 those things. But I it is the appropriate thing to say  
21 and I have to agree with you.

22 CHAIRMAN DIAZ: Thank you, Commissioners

1 Merrifield and McGaffigan.

2 I think I need to add that there is one  
3 pleasant task that the Chairman occasionally has and  
4 that's to agree with his fellow Commissioners. And in  
5 this case, it is my pleasant task to agree with you.

6 With that, Commissioner Merrifield?

7 COMMISSIONER MERRIFIELD: Thank you,  
8 Mr. Chairman.

9 Well, as you know and as the staff knows, this  
10 is a briefing that I always look forward to because of  
11 the past history I have had with a lot of cleanup issues  
12 before my time here on the Commission. I want to  
13 acknowledge I think an awful lot of very good work has  
14 been accomplished by the members of the NMSS staff in  
15 concert with colleagues in NRR, and Research to assist them  
16 in resolving many of these difficult issues. And  
17 multifarious issues that come into this particular  
18 arena.

19 In terms of the presentation today, although  
20 the public and the individuals in this room would see  
21 the briefing sides, one of the things the Commission has  
22 been provided with is a very detailed background of the

1 types of activities that have been only touched on very  
2 briefly. And I think it really does put a good  
3 understanding of, in fact, what the NMSS staff is  
4 accomplishing, which is significant.

5 In the presentation you spoke, Marty, of the  
6 DOE acceleration of the amount of work that they are  
7 going to have relative to transportation applications in  
8 high-level waste over the course of the next several  
9 years. You talked of the 2005 to 2007 time period.

10 To the extent that it's not pre-decisional, is  
11 there anything additional -- you sort of touched on --  
12 is there anything additional you can share of about some  
13 of your own insights on what that may require?

14 MR. VIRGILIO: I would just say we were  
15 somewhat surprised and we will likely, if this goes as  
16 we predict, likely be reviewing both commercial and the  
17 DOE application side by side.

18 Bill might have some more insights to share  
19 about this.

20 MR. BRACH: As Marty had mentioned, we have  
21 had some preliminary discussions with DOE, some of which  
22 are not necessarily appropriate to discuss in open

1 forum. It is very clear first that the Department of  
2 Energy, for shipments of spent fuel to the repository, is  
3 required to make those shipments in an NRC-certified  
4 transportation package.

5       We have had discussions with the Department  
6 with regard to the current availability of  
7 transportation casks that are certified by the NRC and  
8 could be available to us to be use to transport spent fuel  
9 to the repository.

10       There are other materials that the Department  
11 of Energy is looking at that may not be necessarily be  
12 enveloped or be included in the cask contents for those  
13 certificates that have been currently approved. And  
14 it's that latter category that Marty has made reference  
15 to that may very well be additional workload. And we  
16 are anticipating additional workload of applications  
17 coming to us to envelope this other material that's not  
18 currently necessarily covered by the certificates we have  
19 issued today.

20       COMMISSIONER MERRIFIELD: This might be  
21 appropriate for you to provide additional information to  
22 me separately. But this, at least, raises the veil of a



1 notion that we may have significant resource challenges.  
2 Particularly in NMSS, we have had a fair number of those  
3 that have emerged in the last year. So I think we will  
4 need to keep very well tuned to make sure that we  
5 provide that which is necessary to make sure we stay on  
6 top of it.

7       We have had an issue, Marty, regarding some  
8 fuel rods at Millstone that went awry. Last year, the  
9 Commission reached a decision on this issue. But we  
10 agreed to delay issuance of our decision until  
11 Washington State had completed its own review.

12       At the time when we conducted that vote, I was  
13 under a general understanding -- I may be corrected on  
14 this -- that the state would be completed with their  
15 review in something like three months or so. There were  
16 delays that, for a variety of reasons, had pushed that  
17 to the end of calendar year 2003. Now the staff is  
18 projecting that we are going to be sometime in 2004.

19       I'm wondering what kind of issues are ahead of  
20 us right now. I think we, at some point, have got to  
21 close this issue out and move forward.

22       I'm just wondering if you can give me some

1 sense of whether have any type of a commitment from the  
2 state on this issue and when we may be able to get this  
3 put behind us?

4 MR. VIRGILIO: I think you said it but it bears  
5 repeating. We completed our safety evaluation. So, if,  
6 in fact, the rods are there -- and we don't know that,  
7 it could have gone to a number of places. But if they  
8 are there, there are no safety issues.

9 We have been waiting for the state to complete  
10 its environmental assessment of this issue. And the  
11 last time that I checked into this, the schedule was  
12 February. Here we are in March. John and I have been  
13 talking about this. I'm not exactly sure what we can  
14 do. They continue to give us commitments and continue  
15 to miss the scheduled date.

