UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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BRIEFING ON DECOMMISSIONING ACTIVITIES AND STATUS

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Nuclear Regulatory Commission

One White Flint North

Rockville, Maryland

Tuesday, October 18, 2005

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

COMMISSIONERS PRESENT:

NILS J. DIAZ	Chairman of the Commission
EDWARD MCGAFFIGAN	Member of the Commission
JEFFREY S. MERRIFIELD	Member of the Commission
GREGORY B. JACZKO	Member of the Commission

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

STAFF AND PRESENTERS:

LUIS REYES, EDO

DAN GILLEN, Deputy Director, DWMEP

DR. MICHAEL RYAN, Chair, ACNW

MARTY VIRGILIO, Deputy Executive Director, MRS

JACK STROSNIDER, Director, NMSS

KURT HAAS, Big Rock Point

JEFF LUX, Kerr-McGee Corporation

ROBERT MAIERS, State of Pennsylvania

DR. DONALD HUDSON, Chewonki Foundation

P R O C E E D I N G S

CHAIRMAN DIAZ: Good morning.

The Commission is meeting this morning to hear from the Office of Nuclear Material Safety and Safeguards and the Advisory Committee on Nuclear Waste on the status of the NRC decommissioning program.

Following the staff, we will be very pleased to hear from several stakeholders who will discuss their experiences and perspective on various aspects of decommissioning.

This meeting, as you know, is an annual update that is provided to the Commission in the decommissioning programs.

Since the last briefing a year ago, the staff has published NUREG-1814, the first integrated decommissioning status report, completed the integrated decommissioning status report for fiscal year '05, and published the integrated decommissioning improvement plan.

The decommissioning program, as some of us who have been for years now, has made many positive advances over the last several years. Nevertheless, as we always say, there are a few challenges ahead. Challenges that like my good friend Sam Collins will say, represent opportunities for continuous improvement to the decommissioning process.

So we will be particularly interested in hearing what the staff, our stakeholders and the committee can do to continue keeping the Commission informed and in order to improve the decommissioning program.

At this point, I would like to take the opportunity to recognize that Commissioner McGaffigan is back with us. He is smiling. That makes me wonder. But we are pleased to welcome him back.

If my fellow Commissioners have any other comments?

COMMISSIONER MERRIFIELD: I have a couple of comments I would like to make. The first is I would like to join you in welcoming Commissioner McGaffigan back to the fold. As you know, Mr. Chairman, I've sort of dubbed myself the resident historian on the Commission, at least -- we have a resident historian in SECY's office, Sam Walker, but as far as the history of the Commission goes, I think this is historic, and it has been noted in the press that Commissioner McGaffigan is in his third term which is a first for the Commission.

So I congratulate him on that one, whether there will be many more to follow is certainly a question mark.

CHAIRMAN DIAZ: Well, I've been challenged.

COMMISSIONER McGAFFIGAN: I'm still only fifth ranking in terms of length of service. The Chairman and I are only a

couple of days apart.

He is fourth ranking, I'm fifth, and next year we will pass a few people

COMMISSIONER MERRIFIELD: But as anyone having gone through the Senate confirmation process knows, those are always difficult to do. And the fact that he has done it three times is worth noting.

The other comments I would like to make, Mr. Chairman, are relative to the meeting that we are having today with our staff.

As you and the staff are well aware, decommissioning is an area that I have long taken a great interest in since coming to the Commission, and I'm celebrating almost my seven years on the Commission in just a week. It is one I think we have made a significant amount of progress.

The staff has been investing a lot of time and resources to assisting our licensees in moving forward with decommissioning activities. I think there is a lot of progress that has been undertaken both at the reactor sites and as well as the non-reactor sites, having accomplished -- an accomplishment in meeting our health and safety goals and in ensuring that these facilities are brought back to a condition that can allow their productive re-use for our society.

I'm always surprised, I always seem to find new things in

decommissioning that I'm not always aware of. Most recently about ten days ago, I had the opportunity to go out to Lacrosse, Wisconsin, which is where we have the former 50 megawatt reactor that was operated by Dairyland Power. This was built by the Alice Charmers Corporation, which also brought us tractors. And as you may well know, that reactor was dubbed the tractor reactor.

