

# **NUCLEAR REGULATORY COMMISSION**

Title: Briefing on Status of Nuclear Waste Safety

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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BRIEFING ON  
STATUS OF NUCLEAR WASTE SAFETY

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NUCLEAR REGULATORY COMMISSION

1 White Flint North

Rockville, Maryland

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MONDAY

March 4, 2002

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The Commission met in open session,  
pursuant to notice, at 2:00 p.m., the Honorable  
RICHARD A. MESERVE, Chairman of the Committee,  
presiding.

COMMISSIONERS PRESENT:

RICHARD A. MESERVE, Chairman

NILS J. DIAZ, Member

GRETA J. DICUS, Member

JEFFREY S. MERRIFIELD, Member

EDWARD MCGAFFIGAN JR., Member

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1 STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

2 HUBERT J. MILLER, RGN-I/ORA

3 DR. CARL PAPERIELLO, EDO

4 DR. WILLIAM TRAVERS, Deputy Director, NMSS

5 MARTIN J. VIRGILIO, Executive Director of  
6 Operations

7 STAFF:

8 PAUL BOLLWERK, ASLBP

9 JOHN GREEVES

10 WILLIAM REAMER

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# C-O-N-T-E-N-T-S

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

(2:03 p.m.)

CHAIRMAN MESERVE: Office of Nuclear Materials Safety and Safeguards in the regions on the status of programs in the nuclear waste safety arena. Since our last meeting a year ago a number of events have occurred that have significantly impacted activities associated with this arena. Foremost were the events of September 11.

Although the waste arena may have been affected somewhat less than some of our other activities, there nonetheless were a whole series of areas having to do with the transportation of source, byproduct and waste material that were an important part of our post September 11 activities.

The second remarkable occurrence has been the President's decision to proceed with Yucca Mountain subject to approval by the Congress. We are perhaps one step closer to receiving a license application which of course will require very substantial NRC attention if it occurs.

The active activities encompassed by the waste arena also attract substantial public attention not only with regard to September 11 types of events and Yucca Mountain but also generally the activities

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1 in which we engage to do with the decommissioning of  
2 the facilities. As a result we very much look forward  
3 to hearing about your accomplishments in this arena,  
4 this year's plans and any emergent issues that will  
5 face the commission over the coming year.

6 Dr. Travers, you may proceed.

7 DR. TRAVERS: Thank you, Chairman. In  
8 fact in accordance with your opening statement, that's  
9 what we intend this afternoon with me and Carl  
10 Paperiello, who is the arena manager is going to begin  
11 the briefing and introduce the principle internal  
12 stakeholders here at the table.

13 I should mention that behind us are a  
14 number of principle internal stakeholders: NMSS, NRR,  
15 state programs and research. With that, Carl.

16 DR. PAPERIELLO: Thank you. The staff  
17 presentation this afternoon will be made by Mr. Marty  
18 Virgilio, Director of NMSS and Mr. Hub Miller, the  
19 Administrator of Region 1. If I could have the first  
20 slide.

21 I'm going to come back to this slide at  
22 the conclusion of the presentation. For now, I would  
23 like to point out to the Commission that this arena  
24 presentation is going to discuss a number of programs  
25 which have many of the four overarching issues which

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1 are presented in these slides. Mr. Virgilio.

2 MR. VIRGILIO: Thank you. Good afternoon.  
3 On slide three, we've outlined the briefing topics  
4 that we're going to touch on today: High level waste  
5 storage and disposal, Transportation, Decommissioning,  
6 Low level waste disposal and some Other Issues that I  
7 thought we would speak about.

8 If you move to slide four under High Level  
9 Waste Storage and Disposal, I'll talk about  
10 Independence Spent Fuel Storage Installations and  
11 Central Storage, Resolving the High Level Waste Key  
12 technical issues, rulemaking and guidance development  
13 and High Level Waste Repository hearing issues. First  
14 with respect to the Independence Spent Fuel Storage  
15 Installations and Central Storage.

16 What we're seeing is an increasing need on  
17 the part of our stakeholders particularly the reactor  
18 licensees for drycast storage of spent fuel.  
19 Operating reactors need to maintain storage space from  
20 their spent fuel pools in order to provide a full core  
21 off-load capability. Those reactor facilities  
22 undergoing decommissioning want to empty their spent  
23 fuels expeditiously to proceed with reactor site and  
24 facility and dismantlement and decommissioning.

25 Our role here is to assure that there is

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1 an adequate, effective and efficient regulatory  
2 program in place to keep pace with this expanding use  
3 of drycast storages spent fuel. Our pending policy  
4 issues in this area for the Commission include changes  
5 to Part 72, a seismic rulemaking. This will align our  
6 program in approach with what's used in reactor  
7 licensing today and also a final decision on private  
8 fuel storage when the hearings in this area are  
9 complete.

10 The second bullet on that slide is  
11 Resolving High level waste Key Technical Issues. The  
12 KTIs are nothing magic. It's just been basically the  
13 staff's method for organizing numerous first-of-a-kind  
14 technical issues associated with a possible High level  
15 waste repository. The staff's objective here is to  
16 ensure that there is adequate integrated technical  
17 basis that is provided to demonstrate compliance with  
18 the performance requirements of our Part 63.

19 Staff is actively monitoring and  
20 interacting with DOE on these key technical issues and  
21 associated agreements as part of our prelicensing  
22 interactions that were required under the Nuclear  
23 Waste Policy Act. The focus of these interactions  
24 with DOE is to provide guidance on the information  
25 that is needed for a sufficient license application

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1 consistent with our long-standing expectation for a  
2 high quality license application. DOE needs to keep  
3 pace and keep emphasis on its efforts to provide  
4 information required to address the agreements in  
5 these areas.

6 We seek a high quality license application  
7 in order to support a timely decision by the NRC on a  
8 High level waste repository. Our regulatory approach  
9 here in High level waste considers risk insights from  
10 a systems perspective, and this is based on our  
11 performance assessments and insuring that DOE has an  
12 adequate technical understanding of the repository  
13 system, the geologic setting. Our review will in fact  
14 be graded based on the significance of the issue to  
15 repository performance.

16 With regard to Rulemaking and guidance  
17 development the third bullet on the slide, I've broken  
18 that into two parts. First, focusing on Part 72.  
19 Looking at the process we use here, casks are approved  
20 for use through rulemaking. Our Part 72 rulemaking  
21 process for drycast storage for new certificates and  
22 amendments is a very active program area. The  
23 rulemaking activity in this area is expected to remain  
24 very high over the next several years as vendors  
25 continue to develop new casts and canisters to meet

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1 the continuing growing industry needs that I spoke of  
2 earlier.

3 Staff continues to refine our regulatory  
4 guidance in this area to address technically complex  
5 issues such as the storage of high burn-up fuel and  
6 expanded use of burn-up credit.

7 The other area I wanted to talk about here  
8 is High level waste Rulemaking and guidance  
9 development. Here it's Part 63 of the Yucca Mountain  
10 Review Plan. We continue to need to keep pace with  
11 our National High level waste Program. The Yucca  
12 Mountain Review Plan plays a key role in assuring that  
13 we have a risk informed license application review  
14 process. It's needed for the ongoing prelicense  
15 interactions that we have to support this objective.

16 NRC needs to complete the develop of the  
17 Yucca Mountain Review Plan and continue to interact  
18 with our stakeholders on the plan and consider and  
19 respond to their comments. I'm pleased to note that  
20 on Friday, the Yucca Mountain Review Plan was posted  
21 on NRCs public website.

22 A pending policy in this issue in this  
23 area is provided in terms of amendment to  
24 quantitatively define unlikely events. This is a  
25 proposed Rulemaking to Part 63. This proposed

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1 Rulemaking is currently in the public comment process.

2 The last thing in this area that I wanted  
3 to touch on was the High level waste repository  
4 hearing. The Nuclear Waste Policy Act mandates that  
5 the High level waste repository construction and  
6 authorization proceedings including a hearing be  
7 completed within a three year time period with an  
8 option for a one year extension if there is timely  
9 notice provided to Congress.

10 We recognize that automation is a key to  
11 achieving this three year hearing schedule. There are  
12 a number of initiatives in this area that go to  
13 automation. First, the Discovery Related Licensing  
14 Support Network. This became operational in October  
15 of 2001. We're in the process now of developing  
16 capabilities of an electronic motions practice,  
17 electronic information exchange and electronic  
18 harrying docket. We're also working with DOE to  
19 provide guidance to DOE on developing an electronic  
20 High level waste repository license application.  
21 Finally, we're developing a digital data management  
22 system process to make the electronic hearing docket  
23 that I spoke of earlier available in the Hearing Room.

24 That's all I wanted to speak about on that  
25 slide. If you would turn to slide five please, I'll

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1 talk about spent fuel transportation issues,  
2 interagency coordination and IDEA coordination and  
3 standards.

4 First in the area of Spent fuel  
5 transportation, NARCS role here is to certify the  
6 package designs approved, the package Q/A programs,  
7 approve physical protection plans and conduct  
8 inspections. We work cooperatively in this area with  
9 the Department of Transportation. I would like to  
10 note there has been approximately 1,300 spent fuel  
11 shipments in the U.S. over the past 20 years. None  
12 have involved package failures. Notwithstanding this  
13 good safety record that this area is receiving  
14 significantly public and stakeholder attention as we  
15 make additional milestones in the National High level  
16 waste Program and the staff completes its review of  
17 the private fuel storage application.

18 State government officials and state  
19 elected representatives to Congress have focused on  
20 the safety and safeguards of transportation issues.  
21 The staff is focused today on addressing the technical  
22 issues and stakeholder concerns that have come up in  
23 this area. We're doing a number of things that I just  
24 wanted to recognize.

25 We're developing an outreach communication

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1 plan to interact with the stakeholders. We're  
2 currently supporting a national academy's national  
3 research council study on the safety of  
4 transportation. We working with research, I'll speak  
5 a little bit more of this later, are working on what  
6 we call a "package performance study" which includes  
7 significant public participation and will likely  
8 include testing of cask and cask materials for  
9 validating the modeling codes and underlying  
10 assumptions that we have on cask performance in severe  
11 accident conditions. We're also conducting an  
12 analysis of the recent Baltimore Tunnel fire to  
13 confirm the acceptability of our programs in light of  
14 this event.