16 John, I don't know if there's anything more --

17 MR. GREEVES: It's almost that simple. I  
18 checked very recently and -- first, I would like to  
19 point out we have worked very well with the State of  
20 Washington, the State of South Carolina, EPA and others.  
21 And they helped us to put this SER and EA in place.  
22 It's all done.

1           But the wisdom is that the state is doing an  
2 environmental impact statement and they want to marry up  
3 -- they are finishing that with us putting out these  
4 documents in final.

5           Right now, the last word I have is March. The  
6 staff is not quite sure what that means.

7           COMMISSIONER MERRIFIELD: I'm glad your answer  
8 characterized it that way. Because I wouldn't want to  
9 leave any kind of an impression that -- and in fact, I  
10 have no doubt about the cooperative nature of the state.  
11 I met with those folks personally. I know that they are  
12 working very hard. So there's no take back to anyone on  
13 that.

14           But there is the issue there. And you like to  
15 close these things out and move forward. I did want to  
16 ask that.

17           Speaking of getting to resolution, I had the  
18 opportunity last year to visit the GE facility at Morris  
19 where they have a spent fuel pool. What is the current  
20 status of that? I know there were concerns about the  
21 degree to which -- whether it's our reasons or the  
22 licensee's reasons but that's dragged out a bit. Is

1 that something that we have on a pathway to  
2 determination one way or the other?

3 MR. VIRGILIO: This is a facility for which we  
4 are doing a review of the license, the license  
5 extension. There were some questions, some technical  
6 issues associated with the structures and components.  
7 And Bill and his staff have been following up on that.

8 MR. BRACH: GE Morris is a Part 72 licensed  
9 ISFSI. It is the only licensed wet storage ISFSI in the  
10 United States -- licensed by the NRC -- excuse me.

11 The license has been with the NRC for almost  
12 four years. And, yes, it is our oldest licensing case.  
13 There were earlier some decisions on our part that based  
14 on prioritization of work that delayed our early  
15 initiation on the review.

16 The current status of the review, it first is  
17 an active review underway right now. We had, just in  
18 the last few weeks, additional dialogue and discussions  
19 with GE. They will be coming back to us in the late  
20 spring early time frame with a new amendment to the  
21 renewal that very specifically identifies those structured  
22 systems and components that are important to the plant in

1 its current configuration, current operations.

2           The license was first issued more than 20  
3 years ago. And the fuel has cooled significantly since  
4 that time. And there are certain activities, certain  
5 equipment that maybe were considered 20, 20-something  
6 years ago that today's environment needs to be relooked  
7 at from the standpoint of its importance for renewal.  
8 That's being looked at by GE and we are anticipating  
9 that submittal, as I mentioned, late spring, early  
10 summer.

11           COMMISSIONER MERRIFIELD: Well, under our  
12 programs, where they applied in a timely way, obviously  
13 that continues -- that license continues until we  
14 consider it. And so I understand part of the reason  
15 that staff has made its decision to put that off.

16           One of the issues that is raised, however, is  
17 that for a licensee, while -- they can continue to  
18 operate during that period, while they are in the midst  
19 of trying to have their application reviewed, they have to  
20 continue to have lawyers and consultants and others at  
21 the ready, so to speak, to be able to respond to our  
22 questions. So it's not a -- it would appear to me, at

1 least in terms of what I have been hearing, it's not a  
2 no cost option for us to delay those types of things.

3       And I think that the message coming out of  
4 that is that we need to be sensitive. Even though there  
5 was a timely application and there was no penalty in  
6 terms of the on-going operations, there is some cost to  
7 the licensee in that regard by our having laid that out.  
8 So I would want to put that one out there.

9       I guess I will finish off with just a couple  
10 of comments and then turn it over to the Chairman.

11       We did not get into a great degree of detail,  
12 as Commissioner McGaffigan noted, on decommissioning  
13 issues. I would just mention one, if for nothing else,  
14 to round out what is the scope of things that NMSS has  
15 to deal with.

16       Another facility that I had an opportunity to  
17 visit this past year was the ship, the Savannah, which is  
18 currently moored in the James River in Virginia, which  
19 is undergoing a variety of activities by the reserve  
20 fleet and some other members of the federal family to  
21 determine where they are going to put the reactor from  
22 what was the only civilian floating reactor in the U.S.

1 So that is among the other issues that the NMSS will  
2 have to be dealing with in terms of, perhaps, future  
3 success stories.

4       So maybe next year you can update me in terms  
5 of where we are on that one.

6       I think, you know, one of the things that Marty  
7 mentioned is the notion that in each stop of your review  
8 process, there needs to be some value added. To layer  
9 on top of the comments made by Commissioner McGaffigan,  
10 in terms of looking at a different way of doing business  
11 relative to the upcoming review at Yucca Mountain, I  
12 think that is another area where insight and review of  
13 current processes is important.