What surprised me about that particular site was the fact that there was, in fact, a lot of decommissioning activities that have already been undertaken. And indeed, the staff -- the staff who were at the site, those who were involved in maintaining it, have been dedicating about two-fifths of their time toward actually decommissioning the reactor. So at this point, they are about 20 percent along the way.

From my standpoint, having watched these issues, that was relatively below the radar screen. I think it represents a lot of positive progress, and I think there are some lessons at that site, like other sites that we have, that we need to learn from, that our licensees need to make track of and certainly keep in mind for potential future decommissioning activities.

Had I known that they had done so much, I would have urged that they be on our panel here today. Perhaps for their benefit they weren't up until recently.

But nevertheless, I think there is some information there which is useful for the Commission to know. I have encouraged them to come forward to us. They have a lot of activities that will be ongoing forward in the future relative to the vessel that they hope to take out and have disposed of in the next couple of years.

So there is a lot here today. There's a lot ahead of us. Again, Mr. Chairman, I want to recognize the accomplishment of our staff in that regard and certainly appreciate having the opportunity today to discuss some of these issues with our licensees and our staff.

CHAIRMAN DIAZ: Thank you Commissioner Merrifield..

COMMISSIONER McGAFFIGAN: Mr. Chairman, I would just add on Commissioner Merrifield's point. I thought -- is there a provision in the Energy Policy Act bearing on Dairyland and the Lacrosse reactor? I thought there was some --

COMMISSIONER MERRIFIELD: I don't remember that one in particular.

COMMISSIONER McGAFFIGAN: It was floating around. I just don't know whether it was in the final bill.

Lacrosse is a -- would be in the DOE section of the bill. The Secretary of Energy shall undertake a decommissioning program or accelerated decommissioning. I thought there was something there.

But the other fact about Lacrosse is its spent fuel pool

contains only steel clad rather than zircalloy cladding fuel. And it has been cooling for, what, 25, 30 years -- 20 years. So there ain't much left in it, and there's no zirc clad fire possibility, and it is a very, very safe place, since we are having this dialogue.

I want the people of Wisconsin to understand that this is not -- even though it is close to the Mississippi River, it is a very safe and protected spent fuel pool.

CHAIRMAN DIAZ: Thank you.

Commissioner Jaczko.

COMMISSIONER JACZKO: I just want to say briefly, I want to welcome Commissioner McGaffigan back as well. Commissioner McGaffigan has been confirmed for the third time. I look forward, I guess, to being confirmed for the first time.

(Laughter.)

COMMISSIONER McGAFFIGAN: Actually, it was the fourth time, because when I was a foreign service officer I was confirmed -- I have a Gerald Ford/Henry Kissinger plaque at home somewhere.

COMMISSIONER MERRIFIELD: You don't need to go bragging.

COMMISSIONER McGAFFIGAN: No, no.

(Laughter)

COMMISSIONER JACZKO: On the topic of decommissioning, I think it is, in many ways, very appropriate right now that we are having a discussion of decommissioning while we are also in the process of having a very wide-ranging discussion of potential new reactors. And I think it is a good opportunity, really, to show the commitment that this Commission has always made to really living up to our mission to take not only the sites that have been operated safely, but then have been able to be decommissioned and the land then certainly for in particular with the reactor sites to be returned to a very pristine state, and to something that can be used for a wide variety of public uses.

So I think it is very timely that we are doing this now, and I look forward to the discussion.

CHAIRMAN DIAZ: Thank you very much.

Commissioner Lyons is on official travel. So he regrets not to be here.

With that, Mr. Reyes.

MR. REYES: Good morning, Chairman, Commissioners. We're here for to brief the Commission on the NRC's decommissioning program.