15 With regard to Spent fuel transportation  
16 and Interagency coordination, our regulations in this  
17 area for transportation in the U.S. are shared among  
18 multiple federal agencies and DOT as I mentioned  
19 earlier is responsible for hazardous material shipment  
20 safety and routing. NRC maintains a close staff and  
21 management coordination with DOT and Department of  
22 Energy and state agencies in this area. Recent  
23 experience in some of the post 9-11 activities and  
24 follow-up on some recent transportation incidents have  
25 shown the need for closer coordination with other

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1 agencies such as U.S. Customs and additional  
2 components within the Department of Transportation and  
3 Department of Energy.

4 We're also supporting DOT and DOE in other  
5 transportation activities. We conduct technical  
6 reviews for DOT to support revalidation for  
7 uncertified packages for import and use in the United  
8 States. We're also conducting technical reviews of  
9 packages under reimbursable agreements with the  
10 Department of Energy to assist in the return of spent  
11 fuel to the U.S. which supports our U.S.  
12 nonproliferation goals.

13 Under IDEA standards, NRC and DOE  
14 regulations are based primarily on IDEAS  
15 transportation safety standards. These are  
16 periodically revised and updated. NRC and Department  
17 of Transportation are currently promulgating proposed  
18 changes to the U.S. Domestic Transportation  
19 Regulations to incorporate the most recent IDEA  
20 standards.

21 U.S. and broad international use of the  
22 IDEA Transportation Standards support an efficient and  
23 safe international nuclear regulatory commerce. IDEA  
24 standard development is an area of growing interest  
25 and growing demands on the staff. NRC is increasing

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1 its representation at the IDEA in the agency's  
2 transportation setting committees and working groups.  
3 This is in an effort to ensure our domestic and  
4 international goals are met.

5 If you turn to the next slide please.  
6 Slide six. I'm going to talk about some  
7 Decommissioning issues. Restricted release, Financial  
8 assurance, Interagency coordination and l1.e.(2)  
9 material.

10 First, with regard to Restricted release  
11 and institutional controls. One of the issues that  
12 we're grappling with today is third party enforcement  
13 of institutional controls which is a provision of our  
14 Part 20, decommissioning requirements. While this has  
15 been in effect for some time to date licensees  
16 considering restricted release for complex sites have  
17 not been able to find a third party to assume  
18 responsibility and liability.

19 NRC and DOE have been working  
20 cooperatively to draft a memorandum of understanding  
21 in this area. However DOE has recently put a further  
22 memorandum of understanding developments on hold while  
23 we reexamine policy options. I would note that we  
24 were working under Section 151-B of the Nuclear Waste  
25 Policy Act of 1982 which allows but does not require

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1 DOE to assume control of these types of sites.

2 DOE is now recommending that DOE and NRC  
3 work cooperatively with other federal land management  
4 agencies such as the Bureau of Land Management and  
5 Office of Management and Budget to seek other options  
6 for resolving this third party institutional control  
7 issue. We'll continue to interact with DOE and the  
8 Commission regarding DOE's proposal while other options  
9 are being evaluated.

10 The next bullet on that slide is Financial  
11 assurance. What we are finding is that there is  
12 inadequate financial assurance for a small number of  
13 the legacy sites that are undergoing decommissioning  
14 today. We've also seen a number of sites file for  
15 bankruptcy. These raise questions in our mind about  
16 the adequacy of our current financial assurance  
17 mechanisms.

18 Based on that we're conducting a  
19 comprehensive review of all of our existing and former  
20 NRC licensed sites to assess the status of the  
21 financial assurance for decommissioning and consider  
22 what more can be done in the future. We will consider  
23 decommissioning cost estimates, financial evaluations  
24 particularly the capability of responsible parties to  
25 fund the clean up, and the actions the staff could

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1 take to resolve these financial issues.

2 The staff is planning a briefing for the  
3 Commission on bankruptcy issues in the May time frame.  
4 We're also proposing to provide a paper to the  
5 Commission in the June time frame on amending our  
6 financial assurance rulemaking. Here what we would be  
7 looking at is changes of the certification amounts and  
8 requiring periodic cost updates. In the longer term  
9 the staff is looking at broader changes to our  
10 regulatory framework including considering the  
11 development of maybe performance indicators that would  
12 trigger a review and possibly an increase in financial  
13 assurance and expedited clean up when the adequacy  
14 becomes questionable.

15 The next bullet on that slide that I'll  
16 speak to is interagency coordination. Here the staff  
17 has ongoing interfaces with multiple federal and state  
18 agencies including the EPA, DOE, Army Core of  
19 Engineers and the State of New York. These interfaces  
20 are brought in on a range of policy and technical  
21 issues.

22 Our major efforts in this area include  
23 finalizing the EPA MOU for improving interagency  
24 coordination for decommissioning of NRC licensed  
25 facilities. We're also coordinating with DOE on the

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1 stewardship issue that I spoke of earlier. We're also  
2 coordinating with the State of New York on the  
3 multiple roles that they play in regulation and  
4 decommissioning of the West Valley site.

5 On that last bullet on the Atomic Energy  
6 Act 11.e.(2) byproduct material, here we're talking  
7 about waste produced through extraction of uranium or  
8 thorium for ore processed for its source material  
9 content. There have been several Commission papers  
10 and staff responses to outside inquiries in this area.  
11 These have been focused primarily on the language and  
12 legislative history of the Atomic Energy Act and  
13 11.e.(2) byproduct material. There has been a growing  
14 interest in this area. We continue to get increased  
15 correspondence and question from our stakeholders.

16 The staff is now stepping back and taking  
17 a look at its policies in this area and will be  
18 providing a paper to the Commission on this in the  
19 future. What we want to do is consider in this area  
20 the range of external environmental changes that have  
21 occurred over the years including the access to and  
22 cost of Low level waste disposal, the decline in the  
23 uranium mining milling processing industries and the  
24 lack of third party entities that I spoke of earlier  
25 around institutional controls. Our goal here would be

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1 to provide some flexibility while maintaining adequate  
2 levels of public protection.

3 With respect to Low level waste disposal  
4 in the next slide, slide seven, I'm going to talk  
5 about Compact sites and the commercial disposal  
6 facilities, some Rulemaking and guidance development  
7 work and a category of waste called Greater than Class  
8 C waste. First with regard to the compact sites and  
9 commercial disposal facilities, what we're seeing is  
10 the future availability of Low level waste facilities  
11 being somewhat uncertain at this point in time.  
12 States and compacts have been unable to develop any  
13 new full service facilities under the Low level waste  
14 Policy Act. Barnwell is gradually closing two out of  
15 compact generators. Envirocare has recently put its  
16 Class B and C waste disposal licensing action on hold.

17 The staff is now considering other Low  
18 level waste management options such as a short  
19 isolation entombment and yet other alternatives for  
20 disposal. In this area, research continues to provide  
21 us valuable support through its work on engineered  
22 barrier performance.

23 I also wanted to talk about Low level  
24 waste rulemaking and guidance and development. Here  
25 we've recently promulgated an advanced notice for

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1 proposed rulemaking on entombment for decommissioning  
2 power reactors. The Commission will receive a paper  
3 on a preferred option in this area I think coming up  
4 this summer.

5 We also note the EPA is considering moving  
6 forward with a rulemaking proposal for mixed waste  
7 disposal. That would allow for slightly contaminated  
8 radioactive mixed waste to be disposed of in hazardous  
9 waste facilities.

10 Greater than Class C Waste, the last  
11 bullet on that slide I just want to recognize that  
12 there is no federal plan at this point in time for the  
13 safe permanent disposal of Greater than Class C Waste.  
14 DOE is responsible under the Low level waste Policy  
15 Amendments Act. NRC is responsible for licensing of  
16 such a facility.

17 10-C of our Part 61 presumes that there  
18 will be a geologic disposal and allows for other  
19 alternatives if proposed by DOE. To date DOE has made  
20 little or no progress in addressing this Greater than  
21 Class C waste disposal. As a result myself and other  
22 senior managers have been actively engaged with DOE  
23 senior management to explore how best to make progress  
24 on this class of waste. We'll keep the Commission  
25 informed of our progress in this area.

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1 Other issues. The last slide I'm going to  
2 speak to is on slide eight. I wanted to talk about  
3 our efforts to Maintain critical skills, our efforts  
4 to Risk inform the Waste Arena activities and Other  
5 efficiency and effectiveness initiatives that we have  
6 ongoing.

7 First with regard to Maintain critical  
8 skills, I would like to acknowledge that NRC has a  
9 very capable staff supporting this arena. We also  
10 have an outstanding contractor, the Center for Nuclear  
11 Waste Regulatory Analysis providing us support in this  
12 arena. Maintaining this staff both here at  
13 headquarters and at the center will play a key role in  
14 our ability to review a High level waste license  
15 application should one come before us and make  
16 regulatory decisions required in that three year time  
17 period I spoke of earlier, also to support some of our  
18 spent fuel review activities, spent fuel storage and  
19 transportation review activities.

20 Another important area that will play a  
21 key role in our ability to review a High level waste  
22 application and make regulatory decisions is having  
23 independent advisors available to the Commission on a  
24 timely basis in an event that there are licensing  
25 adjudication. Staff is consulting with the Commission

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1 in this area. We've recently completed an assessment  
2 of needs and potential sources for adjudicatory  
3 employees. We will be providing a paper to the  
4 Commission in the very near future on this topic.

5 The next bullet on Risk informing Waste  
6 Arena activities, we continue our ongoing efforts for  
7 a risk informed Yucca Mountain review plan. Use of  
8 risk insights in this area will help us identify  
9 information gaps and by focusing our review on those  
10 issues most important to protecting public health and  
11 safety, we want to focus on what's most risk  
12 significant and focus on what's most important to  
13 repository performance.

14 Decommissioning guidance consolidation is  
15 also another area where we're using risk information  
16 to make our guidance much more efficient and  
17 effective. This guidance will be helpful and  
18 necessary in the decommissioning process for licensees  
19 developing decommissioning plans and license  
20 termination plans. Our risk task group has recently  
21 completed another round of case studies for use on  
22 risk information and site decommissioning  
23 transportation spent fuel storage. The results from  
24 these case studies are being fed back into our  
25 programs to identify areas where we can further

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1 improve our effectiveness and identify additional  
2 efficiencies.