14       We have very strict deadlines that Congress  
15 has for us. And I think as you get prepared for your  
16 activities in that review, I think you need to make sure  
17 that each of the steps and the individuals who are in  
18 that concurrence chain are, in fact, adding value and  
19 whether in light of the speed which is required of us by  
20 Congress, whether perhaps some of those might be  
21 narrowed a bit or de-layered a bit. I'm not certain.  
22 But I will want to engage with you later on on that

1 issue in person.

2           The last comment I would make regarding  
3 decommissioning -- I know I have spoken individually to  
4 Marty. He has mentioned has it's an important program.  
5 I agree that it's an important program.

6           One of the reasons it's important is because  
7 there is a pledge that I think has been made by our  
8 licensees which we are expected to follow. And that is  
9 that when a facility is built -- this goes particularly  
10 in the case of reactors, but other facilities that we  
11 regulate -- that at the end of the day when that  
12 facility is no longer needed for economic utilization,  
13 that there's a plan in place that will resolved that  
14 site and get it back to a point where it either goes  
15 back to a green field or is back into a condition which  
16 is usable in some way or another for the people who live  
17 or work in that community.

18           And I think for that purpose, we can't deny  
19 that we need to make sure we have our focus on that in  
20 order to fulfill that promise to the American people.  
21 And that is, indeed, a vital part in our important  
22 overall mission of protecting public health, safety and



1 the environment.

2 Mr. Chairman.

3 CHAIRMAN DIAZ: Thank you, Commissioner

4 Merrifield. I am also very, very gratified with the

5 tremendous amount of information that the staff has

6 provided. It kept me awake all night.

7 MR. VIRGILIO: Us too.

8 CHAIRMAN DIAZ: I have just one issue to take

9 a little bit of work away from you. The rest is adding

10 work, of course.

11 The first one is the significant amount of

12 information that's been identified -- 49 projects in

13 the waste area. And I'm sure there's some of those that

14 you believe are ripe for some sunseting and that they are

15 already not feeling well. And that they really need

16 to be gracefully retired.

17 Have you decided which one of those are ready?

18 Are you continuing to look at them? Is there any? Are

19 you going to have less work because you're doing that?

20 Or you have not done the work so you can have less work?

21 MR. VIRGILIO: Within NMSS it's a daily

22 challenge. I think that each one of the folks at the

1 table can attest to this. That new work emerges and we  
2 look at how can we either change the scope of or stop  
3 doing existing work because we have -- within this  
4 year's budget, we have a limited amount of resources.  
5 So there's always that constant challenge.

6 What you see in front of you are the  
7 survivors. The rest of them are already off the line.  
8 So there are many things that we look at --

9 CHAIRMAN DIAZ: Gee, I was hoping.

10 MR. VIRGILIO: I would too. We do  
11 collectively.

12 COMMISSIONER MERRIFIELD: Is the Chairman  
13 thinking of survivors as in the television program where  
14 each succeeding program there are fewer and fewer people  
15 around? Is that your thinking here?

16 CHAIRMAN DIAZ: That's exactly right.  
17 John, you want to add something?

18 MR. GREEVES: Can I maybe give some good news?

19 CHAIRMAN DIAZ: Yes.

20 MR. GREEVES: The Commission has terminated 24  
21 of these complex sites. I go to meetings here in this  
22 country, just came back internationally, and I can tell

1 that story about terminating 24 complex sites. No other  
2 country has that in the very near term.

3 GSA Watertown, the region just completed that  
4 and you did the paper review. So there's one that's  
5 terminated. And Saxton, I understand, is right around  
6 the corner. In fact, Saxton got an award today from the  
7 ANS as a historical landmark. And I'm told they are  
8 very close.

9 There are some coming off. Unfortunately,  
10 there's actually more in sheer volume coming at us, this  
11 legacy of the '50's, '60's and '70's, it sort of rolls  
12 forward.

13 COMMISSIONER MERRIFIELD: But I think there's  
14 a point to be said. Mr. Chairman, we have had a back  
15 and forth on information that the staff has been  
16 providing us about the universe of sites out there.

17 I think Marty's comment was right ahead of  
18 time. I think they have got a better understanding of  
19 what the universe of sites that we have. And I would  
20 agree with the characterization that they have been  
21 making progress in getting things off.

22 CHAIRMAN DIAZ: I just need to push a little

1 harder. That's all.

2 Let me get out of that and let you be  
3 until next year. There are not going to be 49, right?

4 We see a few significant things in your  
5 horizon, you know, like high-level waste, if the DOE  
6 submits the license and the LES and the USEC and the MOX  
7 -- I mean, these are really seriously significant  
8 projects. But as you look at the totality of them and  
9 you now know or have a historical perspective of what is  
10 coming, is there anything out there that you have heard  
11 or see that we have not heard of that might impact your  
12 resources?