I'm joined at the table by Marty Virgilio, the Deputy Executive Director for Materials Research, State and Compliance

Programs; Jack Strosnider, the Director of the Office of Nuclear Material Safety and Safeguards; Dan Gillen, who will make most of the presentation for the staff, who is the Deputy Director for decommissioning out of the Division of Waste Management in NMSS; and Dr. Michael Ryan, the Chairman of the Advisory Committee on Nuclear Waste.

The NRC presentations today will be followed by a second panel of presenters. I would like to welcome and thank Mr. Kurt Haas of Big Rock Point, Mr. Jeff Lux of Kerr-McGee Corporation, Mr. Robert Maiers of the State of Pennsylvania, and Dr. Donald Hudson of the Chewonki Foundation for their participation today.

Since our last briefing in October of 2004, the decommissioning program has significant accomplishments. The staff presentation will discuss these accomplishments and will also address the issues included in the Commission staff requirement memorandum following last year's briefing.

My memorandum to the Commission dated September 22nd, 2005, transmitted to you the annual status report for the decommissioning program, which coupled with today's briefing will provide you with important information on where the NRC's decommissioning program presently stands and where it is going in the near future.

I will turn over the presentation to Dan.

MR. GILLEN: Thank you, Luis.

Good morning, Chairman. Good morning, Commissioners. And welcome back, Commissioner McGaffigan.

This annual presentation is my third since joining what is now the decommissioning directorate of the Division of Waste Management and Environmental Protection in the Office of Nuclear Material Safety and Safeguards.

And second slide, please.

Because you are all familiar with the overall decommissioning program, this morning I will limit my introductory remarks of the program framework to who and what is involved.

After that brief programmatic information, I will present the past year's decommissioning accomplishments as they are aligned with the NRC's strategic goals.

This will be followed by discussion of the issues that you included in the staff requirements memorandum for last year's briefing. And I will end by addressing remaining issues and challenges and outlining the program's path forward.

Next slide.

Although I will try to avoid acronym use during my presentation, I provided this slide just for reference of a list of those

acronyms that are in my presentation.

Next slide, please.

Although the Division of Waste Management and Environmental Protection manages most decommissioning reactors and complex material sites and has the lead report on the overall NRC decommissioning program, there are other NRC organizations that are significantly involved in decommissioning.

The Division of Fuel Cycle Safety and Safeguards in NMSS manages the decommissioning of uranium recovery facilities and the partial decommissioning activities at operating fuel cycle facilities. The Office of Nuclear Reactor Regulation manages the decommissioning of the Millstone and Indian Point power reactors, three early demonstration reactors, Vallecitos, the Nuclear Ship Savannah and Saxton, and all research and test reactors.

Regions I, III and IV have a combined project management responsibility for about 19 complex material sites and have inspection responsibilities for all sites undergoing decommissioning.

The regions also terminate most of the non-complex sites, i.e., those that are not requiring a decommissioning plan.

The Office of General Counsel provides valuable legal review of decommissioning actions and provides advice on

decommissioning policy matters. The Office of Nuclear Regulatory Research continues to provide information supporting dose modeling of releases of radioactive materials from decommissioning sites. Research has developed analytical tools that provide technical support on site-specific issues and has participated in new decommissioning guidance development.

All these contributions to the overall decommissioning program are integrated through development of the annual report, through participation and guidance development, through involvement in regional counterparts meetings and periodic decommissioning board meetings and through the day-to-day interaction between project managers and inspectors.

Next slide.

Approximately 200 materials licenses are terminated each year. However, most of these are routine and require little remedial action, if any, to meet the NRC unrestricted release criteria. The decommissioning program focuses on those sites which involve more complex decommissioning activities and require development of reclamation plans, decommissioning plans or license termination plans.

Currently, the NRC universe of complex decommissioning sites include 18 nuclear power reactors, 17 research and test reactors, 38 complex material sites, 12 uranium recovery facilities and 3

operating fuel cycle facilities with partial decommissioning.

In addition, the Agreement States are responsible for decommissioning certain complex material sites.

Next slide, please.

As a lead-in to my discussion of the decommissioning programs FY 05 accomplishments, this slide summarizes the program's objectives. The objective of ensuring that sites are decommissioned to be protective of public health and safety so that they may be available for future use aligns with the NRC's strategic goals of safety and security.