3 There are two areas that I would like to  
4 note that research is providing us very valuable  
5 support. One is on our probabilistic risk assessment  
6 of a spent fuel storage facility. Here we'll use this  
7 information coming out of the study to update our Part  
8 72 regulations, update our licensing review process  
9 including our standard review plan and also look at  
10 our spent fuel storage inspection program.

11 Valuable opportunity to use insights here.  
12 Also I mentioned earlier the package performance  
13 study, this is another area where we're using risk  
14 insights to examine transportation casks and their  
15 behavior in severe accidents, in severe impacts and  
16 fire accidents. This will help validate our analyses  
17 codes and our regulatory requirements.

18 Other issues. I wanted to just touch on  
19 in terms of efficiency and effectiveness initiatives.  
20 First, it all starts with our planning, budgeting and  
21 performance management process. Our overall use of  
22 this PBPM process has provided us a framework for  
23 accommodating changes in workload, both new work and  
24 unplanned work, and prioritizing this work based on  
25 our performance goals. We budget for the work and

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1 then we monitor and manage our performance against  
2 perspective outcomes.

3 In our decommissioning area specifically,  
4 we've recently issued a regulatory issue summary on  
5 lessons learned. This will help us and our licensees  
6 develop more complete decommissioning and license  
7 termination plans. We've also revised our acceptance  
8 review process in this area to allow us to early  
9 identify issues in our review process. If an  
10 application is not complete, to turn it back to the  
11 applicant.

12 Here a decommissioning research is also  
13 continuing to make valuable support and contributions  
14 to our program as they update various tools that we  
15 use in assessing and modeling complex sites such as  
16 the probabilistic version of RESRAT and the DND  
17 codework.

18 In the area of spent fuel storage and  
19 transportation, we've had in place rules of engagement  
20 and our standard review plans. These continue to be  
21 improved upon to better manage and implement our  
22 programs for a license applications and for spent fuel  
23 storage and transportation casks. Other initiatives  
24 that we have in the spent fuel storage and  
25 transportation area include a format and contact guide

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1 for the staff to use in developing safety evaluation  
2 reports. SRPs and supplemental SRP guidance called  
3 interim staff guidance. We also use a lessons learned  
4 process here. All have been designed to increase the  
5 efficiency and effectiveness of our staff reviews of  
6 license applications.

7 This completes my portion of the  
8 presentation. Hub Miller will now provide a regional  
9 perspective in the waste arena. Then Carl Paperiello  
10 will summarize our presentations.

11 MR. MILLER: Thank you, Marty. I thought  
12 I would share with you original perspectives on two  
13 issues really that we are involved in, in the waste  
14 arena. One has to do with the decommissioning sites,  
15 the clean up situations.

16 I imagine that this is obvious but it's  
17 hard to overstate in a sense how much work there is  
18 involved in these cases beyond the technical and  
19 safety work. Of course it starts with the technical  
20 and safety work certainly. We from the regional side  
21 are involved in doing inspections. What we find is  
22 that typically there are a few if any patterns really,  
23 no script to follow in each case. Each case is a  
24 customized proposition. What we find is that success  
25 in resolving issues in closing these sites is often

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1 very much dependent upon the creativity and the  
2 innovation of the staff involved in doing these  
3 inspections in terms of searching out stakeholders and  
4 working with stakeholders.

5 Marty mentioned the MOUs that are underway  
6 with the Department of Energy and EPA. What we find  
7 in cases where we're successful, we in each case have  
8 to come to an agreement with the state and with EPA  
9 and with the local people. I guess my point here is  
10 that viewed from the field one of the most challenging  
11 aspects of these sites which typically don't pose the  
12 acute kinds of hazards that reactor and spent fuel  
13 does. It's a very challenging situation.

14 We've closed out in our region for example  
15 eight sites in the past four years. What we're  
16 finding is that any of the easier sites were closed  
17 out and we're dealing with them or are meddlesome  
18 issues now. That's the first perspective. It is a  
19 very challenging situation. Each of these sites.

20 The other point is somewhat related is in  
21 the area of ISFSI there's a growing business. Region  
22 One for example where there are a number of reactor  
23 sites that are going through decommissioning and are  
24 moving to the ISFSI. There are also a number of sites  
25 of course that are operating in, going to our spent

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1 fuels drycast. The public interaction, that dimension  
2 is in many respects beyond what we anticipated  
3 initially. It's a challenge for us again. It starts  
4 with the solid technical work. We walk a very fine  
5 line I find frequently and it has been increasing  
6 really.

7 The interest that comes from local people  
8 in these activities there is no formal hearing if you  
9 go through the CFC and the general license but what  
10 we're finding is there is intense interest. In many  
11 instances we prudently say yes. In many instances we  
12 prudently say no when it comes to heavy engagement  
13 with external stakeholders. It takes a great deal of  
14 wisdom where to draw that line. We are dealing with  
15 limited resources and it's often a challenge for us.

16 Just a couple of perspectives that may  
17 help you and I'd be happy to answer any questions as  
18 we go through the presentation.

19 DR. PAPERIELLO: If I could have the  
20 second slide please. The Overarching Issues that I've  
21 referred to before I believe many of the programs  
22 discussed in this arena share some if not all of the  
23 characteristics shown on this slide. These issues  
24 have required Commission attention and input on policy  
25 matters.

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1 Many involve a first-of-a-kind licensing  
2 action. Clearly High level waste is in this category.  
3 However restricted release under Part 20, entombment,  
4 assured storage, waste shipment and dual purpose cask,  
5 central efficacies and the licensing of a Low level  
6 waste disposal site under Part 61 also share the  
7 characteristics of being a first-of-a-kind.

8 There is much work being conducted on  
9 standards in this arena especially implementation  
10 standards. I include in this area implementation  
11 standard presented as staff guidance such as found in  
12 standard review plans for decommissioning, the Yucca  
13 Mountain Licensing Review Plan, drycast storage and  
14 Low level waste performance assessments and computer  
15 codes and analytical tools endorsed by the staff.

16 This is also an area in which other  
17 federal agencies are involved as well as international  
18 organizations. Particularly transportation  
19 coordination is a fairly formal process. Because the  
20 activity level of outside agencies is high a lot of  
21 effort has to be spent in maintaining and  
22 understanding what others are doing and why. MARSIM  
23 and MARLAP are essentially implementation standards  
24 which are a product of federal coordination.

25 Research has a significant contribution

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1 here and maintaining cognisance of various standards,  
2 the technical bases for these standards, the  
3 development of NRC codes and analytical tools and  
4 improving the realism of parameters used in modeling.

5 The third overarching issue is the role of  
6 modeling. Compliance with the standards in this arena  
7 is demonstrated through modeling. In one sense this  
8 is unique. In another it isn't. In a sense all  
9 engineering calculations are modeling. However most  
10 if not all engineering calculations have received  
11 empirical confirmation through engineering experience.

12 The same is true for the theories of  
13 physical science that rise to the levels of laws based  
14 on our history of confirmation. In the waste arena,  
15 modeling of events over geological time scales does  
16 not have nor can it have in my view the type of  
17 empirical confirmation that exists in traditional  
18 engineering. This has led and leads to issues  
19 concerning realism in modeling estimates of  
20 conservatism and the questioning by some of the  
21 possibility of predicting performance of all over long  
22 periods of time.

23 Lastly as Mr. Miller noted, there is a  
24 high degree of public and stakeholder attention in  
25 this arena. Particularly in light of the previous

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1 three issues. Consensus among U.S. Government  
2 organizations as well as international organizations  
3 on modeling and standards can contribute I believe to  
4 improving stakeholder confidence.

5 Furthermore following Commission  
6 direction, the staff has maintained a high level of  
7 stakeholder interaction in this arena. Mr. Travers.

8 MR. TRAVERS: Chairman, that concludes our  
9 presentation. Certainly we have to answer your  
10 questions.

11 CHAIRMAN MESERVE: Thank you very much.  
12 I think that Dr. Paperiello's summation at the end  
13 really characterizes the many challenges that are  
14 common. In this arena perhaps we don't see to the  
15 same extent in others. It was a very helpful  
16 overview.

17 I think it's Commissioner Merrifield's  
18 turn.

19 COMMISSIONER MERRIFIELD: Thank you very  
20 much, Mr. Chairman. First question to Mr. Virgilio is  
21 associated with the issue of spent fuel storage and  
22 transportation casks. I want to first preface it by  
23 saying I think the staff has made significant progress  
24 in this area in terms of meeting user needs and  
25 meeting the desires to try to have us work through

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1 some of these issues.

2 We remain entangled in issues associated  
3 with high burn-up credit and damage to the fuel. I'm  
4 wondering if you could give some sense of what our  
5 schedule is for resolving some of these issues and  
6 what some of the key technical issues may be down the  
7 line that we may need to work our way through to get  
8 there.

9 MR. VIRGILIO: We continue to work and I  
10 was told this morning by our staff we're having  
11 additional meetings just this week on resolving some  
12 of those technical issues, particularly with regard to  
13 burn-up credit. At this point in time I would say  
14 that what we're doing is working on the margins. It's  
15 not that we're unable to license at this point in  
16 time. We certainly are licensing. We certainly are  
17 proceeding with our program.

18 Are there conservatisms in our  
19 calculations? Probably so. Are there opportunities  
20 to reduce those conservatisms with data and analysis?  
21 Yes, I think so.

22 I think I would have to come back to you  
23 with the detailed schedules. I don't have them with  
24 me today with milestones as to how we are proposing to  
25 proceed in these areas.

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1 COMMISSIONER MERRIFIELD: That's fair. I  
2 didn't mean to put you in a position of having to give  
3 too much detail on that. I think the one thing I want  
4 to -- Sorry?

5 (Laughter.)

6 I think there's a sense of balance that we  
7 have to achieve. That balance is associated with on  
8 the one hand dealing with the ongoing needs of a large  
9 number of operating reactors which are seeking to  
10 utilize casks and make sure they have sufficient off  
11 core load capability in their storage pools.

12 On the other hand there are  
13 decommissioning facilities some of which have appeared  
14 before the Commission within the last year that are  
15 concerned. They want to get everything out of their  
16 pool. That leads you to the conundrum trying to deal  
17 with some of the more marginal issues like high burn-  
18 up fuel and most known to be damage fuel.

19 When you come back with the more detailed  
20 information which is fine I would like to have you  
21 also reflect on how we are achieving that balance to  
22 meet user needs on both ends of the spectrum.