13 MR. VIRGILIO: I get surprised everyday.

14 CHAIRMAN DIAZ: That is precisely the reason  
15 for my comment, Marty.

16 MR. VIRGILIO: There is no planning wedge. We  
17 don't, within our budget, reserve anything for these  
18 surprises. It's a matter of policy the way we do  
19 budgets.

20 What we do is go through this process of  
21 shedding work, changing scope, making adjustments.

22 CHAIRMAN MCGAFFIGAN: Mr. Chairman, a year ago

1 at this meeting the idea that they would have -- and  
2 this is really more for next week -- but the idea that  
3 they would have both LES and USEC with full blown  
4 applications before them for the next fiscal year, we  
5 didn't foresee it. We didn't even budget for it, the budget we  
6 just submitted.

7         And I think that Marty is -- it's a lot easier  
8 in reactor space to predict what's coming than it is in  
9 material space to predict what's coming. So I think  
10 they have to be more flexible.

11         CHAIRMAN DIAZ: I realize that. But I'm not  
12 trying to make their life easier.

13         MR. VIRGILIO: I think today, Chairman, we  
14 have touched on the a few of them. I think the greater  
15 than Class C waste. Some of the ones we haven't touched  
16 on are waste incidental to reprocessing.

17         There are some things out there that are  
18 looming. That if, for example, on waste incidental to  
19 reprocessing either the court case resolves the issue or  
20 legislation resolves the issue. It could present a huge  
21 wave of work into our area that -- and we have estimated  
22 it.

1 John's done good work with the staff to say,  
2 well, what would the resource burden be if this actually  
3 were to come to past. And it's significant.

4 CHAIRMAN DIAZ: I see.

5 CHAIRMAN MCGAFFIGAN: Mr. Chairman, the  
6 legislation last year said with NRC approval, or words  
7 to that effect, it wasn't just consult. And that  
8 implied a very laborious process.

9 CHAIRMAN DIAZ: I understand. I just want to  
10 make sure that there is a realization that there are  
11 things that are happening. And it might be, as I asked  
12 the DEDOs to look at their budgets, that they look at  
13 the issues in a cross cutting manner.

14 All right, let me go to my next issue. And I  
15 think you touched on it a little bit.

16 You said several times that you are going to  
17 be looking at what issues are Commission issues or  
18 policy issues so that they can be brought up. And of  
19 course, we know the senior managers do this. But then  
20 we talk about internal communications.

21 I think one of the things that we need to get  
22 better at is having staff that are working on issues to

1 become sensitive to what kinds of issues can become or  
2 should become Commission policy so that communication  
3 can take faster. So maybe if there is an issue of  
4 concurrence that is going to take place but really at  
5 one point that information coming up might be  
6 accelerated. That training needs to happen.  
7 We need to sensitize because there are so many of them,  
8 especially in your area, with such a variety that having  
9 that sensitivity not only at the senior manager's level  
10 but below, might be an important improvement in our  
11 internal communications.

12       So I think it's an issue that you need to  
13 consider.

14       MR. VIRGILIO: It's an area where I feel like  
15 the sensitivities are increasing. If you think about  
16 the daily EDO notes that come forward, it's a rare  
17 occasion where either Margaret or I have to step into  
18 the process and say, send us a note on this, that or the  
19 other thing. It comes up from the staff today. So I  
20 think they are identifying the potential policy issues  
21 early on. They are identifying the key meetings that we  
22 are participating in and summarizing those meetings for

1 the Commission.

2           So I feel very good about the level of  
3 maturity of the organization in that regard.

4           COMMISSIONER MERRIFIELD: Mr. Chairman, I  
5 think you raise a very good point in this regard. And  
6 this is not an issue that goes just to NMSS. But I  
7 think it's a general area and one that we may want to  
8 opine in an SRM coming out of this meeting.

9           Occasionally what happens is the Commission  
10 will get a paper, a SECY paper from the staff or an  
11 information paper, which will have embedded within it  
12 comments the staff will assume, unless otherwise, that  
13 it won't have a certain meeting next year, it won't have  
14 a certain report next year. Policy like issues that  
15 would require Commission consideration that might --  
16 staff have them in there but sometimes they are buried.

17           And we may want to, just to make things  
18 clearer and easier for the Commission, to make sure that  
19 the papers that come to the Commission that would seek  
20 policy guidance would clearly articulate that in a  
21 separate section so we wouldn't have to always dig  
22 through a 50-page paper to identify things that we need



1 to be really concerned about.