The objective of continuously seeking opportunities to improve the manner in which we regulate the decommissioning of nuclear facilities aligns with the NRC strategic goals of effectiveness and openness. To manage activities associated with this continuous improvement objective, we have developed the integrated decommissioning improvement plan or IDIP.

The IDIP is a consolidation and integration of several improvement-related activities into one focused plan. The license termination rule analysis issues, the decommissioning program self-evaluation recommendation the Commission issues from last year's briefing and the decommissioning communication strategy all have been brought under the IDIP umbrella and many of the

accomplishments I will summarize are pieces of that IDIP.

Next slide.

During the past year, the decommissioning program has had significant accomplishments in all of the NRC strategic goal areas. Under the safety strategic goal, the decommissioning program seeks to review and approve plans, monitor and confirm decommissioning activities and ultimately terminate licenses and release sites in a manner protective of public health and safety in the environment.

This year, we have reviewed and approved two license termination plans for the Big Rock Point and Yankee Rowe power reactors and four decommissioning plans for the Pathfinder, Eglin Air Force Base, Fort Belvoir and Michigan Department of Natural Resources complex material sites. We have completed more than 50 additional decommissioning-related licensing actions and have reviewed final status survey reports associated with four sites.

Throughout the decommissioning activities Regions I, III and IV have conducted risk-informed inspections of all the sites. And perhaps most significant this year, we have completed decommissioning activities at ten complex facilities, the Trojan and Maine Yankee power reactors, the ATK, Augustana College, Engelhard-Ravenna, Kerr McGee Tech Center, Kiski Valley Water Pollution Control Authority, and Michigan Department of Natural

Resources complex material sites and the Sohio Western L-Bar, Petrotomics uranium recovery facilities.

Next slide, please.

The next three slides present a visual example of these accomplishments.

You see on Slide 8 the Maine Yankee Nuclear Power Plant as it was during operations.

If you go to the next slide, here is decommissioning of that site in progress with the partly demolished containment dome.

And the last slide. And here is the site today reduced down to only a small licensed area with the independent spent fuel storage installation.

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Although security is not a major issue at the nonoperational sites in decommissioning, we have taken the necessary actions to ensure these sites are secure.

We have worked with the Office of Nuclear Security and Incident Response to an issue specific security related correspondence and orders to decommissioning licensees. These orders include enhancing security during transport of certain radioactive materials and establishing reactor requirements for the protection of safeguards information.

In addition, we have reviewed the Office of Nuclear Security and Incident Response Commission paper on the material control and accounting program review.

And lastly, security matters are always included in the areas addressed during inspections at decommissioning sites. Next slide, please.

This slide presents the decommissioning program accomplishments that align with the strategic goal of ensuring openness in our regulatory process. The staff has developed communication plans for all sites in decommissioning and for certain specific decommissioning issues. These plans are reviewed and updated on an quarterly basis.

In January, we published NUREG 1814, the 2004 Annual Decommissioning Report. We have just submitted in September the 2005 annual report by memorandum to the Commission.

These annual reports are reference documents that describe the decommissioning process, summarize the current status of decommissioning activities, discuss accomplishments and identify program issues to be addressed in the following year.

During 2005, we completely updated the external decommissioning web site to include site maps and summaries, links to program regulations, guidance and other documents, descriptions of

the decommissioning process, and links to lessons learned, responses to frequently asked questions, financial assurance information, international decommissioning activities and a public involvement page.

And I'm already aware that a number of you, if not all of you, have already been to that web page and are using it.

We have just published as part of our communications strategy a decommissioning brochure to provide key information for the public. Copies of this brochure are available today on the tables to the entrance and have been provided to the Commission in their packages.

Throughout the past year, we participated in many site specific public meetings including meetings on decommissioning activities at Shieldalloy, West Valley, Trojan, Humboldt Bay and Hematite. And in April, we hosted a two-day decommissioning stakeholders workshop, at which we gathered input from 200 stakeholders on several license termination rule analysis issues and on lessons learned. Commissioner Merrifield participated as the keynote speaker at that successful workshop.