23 You stated in the briefing that the staff  
24 is developing a future commission paper relative to  
25 the 11.e.(2) byproduct material. This has been an

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1 area of no small amount of Commission interest or  
2 stakeholder interest. I recollect that the first  
3 opportunity that I had the pleasure to meet our  
4 General Counsel Karen Cyr was over this very issue  
5 during a hearing I think in 1997 in which the Senate  
6 Armed Services Committee had some great deal of  
7 concern about the ability to have a wide variety of  
8 locations for which fuselage materials to be deposited  
9 to, valid Congressional concerns about safe disposal  
10 and also economically efficient disposal.

11 Could you share some more details in terms  
12 of where you think this paper may take us and whether  
13 it will address the ever expanding number of loopholes  
14 or potential loopholes or unique areas that we seem to  
15 be finding relative to some of these sites?  
16 Additionally whether that paper will also reflect  
17 discussions with the Army Corps of Engineers and what  
18 they perceive is their user needs in that area?

19 DIRECTOR VIRGILIO: With regard to the  
20 stakeholders that will evolve, I think it will be a  
21 wide range of stakeholders including the Corps. Some  
22 of the things that we are thinking about right now  
23 that are driving this is insuring that we have  
24 flexibility and that we maintain public health and  
25 safety. We're looking at options around cost. We're

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1 looking at options around how to go about disposing of  
2 the material, where it would be disposed of.  
3 Institutional controls are other areas that we are  
4 looking at. Step back and look at this holistically.

5 I think we've address this as a case by  
6 case process. I'm not too sure that we've really  
7 thought about what's happened in the external  
8 environment over the last 20 or 30 years. Clearly the  
9 decline in the uranium mining, milling and processing  
10 industry and the lack of third party to take  
11 responsibility for the institutional controls and the  
12 cost of low level waste disposal are all key drives as  
13 to how we're going to have to approach this problem.

14 COMMISSIONER MERRIFIELD: It's a  
15 difficult one and I look forward to the Staff's paper  
16 in that regard. There's a lot of interest out there.  
17 It is a difficult one I think for us in that there are  
18 parties who have competing commercial interest in this  
19 area. All of them would like to be the sole source or  
20 sole repository for those materials. We should  
21 obviously be concerned about health and safety but we  
22 should also be mindful of the Federal fisc. in that  
23 respect.

24 I'm not certain whether this is  
25 appropriately directed to this half of the table or

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1 whether we may need some support from some of our  
2 supporting cast but we are required in our regulations  
3 associated with licensing support network to set a  
4 date by which documents can be electronically  
5 available. There have been a variety of discussions  
6 prior to the LSN becoming effective as to how parties  
7 should make a good effort to make sure materials get  
8 on the LSN.

9 The LSN became operational last October.  
10 In fact, it was October 18th. I'm wondering to what  
11 extent the NRC is placing documents in the LSN at this  
12 point, what our plans are for getting through the  
13 materials and into the system and to what extent key  
14 players in this effort most notable the DOE are making  
15 for their part good faith efforts to get their  
16 documents on to the LSN instead of merely waiting  
17 until the last day available to do so. So I'm  
18 wondering if you could address that.

19 DIRECTOR VIRGILIO: Let me start and maybe  
20 Paul can pick up then. There are roughly 10,000 plus  
21 High level waste documents in ADAMS today that will be  
22 moved into the system. I think the first priority is  
23 to make sure that the material is electronically  
24 available.

25 We were starting to move documents onto

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1 the server, however in light of 9-11 we stopped to  
2 assess whether there were issues around that. As well  
3 DOE advised us that they were stopping adding  
4 documents into the system as well. We're in the  
5 process of revising our guidance around this.

6 Given where we are with a proposed  
7 schedule from DOE of license application in December  
8 of '04, I think we've got ample time to move documents  
9 once we have them electronically onto the LSN Server.  
10 I think the key is getting the documents in electronic  
11 form so they're available to be transferred over.

12 DR. PAPERIELLO: Okay. Paul?

13 MR. BOLLWERK: Paul Bollwerk with the  
14 License Support Panel. Good afternoon. From our  
15 perspective and we have a little bit more of a global  
16 view of this because we have to worry about the staff  
17 as well as DOE and any other parties, we have seen  
18 some progress with the party particularly after the  
19 President's axe on the CY (PH) recommendation for  
20 instance White Pine County and some of the other  
21 Nevada counties that began to contact us about getting  
22 their documents on. One concern we do continue to  
23 have is with respect to the DOE who has the largest  
24 group of documents. Licensing Support now has an  
25 Administrator, Dan Grazer, (PH) and his staff have

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1 regular contact with the DOE. We do have some  
2 concerns about exactly what their strategy is whether  
3 it's in terms of resources, litigation strategy,  
4 whatever, of their putting documents on the system.

5 My concern frankly is that if given the  
6 large volume of documents that they have if they wait  
7 until the last minute, it may take some time for our  
8 crawlers to go through and bring the documents into  
9 the system. Again it says electronic access and one  
10 of the questions is what does that mean. It may well  
11 be if they show up on the night, on the day in which  
12 they think six months is going to expire so their  
13 application is going to be filed. It may take us some  
14 time to get all of the documents crawled. That may  
15 delay potentially the ability of the agency to accept  
16 the application. We have that concern.

17 We're hoping the DOE's going to move  
18 forward frankly and begin to interact with us a little  
19 bit more. They did pull their documents off because  
20 of the 9-11 concerns. We're hoping now once the  
21 process moves forward, they'll begin to put some of  
22 them back up again.

23 COMMISSIONER MERRIFIELD: Thank you. I  
24 understand that these are practical consequences  
25 you're outlining regarding the volume. We all have

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1       been struggling with the issues associated with  
2       September 11. Hopefully we're getting beyond that and  
3       I presume DOE is as well.

4               I think my concern and the reason I raise  
5       this question is because, and this is not the first  
6       time I've done it, I've been talking about these  
7       issues for a number of years, is making sure the  
8       documents are out there as soon as they can be  
9       available for the public. The folks out in Nevada who  
10      I view were highly affected by this. In fairness,  
11      that's what we ought to do into the extent that we  
12      need to enhance our interactions with DOE and  
13      encourage them to put those documents on sooner rather  
14      than later. I think that's the right thing to do.

15             MR. BOLLWERK: Just to add, certainly the  
16      interaction that we've had through the Licensing  
17      Support Network Advisory Review Panel it's pretty  
18      universal that people would like to get the  
19      documentation out there as soon as possible  
20      particularly the DOE, NRC documents. I'm hoping that  
21      the agency will do what it can to move forward and set  
22      the right example. Thank you.

23             COMMISSIONER MERRIFIELD: The final  
24      question that I have and I'll direct this towards Hub  
25      Miller, it strikes me that we're in somewhat of a

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1 conundrum relative to decommissioning sites. We've  
2 gotten some of the easy ones off of the list. We have  
3 more of the more difficult ones ahead of us.

4 Traditionally the most difficult are the  
5 most difficult and we've considered the possibility of  
6 approaching the Environmental Protection Agency and  
7 asking them to list those sites on the national  
8 priorities list for payment out of the superfund trust  
9 fund. The difficulty is that many of our sites don't  
10 qualify under the hazardous ranking score. You have  
11 to have a score of 28.5 to get onto the superfund.  
12 It's mainly driven by water contamination which is not  
13 a significant concern at our sites. That's a funding  
14 mechanism that is unavailable to us.

15 We drive towards the licensed termination  
16 criteria, free release criteria. We have licensees  
17 who do not have the financial wherewithal sometimes to  
18 get there. That has the possibility at least of  
19 driving them into bankruptcy is to avoid and protect  
20 the assets of the company. It gets us into a real  
21 mole.

22 You get sites. The money isn't there.  
23 We've got criteria we're trying to me. We're not  
24 going to bridge that.

25 Congress for its part related to chemical

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1 waste sites has tried to put in a framework signed  
2 into law by the President this past year, the  
3 Brownfield Remediation Act which allowed for  
4 redevelopment of these sites for in many cases  
5 industrial uses of utilizing a wide variety of  
6 controls available to the EPA, Randy's controls (PH),  
7 covenants, deed restrictions and ongoing oversight by  
8 the EPA down the line. I'm wondering the extent to  
9 which an approach like this might be something that  
10 the staff has at all thought about, whether it might  
11 be something that we need to rethink moving forward.

12 I ask this and I'll stop this longwinded  
13 question personally because despite the fact that we  
14 have restricted release criteria right now there is  
15 not an instance that I'm aware of in which a licensee  
16 is actually chosen to go that route. We have an  
17 opportunity but no takers. I'm wondering. Do you  
18 have any insight into that issue?

19 MR. MILLER: Yes. If I could just share  
20 my perspective again, I'm sure Marty, I'm not as  
21 familiar of this deal with the legislation as Marty is  
22 so I would defer to him. But you're right in terms of  
23 this being a very serious issue and a very difficult  
24 issue. Safety Light for example in my region in  
25 Pennsylvania if the estimates for unrestricted release

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1 of that is between 30 and 100 million dollars. These  
2 are estimates coming from the company. We're talking  
3 about radium largely.

4 It's a dual made more complex by the fact  
5 that it's not just the things that we regulate.  
6 There's stranzium(PH) and cesium and some tritium.  
7 These are not issues that are real severe or acute  
8 level of hazard. You're talking enormous sums however  
9 if you go and try to clean up that site completely.

10 A final solution has not been arrived at.  
11 Maybe I'm as much as anything echoing the premise of  
12 your question. That is the difficulty of this and the  
13 need to search solutions that might involve some sort  
14 of an institutional pair.

15 We've made some progress recently working  
16 with EPA who does have an authority under CIRCLA I'm  
17 told to spend some money in the short run without  
18 going through a full ranking. In fact before it's  
19 done with a very shortage of our short year funds in  
20 that case, we may end up taking advantage of that.  
21 EPA may in fact be stepping in. We're making some  
22 progress.

23 It's a tough issue. I think Safety Light  
24 may be more than anything bringing it to life.

25 CHAIRMAN MESERVE: Marty?

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1                   DEPUTY VIRGILIO: I just mentioned earlier  
2                   that we were working with the Department of Energy on  
3                   an MOU to have them take control of certain sites  
4                   where institutional controls would be needed. We've  
5                   also been thinking about Plan B if that doesn't work.  
6                   One of the things that we've been looking at is the  
7                   Brownfield Revitalization Act.