2 CHAIRMAN DIAZ: I think that that is correct.

3 But that sensitivity needs to start right at the level

4 in which --

5 COMMISSIONER MERRIFIELD: Oh, absolutely. But

6 I think that one function may force the other.

7 CHAIRMAN DIAZ: Yes. I believe so.

8 MS. FEDERLINE: If I could just add. We have

9 implemented a process in NMSS where when a new issue is

10 identified, we outline all the issues that pertain to

11 that and work the alignment up through senior management

12 to determine if any of those issues need to go to the

13 Commission early for early policy guidance before the

14 detailed work is done.

15 We have done that on Part 63 and there are

16 several in front of the Commission now.

17 CHAIRMAN DIAZ: Thank you.

18 Let me touch on high-level waste because it's

19 such a small issue. Commissioners McGaffigan and

20 Merrifield both touched on it. But let me get back to

21 KTIs.

22 And specifically, we have been

1 hearing for years about igneous activity or vulcanism as one of  
2 the issues that remains in there. And just coming from  
3 the grapevine, I think we need to at the present time  
4 make an additional effort in clearly telling  
5 our colleagues at DOE that the early presentation and  
6 the quality of presentations of the remaining issues it  
7 is fundamental for the NRC to be in a position to start  
8 working in a license if the license is submitted. You  
9 know, I think we have done that.

10 But I wonder if it's not necessary at the  
11 present time to go on a step further and officially just  
12 inform them that we think it's an issue. I know you  
13 have done it. But I wonder if we don't need to go a  
14 step further.

15 MR. VIRGILIO: Let me just sort of outline  
16 again and remind you what we have done. Carl has  
17 engaged at his level to make sure they understand the  
18 significance of this. It's in two pieces. We are  
19 dealing with the probability and we are dealing with the  
20 consequence piece.

21 And in the last quarterly management meeting  
22 with Margaret Chu, we raised the issue again about

1 schedules and completeness of their analysis and  
2 ensuring that they meet the schedules. We are expecting  
3 some information to come into to us in the March time  
4 frame on the probability and later in the year with  
5 regard to the consequence analysis. So we have made  
6 public statements in the meeting to make sure we put  
7 them on notice.

8 And I know Bill and the staff have also done  
9 this.

10 CHAIRMAN DIAZ: I'm saying that mainly in the  
11 SRM we will ask you to convey that in a form that it  
12 cannot be just considered just a normal routine  
13 communication, but it's beyond that.

14 Okay.

15 Let's see. On slide four we talk about the  
16 high-level waste, the program infrastructure. We talk  
17 about from the potential of emerging issues in  
18 this area. Is there any emerging issue that  
19 is causing you more heartburn than others?

20 MR. VIRGILIO: I would say the transportation  
21 issue is the one today. If I would say, which is the  
22 emerging issue that really has you concerned, and we

1 spoke about that and the potential to have to review  
2 addition cask designs. It's clearly not anticipated  
3 work, clearly not budgeted work. It represents a  
4 technical as well as a management challenge to get that  
5 work done.

6 CHAIRMAN DIAZ: You know, that is information  
7 that we need to have at least quantified because the  
8 Commission is now taking a real deep look at what are  
9 the needs of the agency so that we are able to fulfill  
10 our obligations. So don't delay if you believe this is  
11 an area that we need --

12 MR. REAMER: Just one other would be level of  
13 detail of information with respect to the surface  
14 facility design as well.

15 We have met with DOE as recently as early  
16 February. Their design of the surface facility is still  
17 developing. They talk about it being complete for  
18 purposes of the license application this month.

19 So then the question of the level of detail of  
20 information that they will provide to us with respect to  
21 the surface facility will continue to emerge as one we  
22 want to track closely.

1 CHAIRMAN DIAZ: All right. That certainly  
2 becomes an issue. All right.  
3 Let me go to slide five.  
4 And LES and USEC have risen from where they  
5 were and now they are right here staring us in the eyes.  
6 Are there any significant issues that the Commission had  
7 somehow prioritized or you had prioritized that might be  
8 delayed because of the need to get these two  
9 applications in a manner that the Congress was thinking  
10 or the Commission had been thinking?

11 MR. VIRGILIO: Yes. Jumping ahead to next  
12 week where we are going to talk about the materials  
13 arena activities, from the technical review side,  
14 clearly we did not expect two applications. Nor did we  
15 anticipate the compressed schedule that Congress has set  
16 upon us, the expectations we have there.

17 So this presents a very significant resource  
18 challenge in 2005, because that's when we will have both  
19 applications in front of us. We are going to have to,  
20 without additional resources, sort of see  
21 where 2005 shakes out, we are going to have to go into  
22 some of our licensing review work. We are still

1 evaluating options.

2           But specifically, one of the options that we  
3 are looking at is some of the ISA review work that we  
4 had. It's not a matter of being able to shift  
5 resources -- you know, if I could shift them from John  
6 into this area. I mean, they are technical skills,  
7 critical technical skills that I have to have, that Bob  
8 Pearson absolutely needs to have in order to deliver the  
9 technical review.