Also, the decommissioning program interacts with international organizations and governments in several ways, including participating in International Atomic Energy Agency and Nuclear Energy Agency activities, participating in bilateral and trilateral exchanges with other countries, hosting foreign assignees and developing and

providing workshops to requesting countries.

Through involvement in the international arena, we were able to assist other countries with our experience and lessons learned, and we, in turn, benefit from the experiences that other countries have in decommissioning nuclear facilities.

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The NRC's effectiveness strategic goal has four components: effectiveness, efficiency, realism and timeliness.

With respect to effectiveness, we can look at specific examples of the implementation of the flexibility of our regulations and policies.

For example, for the Kiski Valley site, actions were terminated after the staff performed its own realistic dose assessment and demonstrated that the site met license termination rule unrestricted release requirements, whether the contaminated material was left in place or removed to a landfill.

We have established new restrictive release institutional control guidance and have begun implementing the guidance as we address the Shieldalloy and AAR restricted release proposals.

We have completed decommissioning activities at two reactors, Trojan and Maine Yankee, by applying two different approaches. At Trojan, we have terminated its Part 50 license, leaving

a site specific Part 72 independent spent fuel storage installation license.

At Maine Yankee, the existing Part 50 license was amended to include only the ISFSI on a few acres of land.

COMMISSIONER MERRIFIELD: Mr. Chairman, if I may interrupt the staff's presentation for one moment, just for the sake of completeness, though.

Decommissioning program documents that you provide and the pictures you have today of Maine Yankee show a nice green field. And although we have finished our work at Trojan, no one on the Commission, I think, or in the public should get a misinterpretation. If you go to Trojan, you are going to see what look looks like a nuclear power plant. It's just that all of the radiological decontamination effort which we are responsible for has been completed.

What remains is civil activities of non-contaminated material, which the licensee has chosen to delay until they have more money in their trust fund.

But as far as finishing our role, we are finished there, with the exception of the ISFSI, it's just that it looks different than what we have at Maine Yankee.

MR. GILLEN: Yes. The ISFSI is now transferred to the Spent Fuel Project Office for their management of that aspect.

COMMISSIONER MERRIFIELD: Right.

MR. GILLEN: Region I led our efforts with the Environmental Protection Agency to handle the financially troubled Safety Light site by placing the site on the EPA national priority list. And we recently issued for comment a significant addendum to our consolidated guidance that addresses the license termination rule analysis issues such as realistic scenarios and new institutional control options.

For the efficiency component, we have continued to risk inform our actions, for example, through implementation of the 10 CFR 20-2002 process for alternate waste disposal and through our planned rulemaking to address avoidance of future legacy sites by focusing on leading indicators of decommissioning problems.

We have interacted with EPA through our memorandum of understanding with them to work towards finality of decommissioning sites. This year we have sent three more notification letters and just issued a level two consultation letter for the Cushing site that is nearing termination.

And finally, we have continued to implement process improvement such as applying a proactive up-front approach to licensing, implementing the detailed, consolidated guidance for staff and licenses, improving survey approaches and establishing a system

to benefit from lessons learned.

Next slide.

This is a graphic depiction of how after six years of averaging two sites completed per year, we have achieved four completions in FY 04 and then six completions this year. This just shows the complex sites. So it's actually eight if you count the two reactors.

And we are optimistic that this upward trend will continue into FY 06. This reflects the investments we have made under Commission direction to implement improvements to the decommissioning program's regulatory flexibility and process.

Next slide.

COMMISSIONER McGAFFIGAN: Does that mean that your goals for future years are going to be adjusted? We had that discussion a few times in the past.

You never want to predict you are going to get rid of anything more than one a year or two a year. I just have not seen the documents.

I have been gone for 103 days, so I assume that there are been documents floating around about goals.

MR. GILLEN: We don't have as a green book goal a number anymore. But --

COMMISSIONER McGAFFIGAN: You don't have a goal anymore?