8                   Our staff has gotten that. Their initial  
9                   read of that is that was not really helpful but there  
10                  are certain principles that we might apply. It's  
11                  really focused on reducing the liability for innocent  
12                  nonresponsible parties. However I think there are  
13                  provisions within that act that might apply.

14                 One is in thinking through how we do our  
15                 model and whether the resident farmer scenario is the  
16                 right scenario given you're just going to be doing it  
17                 in an industrial area. There may be some  
18                 opportunities for us to think through it. Also there  
19                 may be other opportunities around alternate criteria  
20                 for unrestricted release particularly where you're  
21                 dealing with an industrial facility or an industrial  
22                 complex.

23                 Those are some of the things. Those  
24                 principals might apply. Like I said, it's part of our  
25                 Plan B thinking.

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1                   COMMISSIONER MERRIFIELD: You're reading  
2 of it is correct. You have to read between the lines  
3 and understand that Congressional history to get the  
4 suggestion that I'm making. I also have a caveat to  
5 put it in because I wrote some of the language that  
6 was adopted in that law. I have some personal  
7 preference to it as well.

8                   The point remains that we don't have the  
9 resources nor do our licensees to get those  
10 landholdings back to as they say in my part of the  
11 country "the way God made it." To the extent that we  
12 don't, how do we bridge that difference to make sure  
13 the public health is protected while at the same time  
14 trying to get them back in the economic mainstream so  
15 that the communities which are surrounding that site  
16 can take advantage of those landholdings that get them  
17 back into economic redevelopment.

18                  That in fact was the purpose behind the  
19 Brownfield bill that was signed by the President. I  
20 appreciate the further thoughts to the staff in that  
21 regard.

22                  Thank you, Mr. Chairman.

23                  CHAIRMAN MESERVE: Thank you. Let me say  
24 from my own experience on dealing with this  
25 decommissioning sites that there's one other big

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1 difference between the EPA and NRC. That is the EPA  
2 has very stringent requirements that they have in  
3 principle in their regulations, but at many sites it  
4 ends up being a negotiated arrangement. Quite seldom  
5 do they end up with clean up levels which are where  
6 they start.

7 Superfund of course doesn't allow you to  
8 get to a hearing process until after the cleanup is  
9 completed. You have an opportunity for trying to  
10 find things that are maybe a sensible balance between  
11 objectives that is much harder to do in our process.

12 There are great differences between the  
13 EPA system and ours. I think Commissioner Merrifield  
14 really has put his finger on an important problem  
15 however. It is trying to find some sensible way so  
16 that things can be cleaned up because of the  
17 extraordinary costs in many instances of going to the  
18 extreme levels that may be unnecessary in light of the  
19 actual uses of which the land will be placed.

20 In your discussion of the decommissioning  
21 sites that you had, one of the rulemaking areas that  
22 you mentioned was the need to reexamine the financial  
23 assurance requirements to make sure there was some  
24 money that's available and the problems that you've  
25 encountered with licensees that turn out to have less

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1 assets. I took a quick look at 30.35 and it does seem  
2 that the decommissioning plans do require to have  
3 prepayments or surety or some other assured means that  
4 the money would be there.

5 I'm curious what's happened. Is the  
6 problem that the estimates end up being too small?  
7 The point of the regulatory requirements in 30.35 is  
8 that you would not intend it to be vulnerable to the  
9 financial capability of a licensee. We actually in  
10 the regulatory sense thought about that part of the  
11 problem before. I'm a little confused as to what the  
12 issue is.

13 DEPUTY VIRGILIO: I think there are a  
14 couple of issues there. In some cases it's the  
15 estimates. In some cases it's the method. What we  
16 find is that some of the estimates are based on on-  
17 site disposal. When it comes to the actual  
18 decommissioning the materials are taken off-site and  
19 disposed of off-site which is a tremendous multiplying  
20 factor to the cost when you go that way. Ask Hub.

21 MR. MILLER: Another thing if you look at  
22 Safety Light much of that contamination preceded NRCs  
23 requirements for financial surety. We've been making  
24 this decision on an ongoing basis every five years or  
25 so as we choose or not to renew the license. What's

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1 the best situation to take possession of this hazard?  
2 Shut the facility down or keep it moving along,  
3 yielding some funds for the decommissioning fund. I  
4 think much of it just precede the time when we  
5 requirements.

6 CHAIRMAN MESERVE: So the modifications  
7 that you're contemplating then, how are you going to  
8 deal with retroactivity issue review or have you not  
9 sorted that out yet?

10 DEPUTY VIRGILIO: I think we're going to  
11 take it in two steps. The rulemaking that we're  
12 coming up with first, this one that would come up I  
13 think in the June timeframe, is a modest approach to  
14 this that would require rebaselining and I think it's  
15 three year updates. I think then we're going to step  
16 back --

17 CHAIRMAN MESERVE: So that gives you the  
18 cost estimate part of it.

19 DEPUTY VIRGILIO: Cost estimate part of  
20 it. Then we're going to step back in parallel and  
21 think through more broadly. If there are things like  
22 the performance indicators that I talked about earlier  
23 in terms of monitoring and taking action, also things  
24 that we might consider in terms of granting new  
25 licenses today with regard to insuring that there's

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1 not the contamination levels and cleanup problems that  
2 we're dealing with today.

3 CHAIRMAN MESERVE: With regard to the  
4 Yucca Mountain activities that you have underway,  
5 you've indicated that there are these 293 agreements  
6 that we have with DOE for the resolution of key  
7 technical issues and apparently few of them having  
8 been closed up. I can understand if I were on the  
9 staff and I were working out Yucca Mountain issues  
10 that not be any particular incentive to close out an  
11 agreement earlier than I had to because of the  
12 prospect that something might arise. There may be  
13 some aspect of what's been submitted that you haven't  
14 appreciated.

15 The danger is that time goes on and if in  
16 fact we do get an application we may get to the point  
17 where in fact the process that was intended to bring  
18 us to closure hasn't succeeded because we haven't had  
19 the discipline to be able to close these activities.  
20 I wonder if you could describe what things you have  
21 underway to actually bring some of these agreements to  
22 closure?

23 DEPUTY VIRGILIO: Based upon the numbers,  
24 you're right. There are 293 agreements where we  
25 started in terms of addressing the 9 KTIs and 37

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1 subissues. So we keep the numbers straight here. As  
2 of today I believe we've closed 38 of the 293 with a  
3 target of closing 60 in '02.

4 That precedes what DOE has just finished  
5 doing which is a rebaseline and a reprioritization to  
6 try to focus on the most important of the agreements  
7 so that we make sure we put our attention where the  
8 attention needs to be placed. I think some of the  
9 more important ones that are around the waste package  
10 igneous-barrier performance, the models. These kinds  
11 of issues tend to be the ones where we believe that  
12 those agreements are of course they are not all equal  
13 the most important of the agreements that we have to  
14 close.

15 So we await hearing from DOE on the  
16 revised top to bottom review and the rebaselining.  
17 We've meetings scheduled this month with DOE and their  
18 contractors to make sure that we fully understand  
19 where they're coming out.

20 We're making process. I mean 38 out of  
21 the 60 that we've planned to this year I think we are  
22 making progress and notwithstanding. I agree with  
23 you about some issues. There are disincentives  
24 concerns that we close them. However the process  
25 isn't unidirectional while on balance we want to see

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1       that the numbers come down, DOE is considering design  
2       changes to the repository. If they go to a different  
3       thermal condition that will bring up new technical  
4       issues and we may in fact open up additional  
5       agreements in order to close that.

6               What we want to do is to make sure that we  
7       have addressed all the agreements that we need to  
8       address at the time of licensing. If there are any  
9       additional agreements, all those are dealt in the post  
10      licensing performance confirmation period. That's  
11      where we want to be.

12             CHAIRMAN MESERVE: I don't want my  
13      comments to suggest that there should be an premature  
14      closing of any of these agreements. It's just the  
15      concern to make sure that there is a discipline that  
16      when they can be closed we do so. So that our  
17      attention and DOE's attention can be focused on those  
18      areas where there is a real issue that needs to be  
19      resolved. It's going to help us both if we have that  
20      discipline as this goes forward obviously engaging  
21      with DOE on the process of trying to get their sense  
22      of when they will be able to submit the information  
23      and what form will helpful on that.

24             I think that also related to this is that  
25      it's become apparent that issues associated with

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1 transportation are going to be ones that are likely to  
2 attract a huge amount of public interest. If we  
3 proceed with going forward on with the Yucca Mountain  
4 site and you've mentioned the package performance  
5 study, did you say something about the schedule by  
6 which that there might in fact be tests to valid the  
7 codes?

8 DIRECTOR VIRGILIO: I would have to get  
9 back to you on the exact schedule. Clearly what we do  
10 is have this completed before I think we are looking  
11 at over the course of the next several years certainly  
12 in ample time to have this done to support any  
13 campaigns to be moving fuel.

14 CHAIRMAN MESERVE: Let me say that I think  
15 is going to end up being one aspect of activity which  
16 will be hugely important in the public arena.

17 DIRECTOR VIRGILIO: Yes.

18 CHAIRMAN MESERVE: So that having this as  
19 an issue which we have a complete technical  
20 understanding of with adequate validation it will be  
21 a central concern as we proceed.

22 That's all I have for you. Commissioner  
23 Dicus?

24 COMMISSIONER DICUS: Going back to these  
25 agreements, the key technical issues, the sub issues,

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1        *et cetera*, when you are meeting with the public and I  
2        know you have some more public meetings coming up, how  
3        are you transmitting this information, the magnitude  
4        of it, whatever, to the public? What kind of feedback  
5        do you get from the public when they see numbers like  
6        this? Or does this even come up?

7                DIRECTOR VIRGILIO: There was a lot of  
8        concern originally around some of the definitions. I  
9        think people are trying to understand when we say  
10       closed and closed pending.

11               COMMISSIONER DICUS: Closed and closed  
12       pending. Right.

13               DIRECTOR VIRGILIO: Those were clearly  
14       issues that we were communicating with the public  
15       about. I don't see that there have been a lot of  
16       concerns about the numbers. I see more concerns about  
17       some of the issues that we're dealing with.