10           So that's a specific challenge on that side  
11 that we are working.

12           If I now come back to this arena and think  
13 about the environmental impact statement that John has  
14 got to deal with, again, we are dealing with critical  
15 technical skills. So he has got to look -- we have all  
16 got to look very carefully at the what case work we  
17 have. And this is where I was sort of eluding to.

18           We have got -- you know, absent additional  
19 resources in this area, we are going to have to make  
20 some tough decisions about what case work might not be  
21 done. Then you think about where Commissioner  
22 Merrifield was about our responsibilities to the public.

1 We are very confined in terms of options because of the  
2 skill issues.

3 CHAIRMAN MCGAFFIGAN: There are a couple of  
4 things that move out in the other direction that help  
5 you. Like I don't discern vast progress at West Valley  
6 unless I have missed something lately. You are a  
7 cooperating agency there. But is there really going to  
8 be a draft DIS for you -- the two parties that have to  
9 produce that are certainly skirmishing still.

10 MR. GREEVES: We have some measured progress  
11 there. What is going to come at us is the  
12 decommissioning plan. We have come to alignment with  
13 DOE and NYSERDA -- what we call the regulatory round table there for  
14 them to put together a decommissioning plan. And it's  
15 somewhat the same resources that do the decommissioning  
16 plan review and those performance assessments and Scott  
17 Flanders' people that do the EA work.

18 So this is all coming at the same time that  
19 LES, USEC demands are being laid on us. So that's what  
20 I am --

21 CHAIRMAN MCGAFFIGAN: There are no good news  
22 stories, other than getting rid of some of these old

1 complex sites.

2 CHAIRMAN DIAZ: I guess it used to be  
3 location, location, location. Now it's management,  
4 management, management. That's what it all boils down  
5 to.

6 Greater than Class C. It's my understanding  
7 that you have now received an invitation from DOE to  
8 serve as a cooperating agency on this issue. How do you  
9 plan to engage with them?

10 MR. VIRGILIO: That particular issue is, in  
11 fact, being discussed as to what our roles and  
12 responsibilities would be. We are working cooperatively  
13 with OGC to make sure that, given our responsibilities  
14 under the Act, that we don't cross any lines if we agree  
15 to be a cooperating agency.

16 MR. BRACH: As I said earlier, we are  
17 talking to them. I think there was some expectation  
18 that we would. But I really defer to OGC. I'm not sure  
19 we can be a cooperating agency on something we are going  
20 to license. So that dialogue is going on.

21 CHAIRMAN DIAZ: Madame?

22 MS. CYR: I will have to get back to



1 you on that. I know it's an issue but I'm not up on  
2 what the recent discussions are with my staff on that.

3 CHAIRMAN DIAZ: That's fine.

4 ACNW. It isn't clear from the background  
5 information that you have been communicating with ACNW  
6 since last year on the testing option that the  
7 Commission needs to use or slide seven, where we are  
8 talking about the storage and transportation and PFS and  
9 so forth.

10 I assume that is part of your plan or maybe  
11 you have kept them abreast because we have to meet with  
12 them soon and they apparently will need to be pretty  
13 much up-to-date on these issues.

14 MR. VIRGILIO: We are working with the ACNW.

15 As a matter of fact, tomorrow we have a significant  
16 meeting with them, with Carl and other senior agency  
17 officials.

18 In our area, we are really trying to focus on  
19 schedule of activities with the ACNW what activities do  
20 we want to engage in, when, and what do we expect out of  
21 that engagement?

22 One of our challenges, I think, is to clearly

1 read the Commission's interest in all of this as well.  
2 That's an area where I believe that you could help us to  
3 make sure that when you set expectations on them, that  
4 we all have a visibility of those. Because sometimes I  
5 am not absolutely clear. And sometimes there is tension  
6 because they feel like they have to meet your  
7 expectations and I'm saying, but I'm not necessarily in  
8 need of your assistance at this point in time on this  
9 particular project.

10 But we have a rolling schedule now and we have  
11 laid out what issues are we going to engage with them  
12 on. And we are getting more clarity about what is it  
13 that we want from those engagements.

14 And I think we have a very good relationship.  
15 Margaret and I meet with the ACNW principals  
16 occasionally. I know the staff makes presentations  
17 before them. And we enjoy the critical feedback. It's  
18 really important that we have criticism of our programs.  
19 It makes us stronger. That makes us better.

20 So we look forward to those engagements.

21 CHAIRMAN DIAZ: They do have, obviously, an  
22 expertise that the Commission values. And we want to

1 make sure they are kept up-to-date. And we can see that  
2 one is your obligation. And I'm sure you consider it  
3 likewise.