18               COMMISSIONER DICUS: The schedule for  
19       amending Part 63 to address ten likely events, is that  
20       on course? Give me an idea.

21               DIRECTOR VIRGILIO: I believe the public  
22       comment period closed already. John do you know?

23               MR. GREEVES: Bill would you help him out  
24       on that?

25               MR. REAMER: Bill Reamer NRC Staff. Short

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1 answer is we're on schedule. The rule was issued with  
2 a 90 day public comment period I think which will  
3 close shortly. We have the resources and the plans in  
4 place to evaluate those and meet the schedule that we  
5 propose to the Commission to complete that this fiscal  
6 year.

7 COMMISSIONER DICUS: Okay. Thank you.  
8 Going now to the IAEA Standards and amending our Part  
9 71 regulations with regard to that, is that also on  
10 schedule?

11 DIRECTOR VIRGILIO: There I do have some  
12 concerns. We are waiting and we are proceeding in  
13 parallel with the Department of Transportation. We  
14 have been ready for some time but we continue to slip  
15 our schedules in order to ensure that this is a  
16 coordinated rulemaking.

17 The good news in all of that is there's  
18 really no consequence. We are not impeding any  
19 international commerce at this point in time or  
20 costing any of the stakeholders significant  
21 unnecessarily regulatory burdens. It's hard to say.

22 We continue to pulse the Department of  
23 Transportation. I think we're told now that they are  
24 optimistic that we can do it in the month of March but  
25 we've continued to suffer schedule slips.

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1 COMMISSIONER DICUS: Thank you. When you  
2 are talking about the enforcement responses designed  
3 by Mr. Greeves and enforcement responsibility and  
4 liability, *et cetera*, with institutional controls and  
5 finding the third party that might assume that  
6 responsibility, could you give me a feel for how many  
7 licensees this has impacted or might impact?

8 DIRECTOR VIRGILIO: John, I don't know if  
9 you have that number.

10 MR. GREEVES: John Greeves. At one point  
11 in time about a year ago we had 11 sites in this  
12 category. It was net. It is shrinking in part  
13 because it's so hard. A couple of licensees have said  
14 okay I have the resources. This is too hard. I'll  
15 send it to him. So I'd say a clear answer. It's  
16 about four or five that I could name to you in terms  
17 of ones who tried and are unsuccessful and don't  
18 really seem to have an avenue, Sequoyah Fuels being  
19 one of them.

20 COMMISSIONER DICUS: Okay.

21 MR. GREEVES: But it could be larger and  
22 again these are only the NRC sites so that answers  
23 your question.

24 COMMISSIONER DICUS: Thank you. And  
25 finally going to low level waste disposal and looking

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1 this assured isolation concept as well as the  
2 entombment option, do we currently have a feel for  
3 what licensees attractiveness to either one of these  
4 options that he would want to continue to pursue them?

5 DIRECTOR VIRGILIO: I think there is some  
6 attractiveness in terms of cost savings. One of the  
7 things that we did is ask specifically when we put out  
8 the entombment rulemaking for people to come back to  
9 us and tell whether they would be interested and to  
10 what advantage. So we would hope that in the response  
11 to comments in the rulemaking, we would be able to  
12 give you an answer that reflected the stakeholders'  
13 interests.

14 COMMISSIONER DICUS: Thank you. Mr.  
15 Chairman.

16 CHAIRMAN MESERVE: Commissioner Diaz.

17 COMMISSIONER DIAZ: Thank you, Mr.  
18 Chairman. Going back to the KTIs and High level  
19 waste, besides the number which is large we agree,  
20 most of those five efforts which were the major  
21 efforts were the waste package, igneous activity,  
22 characterization of areas, confidence in models and  
23 processes, and criticality which seems to have  
24 resources again. Out of this, have you decided which  
25 one specifically requires more effort? Is there one

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1 issue that is really bigger than the others that you  
2 think would require more resources which we should be  
3 aware of?

4 DIRECTOR VIRGILIO: Out of these 293,  
5 these categories that you've mentioned are the ones  
6 that we believe will in fact require the most of our  
7 resources. I think the package performance is a very  
8 significant one in our view. Criticality out of all  
9 those I think being the least but still could be one  
10 of the ones that we're going to be addressing.

11 COMMISSIONER DIAZ: I am relieved.

12 DIRECTOR VIRGILIO: You could the number  
13 of agreements and I think there's only one related to  
14 criticality.

15 COMMISSIONER DIAZ: How about the igneous  
16 activity which we have been talking about for years  
17 and years, is that deal mainly unresolved? Are we  
18 getting to some resolution of it?

19 DIRECTOR VIRGILIO: I think we are. I  
20 think by the status moving to close pending. It shows  
21 you that yes we believe we are on a path to bring that  
22 to resolution. It's a matter of getting the  
23 information now that DOE is committed to provide.  
24 It's been a significant issue. It will remain to be  
25 as one of the top five that we're interacting with

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1 today but as I said close pending is a significant  
2 milestone.

3 COMMISSIONER DIAZ: And of course  
4 criticality would be a major issue if we wouldn't  
5 really give them enough credit. Right?

6 (Laughter.)

7 DIRECTOR VIRGILIO: Okay.

8 COMMISSIONER DIAZ: Now that we have  
9 issued the draft report on Yucca Mountain, the staff  
10 will soon have a schedule of public meetings that will  
11 be arriving when and where? Do you expect that in the  
12 next month or when will you have that?

13 DIRECTOR VIRGILIO: We actually have a  
14 schedule laid out that takes us up to revision 2 of  
15 the Yucca Mountain Review Plan. I have not seen the  
16 details but I'm sure the staff is working on that  
17 right now for public interactions and comments. I  
18 know there will be a series of meetings in order to  
19 gain comments and use these comments to refine Yucca  
20 Mountain Review Plan.

21 COMMISSIONER DIAZ: The Part 71  
22 rulemaking. Is there an updated status and schedule  
23 on this effort? I know this requires coordination  
24 with DOT?

25 DIRECTOR VIRGILIO: I believe the last I

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1 saw was a request that we extend the schedule to the  
2 end of March. To March 31st. Anticipating that DOT  
3 would be able to resolve its management issues and  
4 focus on it.

5 It's just that they've not been able to  
6 get to it in light of responding to 9-11. All of our  
7 interactions with the DOE management indicated that  
8 there are no technical issues or problems that they  
9 are dealing with. It's just getting the attention on  
10 it. It's been under management review since the late  
11 fall.

12 COMMISSIONER DIAZ: Since transportation  
13 of course is becoming a major issue so whenever you  
14 get an updated status record, we would appreciate  
15 getting it.

16 DIRECTOR VIRGILIO: Yes.

17 COMMISSIONER DIAZ: I already made a small  
18 comment on why no credit. It's pretty hard to get  
19 poisons out of the fuel. It's not really been able to  
20 done effectively yet without repossessing which is not  
21 under consideration at the present time before  
22 transportation. I understand that the NAS study of  
23 transportation is going to look at public concerns  
24 about the spent fuel and we have done essentially two  
25 studies that deal with public concerns.

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1           One we did ourself on the clearance. I  
2           asked the ANS to do one on clearance. They both deal  
3           with issues about concerns about radiation, concerns  
4           about termination, social concerns. I assume there is  
5           an effort that is going to use those ready available  
6           data points before we do this next study on NAS  
7           transportation so that we will not reinvent the wheel  
8           every time.

9           DIRECTOR VIRGILIO: I look at the NAS  
10          study as not being so much trying to help us  
11          understand public concerns which I are fairly obvious  
12          in this area and I think there are other studies as  
13          you point out that we can draw on. I'm looking at  
14          them to help us look at the package performance study  
15          to make sure that it's focused on the right area. So  
16          they provide a step back in an independent review of  
17          what we're doing in that area to make sure that we are  
18          actually doing the right thing from a research and  
19          testing and modeling prospect as well.

20          COMMISSIONER DIAZ: But shouldn't they  
21          have access to what we did before and what the NAS did  
22          before on clearance so they will not have to be  
23          revisiting that?

24          DIRECTOR VIRGILIO: No question about  
25          that. That's a good recommendation. We'll follow up

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1 on that.

2 COMMISSIONER DIAZ: Good. And the IAA  
3 meetings the Commission has been concerned that we  
4 need to be ahead of the curve to be able to provide  
5 input on proposed changes to IAA transportation  
6 standards. Can you tell me what progress has been  
7 made in that area?

8 DIRECTOR VIRGILIO: I think that one of  
9 the most significant ones we had the IAEA Standard  
10 Setting Committee TRANSAC and now we have a seat at  
11 the table there along with the Department of  
12 Transportation. We've parsed the responsibilities and  
13 I think that's a tremendous leg up.

14 We've also started investing more and more  
15 resources in insuring that we are at the technical  
16 review committees. We're there with a statement that  
17 aligned and a purpose. Those will in fact have an  
18 impact on our progress.

19 COMMISSIONER DIAZ: We sit at many tables  
20 and sit at the table in active manner.

21 DIRECTOR VIRGILIO: Yes.

22 COMMISSIONER DIAZ: So that we get ahead  
23 of time what is happening not when it's past the time.  
24 That was always the issue.

25 DIRECTOR VIRGILIO: And the people that we

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1 are sending, the people that are the designated  
2 representatives are those people that will be  
3 aggressive at the table in making sure that our  
4 position and our interests are served.

5 COMMISSIONER DIAZ: Good. Thank you.  
6 Byproducts materials. Staff is saying the policies  
7 that are being reviewed in these areas. I thought we  
8 made a bunch of policies decisions in this area. Have  
9 you come out with a new batch?

10 DIRECTOR VIRGILIO: Not yet. We're  
11 thinking about it.

12 COMMISSIONER DIAZ: You're thinking about  
13 it. Okay.

14 DIRECTOR VIRGILIO: So we're certainly  
15 going to bring them up to the Commission.

16 COMMISSIONER DIAZ: All right.

17 CHAIRMAN MESERVE: They'll be risk  
18 important.

19 DIRECTOR VIRGILIO: Yes, sir.

20 COMMISSIONER DIAZ: You scared me when you  
21 said you got all of this policy issue. We just seemed  
22 to finish. That area. You know what I'm talking  
23 about. So you are thinking about what the policies  
24 issues are. Don't think too hard.

25 CHAIRMAN MESERVE: That's where the risk

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1 comes in. Risk of the Commission that is.

2 COMMISSIONER DIAZ: Last year you know  
3 there was a two phase effort to consolidate and abate  
4 and then assess the Commission in policy and guidance.  
5 What's the status of this?

6 DIRECTOR VIRGILIO: We have just recently  
7 published that Lessons Learned Report that was a  
8 regulatory information document that went out in fact  
9 in ten areas based on our decommissioning experience  
10 and that of the industry where we could in fact  
11 identify lessons learned so that people moving forward  
12 with the Commissioning Plans and License Termination  
13 Plans could actually take advantage. We have things  
14 having to do with effected groundwater, things having  
15 to do with modeling, things having to do with data  
16 collection, the quality of the documents that they had  
17 available, so I think this is a very valuable effort.

18 Now we've also published a NUREG just  
19 recently, a volume one of the Guidance Consolidation  
20 Program and that's now been published for public  
21 comment which is another tremendous effort. I think  
22 we're continuing to make good progress in this area.  
23 It's a two year program. I think we are well on our  
24 way to having it completed.

25 COMMISSIONER DIAZ: Okay. Sometime we

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1 will see all of these things put together.

2 DIRECTOR VIRGILIO: Yes. The two  
3 documents which are out on the street right now which  
4 I think are very good documents consolidating our  
5 guidance and taking advantage of lessons learned.

6 COMMISSIONER DIAZ: I know we do many  
7 things with EPA and sometimes without EPA. This  
8 rulemaking that EPA is proposing for makes waste which  
9 would allow slightly radioactive materials. Can you  
10 give me an update on how you see this progressing?  
11 Where are we?

12 DIRECTOR VIRGILIO: It's been very slow to  
13 progress and I think there's been a lot of fits and  
14 starts in this area. The EPA says that they are going  
15 to start on this again and then we don't see a lot of  
16 progress. There are complimentary rules that they  
17 were working on, one to allow storage of slightly  
18 mixed contaminated waste and mixed waste at NRC.  
19 Storage facilities are under this rule to allow  
20 storage waste in the facilities.

21 COMMISSIONER DIAZ: Can you speculate?

22 DIRECTOR VIRGILIO: I would hate to  
23 speculate on given the fits and starts that have  
24 surrounded this rule in the past.

25 COMMISSIONER DIAZ: Are we giving enough

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1 attention to the issue? Do you think that it is  
2 something that we should --

3 DIRECTOR VIRGILIO: I think through -- and  
4 other mechanisms we are providing attention and if it  
5 starts to accelerate we'll engage.

6 COMMISSIONER DIAZ: Okay. Last question  
7 for Mr. Miller. Somebody said sometime ago I can't  
8 remember who he was that when the rover meets the  
9 road. I don't know where they get that but I guess  
10 they blame you for having all this rover all the time.  
11 What can you tell us that the region is hearing on  
12 these issues from stakeholders and from communities  
13 and from facilities regarding high level waste issue  
14 and transportation? What are you hearing that is  
15 important for us to know?

16 MR. MILLER: Much of it recently honestly  
17 has been related to security.

18 COMMISSIONER DIAZ: No kidding.

19 MR. MILLER: So we hear a whole lot about  
20 that. The relative safety. Fuel burn is. Fuel as it  
21 would be in the spend fuel surge pad.

22 On the transportation side, honestly we  
23 have not heard a whole lot but it impinges on us other  
24 than what we just read in the popular press. I can't  
25 offer a real prospective there. As I mentioned

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1 earlier, I don't think initially we appreciated how  
2 much public interest there would be on these ISFSIs.

3 So there is no formal hearing in most  
4 instances. There is a very strong press and the  
5 members of Congress of course are very much involved  
6 in this now.

7 We're making tough decisions. I have in  
8 some instances have had to say no. What I mean by  
9 that is folks want access to my inspectors for  
10 example. And in some instances, it's the wrong thing  
11 to do to channel that through the appropriate people  
12 and the like. It's quite intense I would say the  
13 interest in ISFSI and it impinges on us. It's a  
14 growing issue. That's why I brought it up at the  
15 beginning.

16 COMMISSIONER DIAZ: Do we have a  
17 communication plan that we could actually when the  
18 time comes serve us well to interact with the  
19 communities in the areas where these questions are  
20 going to be arising? Is there enough thought being  
21 put into saying is this what it is? Is this what they  
22 mean? Is this what the risks are? How are we going  
23 to deal with it? Is that available?

24 MR. MILLER: Well we're learning. We had  
25 a recent meeting actually in Massachusetts associated

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1 with the Pilgrim site. We got help from Marty and his  
2 folks, Congressman Delahunt and others. They called  
3 for us to answer a lot of basic questions. It's my  
4 impression that we're assembling a standard set of  
5 questions and answers that are serving us well and  
6 that we can use in all of the different forums.

7 One of the things that we're preparing for  
8 example our people who are going out associated with  
9 our end of cycle meetings which all of the regions are  
10 going through over the next month or so is to be able  
11 to have folks answer at a broad level at least these  
12 questions that are out there in the minds of people  
13 about spent fuel. That's part of our communications  
14 plan.

15 Beyond that, Commissioner, I think that it  
16 becomes a very site specific service thing. If it's  
17 real intense like it is at Indian Point where you have  
18 a very specific program established almost at this  
19 point I'm not sure we need a communications plan per  
20 se just the kinds of questions and answers that we  
21 have available. I think that's what we're learning  
22 and we'll see. If it needs more, I think we've gotten  
23 a lot of support from headquarters.

24 COMMISSIONER DIAZ: Do we think we can  
25 properly communicate what the risk is on this facility

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1 so that people can realize that 20 miles away they're  
2 not going to be dropping dead because I think  
3 sometimes people get that impression? I think if we  
4 don't provide that information the myth will survive  
5 and grow.

6 MR. MILLER: I think you are right and  
7 that is why I think public meetings are things well,  
8 I said we are saying no in some instances. I don't  
9 mean to suggest that we're not aware of the need to  
10 put out information. It's a matter of supporting the  
11 right meetings or in the right things to get the  
12 widest possible dissemination of this information.

13 COMMISSIONER DIAZ: I agree with the point  
14 of your question.

15 DIRECTOR VIRGILIO: I would just add that  
16 it seems like if I look back three or four years ago  
17 we started to recognize that as we sent staff out to  
18 talk to the locals in the Nevada area about Yucca  
19 Mountain that was when we were receiving almost as  
20 many questions about the transportation issues as we  
21 were about the waste, storage and disposal issues.  
22 At that point in time, we started formulating  
23 communications plans with a little "c" to be able to  
24 respond to questions, to have presentations, to have  
25 booths and displays. Most recently we've developed a

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1 brochure that we will be sharing with the Commission  
2 before we start to use it.

3 It's been completed so there are a number  
4 of things we are doing. If I look out into the next  
5 few years, I see transportation being a major issue as  
6 far as stakeholder confidence is concerned. More and  
7 more efforts will spent on making sure we have  
8 communications plans and that we implement them. That  
9 we actually get out and make sure people understand  
10 what the risk is.

11 COMMISSIONER DIAZ: Capital "C" and  
12 capital "P" might be more adequate.

13 DIRECTOR VIRGILIO: Yes.

14 COMMISSIONER DIAZ: Thank you, Mr.  
15 Chairman.

16 CHAIRMAN MESERVE: Mr. McGaffigan.

17 COMMISSIONER MCGAFFIGAN: Thank you, Mr.  
18 Chairman. I'm going to just follow up probably on the  
19 issues that have already been discussed for the most  
20 part. The KTIs. You have 255 left according to the  
21 arithmetic the staff gave us. The DOE has given us  
22 information on 53 of those 255, leaving 202. DOE also  
23 plans to submit in this fiscal year 85 more or try to  
24 give you information. You will have to decide whether  
25 it is adequate or not.

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1 I add all that up and that's a lot more  
2 than 60. You said your goal for the year was to close  
3 out 60. Shouldn't our goal be more in pace with DOE  
4 program? If we already have 38 in hand and we're  
5 pretty darn sure we're in pretty good shape on 10,  
6 need some additional information on 21, and documents  
7 partly received on 22, 60 is something you may achieve  
8 by April 30th let alone September 30th. So what  
9 should our goal be for closing these things out?

10 DIRECTOR VIRGILIO: I think I'd like to  
11 answer that question after we see this latest  
12 rebaselining effort by DOE. We started out with our  
13 plan based on DOE's original proposal now that they've  
14 gone through and rebaselined. I think what we need to  
15 do is to see where they are, how many they are going  
16 to submit and at what point in time.

17 We should get as many done. I think the  
18 bottomline is we should get done as many as we can.  
19 We should have them all addressed before the license  
20 application is submitted to us. This rebaselining is  
21 going to have an influence on the schedules.

22 COMMISSIONER MCGAFFIGAN: I think it is  
23 very important that DOE take this seriously and move  
24 off on it. I think mostly because the GAO report this  
25 293 which is now 255 is something that has great

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1 credence. There are senior members of the United  
2 States Congress that think there are 293 major things  
3 that are on it and --

4 DIRECTOR VIRGILIO: Right.

5 COMMISSIONER MCGAFFIGAN: Many of these  
6 are very straight forward. You have identified the  
7 small number that are going to significant work on  
8 DOE's part. Isn't it true that some of these don't  
9 have to be done before the construction authorization  
10 license application? There are items that really lend  
11 themselves to being confirmed later in the process.

12 DIRECTOR VIRGILIO: This is being  
13 evaluated today. Let me step back and address what  
14 you said. I think that if you look at them, you can  
15 say roughly two-thirds of these 293 were really  
16 related to having DOE submit additional document.

17 COMMISSIONER MCGAFFIGAN: Right.

18 DIRECTOR VIRGILIO: To support statements  
19 that they've already made to us. Then the other one-  
20 third I think is related to documenting obligations  
21 that DOE has made or commitments that they've made to  
22 perform additional tests and analysis. So that should  
23 give you a sense of the significance. If two-thirds  
24 of them are just really tell us why you said that and  
25 then one-third is that you really need to do more

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1 tests and analysis.