4 Let me go to international issues.

5 COMMISSIONER MERRIFIELD: I don't want to over  
6 lure this. It's important you have a critical analysis  
7 of your program, not criticism of your programs.  
8 Hopefully you have a program that wouldn't be subject to  
9 criticism but would meet that critical analysis.

10 CHAIRMAN DIAZ: Thank you, Commissioner  
11 Merrifield.

12 International. You mentioned the issue, the biota  
13 IAEA action plan of protection of the environment.  
14 Commissioner McGaffigan made a statement about EPA.

15 I want to make a statement on this issue. I  
16 consider that there's so many very, very good issues  
17 that deserve so much of our attention for radiological  
18 protection of people and releases to the environment  
19 that to take into consideration of the protection of  
20 the biota. At the present time, you know, imposes a  
21 burden that is beyond what I believe we can handle  
22 without compromising other work.

1           So I'm not so sure that this is an issue which  
2 I consider of very high priority in my scale of doing  
3 things.

4           CHAIRMAN MCGAFFIGAN: Mr. Chairman, I will  
5 join you. And I commend -- Margaret recently was at a  
6 meeting. Is the documentation of that meeting all  
7 public?

8           MS. FEDERLINE: Yes.

9           CHAIRMAN MCGAFFIGAN: I think that Margaret  
10 and the staff with her did a good job in trying to make  
11 our position clear. And I think that it's a unanimous  
12 position of the Commission that at the current time, we  
13 still have not seen any convincing evidence that if we  
14 follow our rules in terms of protecting humans, that we  
15 are putting any species in any danger whatsoever.

16           We understand that there is an impetus  
17 elsewhere. But I agree entirely with the Chairman that  
18 in the scheme of things, given the list of things that  
19 we have to do in the coming years and the priorities  
20 that we have already established, that would be a very,  
21 very low down the list unless the people who are  
22 propounding the more extreme views have some evidence

1 that would back up their position.

2 COMMISSIONER MERRIFIELD: Let me pile on this.

3 This was a uniform view of the Commission. I think that

4 one of the concerns was that there was not a

5 demonstration that the standards for the protection of

6 public health and safety, which have always been

7 considered to be inclusive of protection of the

8 environment, were somehow under challenged for not

9 protecting the environment.

10 There really was no information that was

11 provided to us that would lead credence to the

12 notion of needing to go forward with this new program.

13 So I agree. I think we felt it was not

14 necessary. Now, we have, obviously, instructed our

15 staff that as an important member of an international

16 community, we need to be actively involved in the

17 development or at least the discussion of how this may

18 go forward.

19 From my standpoint, I think it raises very

20 significant concerns about legal application in this

21 country which may be far different than the legal

22 framework which is used on the continent. I mean, this

1 is a program which is being principally fueled by our  
2 partners in Europe, particularly northern Europe who  
3 have a very significantly different legal framework than  
4 we do for the environment.

5         And while it might be something which is  
6 perfectly applicable for application in some countries,  
7 would create significant legal questions and hindrances  
8 in this country.

9         So I think -- this is one that the Commission  
10 clearly has focused on. I think we have all voiced  
11 concerns about it. But certainly want to make sure that  
12 we have our staff engaged so that the views that we have  
13 are certainly reflected in the direction of wherever  
14 this --

15         CHAIRMAN MCGAFFIGAN: As I said, Margaret may  
16 want to comment. But I think she did a good job in  
17 moving this in our direction.

18         The work program that's laid out is much more  
19 sensitive to the views that we have expressed today than  
20 I think the work program going into that meeting, the  
21 draft work program indicated.

22         COMMISSIONER MERRIFIELD: Not to belabor this

1 too much. But one of the theories that has been bounced  
2 around by some who are proponents of this is that in  
3 order to come up with an analysis for biotic and  
4 anti-biotic species, is you could have a few species  
5 that you could select which would be reflective of the  
6 environment, reference species.

7       As a country that encompasses the tropical  
8 environment of Hawaii to the arctic environment of Alaska  
9 on to Death Valley and everything in between, the notion  
10 of our being able to pick a few reference species to  
11 evaluate this for the purposes of the United States is  
12 laughable. It's laughable.

13       So what's applicable for a single country with  
14 basically a single climactic condition is not at all  
15 applicable to a country such as the United States.

16       CHAIRMAN DIAZ: I'm almost sorry I brought  
17 this subject up.

18       COMMISSIONER MERRIFIELD: I'm glad you said  
19 almost.

20       MS. FEDERLINE: I would just like to very quickly  
21 comment on how helpful to us it was to have the  
22 Commission's views. It made our participation in the

1 meeting much more effective. So we really appreciate  
2 your involvement.