2 COMMISSIONER MCGAFFIGAN: This question is  
3 obviously a leading question but I'll say it anyway.  
4 How many of these agreements would affect the decimal  
5 point three points to the right of 15.001, when you're  
6 in the one-thousandth of a millirum level per year  
7 during the 10,000 year period? Our standard is a  
8 reasonable expectation that there be 15 millirums to  
9 the reasonably maximumly exposed individual fruit to  
10 the 10,000 year performance, the first 10,000 of your  
11 life. I can't imagine.

12 I can understand the package performance  
13 and a few of those things getting at the 15 mill or  
14 maybe to the first decimal point or maybe to the 15.  
15 Some of these things that I've seen are nice to have  
16 things that maybe will help somebody draft a paragraph  
17 on a safety evaluation. But really it almost has no  
18 relevance to whether they are going to make 15  
19 millirums in the period.

20 How are we trying to discipline the  
21 process of it focusing on the standard? We didn't have  
22 the standard for much of this period. Now we have the  
23 EPA standard that we have incorporated into our rules.  
24 It's a reasonable expectation over 10,000 years that  
25 the reasonably maximumly exposed individual won't get

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1 more than 15 millirums.

2 That's not a perfection standard. It's  
3 one that they've applied at WIPP. God knows at WIPP  
4 they applied it with resources that are minuscule  
5 compared to the resources of this agency. So are we  
6 overdoing it?

7 DIRECTOR VIRGILIO: One of the things that  
8 we're currently looking at now is as to how to use the  
9 risk insights from the performance assessment to focus  
10 on which one of these agreements and which one of the  
11 issues have the most impact on barrier performance,  
12 the sensitivity analysis. I don't know and I couldn't  
13 answer your question how many really relate to the  
14 decimal point issue.

15 COMMISSIONER MCGAFFIGAN: I think that as  
16 you go forward you need to focus things on --

17 DIRECTOR VIRGILIO: Absolutely.

18 COMMISSIONER MCGAFFIGAN: On whether this  
19 is really relevant to making a judgement about the  
20 standard or not as it's now been proposed. I want to  
21 join Commissioner Merrifield in urging DOE and first  
22 of all you to get your documents into the Licensing  
23 Support Network.

24 I think there are securities issues. I  
25 can't imagine that very many of these documents have

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1 anything in them that would aid a terrorist. If the  
2 location of the Yucca Mountain, we have one meter  
3 resolution photography of every square centimeter on  
4 the face of the earth thanks to U.S. commercial  
5 satellite firms now and I think that the location of  
6 the Yucca Mountain is well-known. I'm not sure what  
7 a terrorist would particularly want to attack. I just  
8 don't know what it is that are in these documents that  
9 would be aiding a terrorist.

10 The transportation routes when the  
11 transportation campaign ultimately begins a decade or  
12 more from now, will be sensitive. We intend it to be  
13 sensitive. DOE intends that to be sensitive. We  
14 won't be sharing that information except with the  
15 states and whatever they need to know.

16 The documents it strikes me we need to get  
17 ours in. Judge Bollwerk says show good faith. Then  
18 maybe we can DOE to get its vastly larger inventory of  
19 documents in because I think it could be one of the  
20 pacing items in this hearing and in our ability to  
21 start the hearing. So I just wanted to second that.

22 With regard to restricted release and  
23 institutional controls, again I just want to second  
24 Commissioner Merrifield in encouraging you to think  
25 about Plan B. I think DOE has given us every

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1       indication that Plan A is not going to work but I  
2       think they think that The Bureau of Land Management  
3       wants to become The Bureau of Radioactive Land  
4       Management or something. Secretary Norton may have  
5       different views about that.

6               But if that's their attack they're not  
7       going to be interested in taking our additional sites.  
8       I think we have to think about permanent licenses.  
9       We've told the State of Ohio that it's okay for them  
10      to have permanent licenses compatible with our current  
11      rule. We may have to amend our rule in allowing  
12      people to only go to an industrial scenario rather  
13      than having to do the resident permit.

14             It's always the most restrictive for  
15      growing garden and taking vegetables out of their  
16      garden. If the sites are going to be used for  
17      industrial purposes, they should only have to be  
18      cleaned up to that standard. We can have an active  
19      goal, this institution in sending people out every  
20      five years or ten years and make sure the deed  
21      restrictions are still working.

22             Otherwise we're going to spend millions,  
23      hundreds or millions, billions of dollars taking  
24      slightly contaminated dirt from one place in this  
25      country to another, probably making both cleaner. I

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1 don't know that that's the best use of even private  
2 sector funds let alone public sector funds.

3 The Commissioner mentioned he's from the  
4 Granite State. I've to get his exact quote here but  
5 "The way God made it." When he said that I was  
6 thinking of the Granite State and whether much of the  
7 Granite State would pass our restricted release  
8 criteria.

9 (Laughter.)

10 CHAIRMAN MESERVE: Not the Granite  
11 outcropping I grew up on I'll tell you that much.

12 COMMISSIONER MCGAFFIGAN: My brother lives  
13 in New Hampshire by the way and I had my Ludlum Micro  
14 R Meter (PH) with me one year helping my son with his  
15 science project and his basement was the most  
16 contaminated place that I came across other than  
17 Capitol Hill during my ventures with my Ludlum Micro  
18 R Meter (PH).

19 CHAIRMAN MESERVE: I used to tell people  
20 that the most dangerous thing I did everyday was  
21 taking a shower with the radon exposure.

22 COMMISSIONER MCGAFFIGAN: I wonder if  
23 Christie Brinkley has granite table tops or not.  
24 Somebody better warn her.

25 You mentioned entombment and you mentioned

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1 cost saving. Clearly there are Florida Power or  
2 others that are interested in entombment but I think  
3 there is a public health or at least a occupational  
4 work health issue that drives entombment for many of  
5 us. Former Commissioner Rogers.

6 Going in out and carving out the internals  
7 in these reactors and getting them out and shipping  
8 them off to a low level waste site gives a lot of  
9 people real exposure. They get REMs. All limited  
10 number of people get data on some of these things.  
11 Fifteen people will get 40, 50, 60 REM during a year  
12 going into Havendack (PH) or Manackee (PH) or  
13 someplace and hauling the internals. It would  
14 motivate many of us to improve the reactor vessel at  
15 Trojan being entirely replaced at Hanford (PH).

16 So I think there is a real health benefit  
17 that weighs there as well. I just mention it tacitly  
18 under low level waste. We're not pursuing entombment  
19 as a low level waste option. We are really pursuing  
20 it as a decommissioning option.

21 Some of the states argue that we will  
22 creating low level waste sites. I think that our  
23 argument is that that's not what we're doing. We're  
24 decommissioning a site. We're going to do it if we  
25 approve that entombment is an option but that has

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1 nothing to do with a low level waste site. It is  
2 making a reasonable judgement as to how to protect  
3 public health and safety in decommissioning this  
4 facility. We will have continuing arguments with the  
5 states but I won't characterize entombment as a low  
6 level waste issue.

7 I guess EPA is something that I can't  
8 resist. There's something in Today's Nuclear Fuels  
9 where Ray Clark of the EPA said in his presentation  
10 that "EPA would review the DOE license application"  
11 but he added "that he wasn't sure if the agency would  
12 be a party in a licensing hearing." Now it isn't  
13 clear if he's talking anymore from the article. "EPA  
14 clearly doesn't have a statutory role in the  
15 proceeding." Okay, he said it.

16 Do they have enough to do at that EPA?  
17 Honestly if they are going to review a massive  
18 application against what, I'm not sure, against our  
19 Yucca Mountain review plan or God knows what, they  
20 must not quite have enough to do unless they plan to  
21 become a party in which case they probably should be  
22 asking Congress for money so that they can buy lawyers  
23 and get involved.

24 Again, I'm asking a rhetorical question.  
25 No. I'm going to touch that. Right? Some of my

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1 questions lend themselves to that.

2 EPA's role was defined by Congress. It  
3 was to set the overall standard which we were to  
4 pursue and incorporate into our implementation  
5 standards. I'd urge their leadership to think about  
6 whether they want to be reviewing the license  
7 application or becoming a party to the hearing. They  
8 are welcome to if they have the resources or if  
9 Congress wants to give it to them. They are welcome  
10 to do that.

11 On the financial assurance issue. I regard  
12 it as related to the institutional controls issue, the  
13 restricted release issue in that. This rulemaking you  
14 are talking about doing later this year, is it going  
15 to assume that they're working to unrestricted  
16 release? I mean that you said that one of the things  
17 that drives the differences in cost is that they  
18 sometimes will assume that they are doing onsite  
19 disposal which is usually restricted.

20 If they are not doing that, if that's what  
21 their decommissioning estimates are based on then they  
22 are always going to be underestimating if we can't  
23 solve the institutional control issue. They may be on  
24 target if we can't solve it. But without having  
25 resolved the institutional control issue, how do you

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1 go ahead with the decommission of financial assurance  
2 because it isn't clear what financial assurance target  
3 it's being judged against? If it's unrestricted  
4 release we can't make restricted release work.  
5 Professional license or whatever we come up with to  
6 make restricted release work, then there will be a lot  
7 of people who are very severely underfunded.

8 DIRECTOR VIRGILIO: I think we will have  
9 an opportunity to dialogue. We have a Commission  
10 meeting in the spring to talk about these very issues  
11 around financial assurance. The second broader look  
12 is something that we thought about doing after we  
13 started the first rulemaking and it may overtake the  
14 first rulemaking. You're right. We may have to  
15 consider all these other things when we started out  
16 with a simple change in mind. I think the issues are  
17 much more complex.

18 COMMISSIONER MCGAFFIGAN: In the simple  
19 rulemaking, against what standard are they making  
20 their guesstimate as to what it's going to cost them  
21 to clean up? Is it unrestricted release or is it  
22 restricted release?

23 DIRECTOR VIRGILIO: I don't believe we  
24 specify. I think we allow them the freedom to select  
25 what method they are going to use.

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1 COMMISSIONER MCGAFFIGAN: Are we going to  
2 make the other method work if some of them are going  
3 to use it? Thank you, Mr. Chairman.

4 CHAIRMAN MESERVE: I would like to thank  
5 the staff for a very helpful presentation. The  
6 activities that you undertake in the waste arena are  
7 very important to the Commission and also have broad  
8 public interest. So your efforts in this area are  
9 very much appreciated. With that, we are adjourned.

10 (Whereupon, the above-entitled matter was  
11 concluded at 3:40 p.m.)  
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