3       And before the June meeting we will be  
4 engaging you again to make sure we have the right  
5 message.

6       CHAIRMAN MCGAFFIGAN: It's our understanding  
7 that you did have significant support from some other  
8 nations for the sort of views that you were expressing  
9 on your behalf.

10       MS. FEDERLINE: Unfortunately, those nations  
11 were not there. We had to research them out of  
12 transcripts.

13       But, yes, there are a number of other nations  
14 that do agree.

15       CHAIRMAN MCGAFFIGAN: This happens in  
16 government, both here and in international  
17 organizations. It is the folks who show up are the ones  
18 who are pushing the agenda.

19       COMMISSIONER MERRIFIELD: Mr. Chairman, again,  
20 not to belabor the subject. We collectively made an  
21 initiative a few years ago to be more directly involved  
22 with our staff in their international missions in terms



1 of making sure that we had a good dialogue between the  
2 Commission and the staff so that we could arm them with  
3 more tools and more information for them to be more  
4 active in engaging internationally.

5         And I'm glad Margaret made that comment. I  
6 think it's reflective of a new dynamic this Commission  
7 has taken in its international involvement. And I think  
8 this is a really good way for us to go.

9         CHAIRMAN DIAZ: Thank you very much.

10        And my last comment, of course, if I wouldn't  
11 do it you wouldn't feel good, is regarding communications, openness and  
12 public confidence. And the fact that, although reactors  
13 have always taken so much attention in this agency, I  
14 believe you are about to, you know, be almost as  
15 popular.

16        And that popularity brings with it the  
17 responsibility to maintain what the Commission has set  
18 for the staff our goals of, you know, earning the public  
19 confidence by putting out there very clearly the things  
20 that we do, the bases, and being able to communicate.  
21 And I think that is a consistent message that, I think,  
22 my fellow commissioners agree, is important. It is

1 going to be tremendously important as all of these  
2 activities that are big activities, you know, and even  
3 the day-to-day things that we discussed with ACMUI and the patients..

4 All of those touched American people and they  
5 are very important to us. So a special sensitivity and  
6 awareness of the need to earn their trust and to  
7 communicate well is indispensable.

8 COMMISSIONER MERRIFIELD: I'm sorry to do this  
9 to you. One last thing I forgot to ask, and just a  
10 brief comment.

11 I had a briefing recently from a couple of  
12 folks from DOE and NNSA who came in to talk a little bit  
13 about the DOE source recovery program. That's been a  
14 very active program that we have had underway.

15 It seems to me to be one that it is one that  
16 is, I think, a success story. I don't know if you can  
17 make a couple of comments about your own view of that.  
18 But that was my sense of what they have been telling me.

19 MR. VIRGILIO: I see it as a model program in  
20 terms of our relationship with DOE. We have worked very  
21 well. You think about where we were when the program  
22 kicked off a little over a year and a half ago, maybe.

1 We had a number of sources identified. These sources  
2 were either unwanted -- mostly unwanted, some abandoned.

3 And they have almost already reached the goal  
4 that we set back then of 500, collecting 500 of these  
5 sources.

6 So once the -- and they are obligated, I  
7 think, to finish this up by the end of this fiscal year.

8 But I would expect, based on the progress they are  
9 making today, that they will meet the 500 goal probably  
10 within the next month or so.

11 Now we shift into a maintenance mode where DOE  
12 will go forward and collect the sources that are  
13 unwanted and abandoned. And I think there may have been  
14 some maybe confusing information in the background  
15 material. I think what we are looking at is maybe about  
16 500 unwanted sources per year. That's our best  
17 projection. And maybe a half dozen abandoned sources,  
18 orphaned sources, if you will.

19 But it's a great program. We really have  
20 appreciated their support. They have helped us out in a  
21 number of significant areas.

22 COMMISSIONER MERRIFIELD: As I was reflecting

1 on all the nice comments we made about EPA, I thought it was  
2 only appropriate to book in that with also some very  
3 nice things to say about a very good program we have  
4 with DOE.

5 CHAIRMAN DIAZ: I certainly appreciate it.  
6 And with that, I want to thank the staff for a very good  
7 meeting. We do realize that you have three quarters of  
8 your plate full, or is it five quarters? I am not going  
9 to get in there.

10 But whatever it is, we do realize that you are  
11 busy. We realize that you actually have a tremendous  
12 amount of decisions to make. We urge you to come to the  
13 Commission early in any way that we can expedite your  
14 work, in any way that we can, maybe, take some of the  
15 decision-making early so the staff can focus their  
16 resources better on what need to be done, rather than  
17 sometimes we all let things go because we  
18 think that we can do it better, maybe a little earlier  
19 might help you do your work better.

20 And I'm sure my fellow Commissioners share in  
21 my comments that we do need to make -- not your load  
22 easier but you to be able to work more effective.

1 We are adjourned.

2 (Thereupon, the briefing was adjourned.)

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