MR. GILLEN: No. But we do expect the trend to go up at least until we start getting to less sites. And then, of course, then it can't continue to go up.

We have to adjust every year, because some sites are -- have actions that take place that are beyond our control that push them into the next fiscal year. So we adjust each year.

Next year, we expect to exceed the six complex material sites of this year.

COMMISSIONER MERRIFIELD: The problem you get into with setting a goal is if you set a goal of a number of sites, what ends up happening or could end up happening is what happened over at EPA, they do a low hanging fruit, and do all the easy stuff first and it seems like they are making a lot of progress. And we end up with all the hard stuff left.

COMMISSIONER McGAFFIGAN: Has there been an OMB PART review of this program?

MR. GILLEN: I will get to that in a second.

With regard to the realism component of the strategic goal, we have begun to implement the realistic scenarios for dose assessment rather than typically defaulting to the resident farmer

scenario. Realistic scenarios have been for the MDNR, Cabot, Kiski Valley and SC Holdings sites. NMSS continues to work with the Office of Regulatory Research to develop more realistic analytical tools and procedures.

In addition, we have expanded the restricted release options to include the long term control license and legal agreement restrictive covenant forms of institutional controls. As mentioned earlier, we are implementing these approaches at the Shieldalloy and AAR sites.

The timeliness components of accomplishments are evident in the completion of major review activities. That is, license termination plans and decommissioning plans, faster than in the past.

Additionally, we have established the stretch metric to improve the timeliness of license termination plans and reviews by 30 percent over the next 3 years.

Next slide.

This graph illustrates the progress in the timeliness of license termination plan reviews.

And in addition, not shown in the graph, since the issuance of the decommissioning consolidated guidance, we have improved the average decommissioning plan review time from 26 months per review before the guidance to 14 months per review after

the guidance.

Next slide, please.

Following last year's briefing, the Commission raised five issues in its staff requirements memorandum.

We have initiated efforts to implement a knowledge management system for capturing and sharing decommissioning lessons learned. Actions toward this goal include holding a stakeholder workshop, establishing our lessons learned website, taking the lead to establish a lessons learned panel and session at the upcoming waste management '06 symposium, and working with the Fuel Cycles Facilities Forum, the Nuclear Energy Institute, and the Organization of Agreement States to propose a series of linked web sites for lessons learned.

As an example of lessons learned in action, Indian Point 2, an operating reactor, recently experienced a leak in their spent fuel pool. Based on our experience with remediation of contaminated soil, we contacted NRR to share our lessons learned and to provide sources of guidance useful to the staff and licensee in their efforts.

Regarding the issue of NRC's radiological monitoring response, our contractor, the Oak Ridge Institute for Science and Education, has indicated that they can respond to licensees with 72-hour notification.

We also will continue to use available state resources for sample collection and to use NRC and licensee side-by-side sample collection coordination.

As discussed previously, effective coordination with EPA and resolution of issues through the memorandum of understanding will help address the issue of finality of decommissioning. And for the related issue of consistency with states in the conduct of decommissioning, we recognize that in a few circumstances states have opted to impose more restrictive criteria.

On this issue, we have elected to work with the states in general through our decommissioning workshops and through the use of state assistance in developing and reviewing NRC guidance documents.

And on the last issue from the SRM, as I have already mentioned, we have issued draft guidance revisions to enhance the flexibility of the license termination rule implementation.

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I'm running out of time. I'm not sure I can get a few minutes extra because of the questions or not, but I will try to finish.

Although the decommissioning program has resolved many difficult issues as it has evolved over the last several years, site specific and programmatic challenges remain. Sites such as AAR and

Shieldalloy that are seeking restrictive release options and others such as Salmon River that are unlicensed and/or in financial difficulty need to be addressed.

Programmatic issues include effectively dealing with decommissioning knowledge management and completing decommissioning at sites that grandfathered under the old SDMP criteria.

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In addition to our day-to-day licensing actions to complete site decommissioning, there are three program activities this coming fiscal year that stand out.

First, there are some -- actions in the integrated decommissioning improvement plan to be completed this year including finalizing guidance revisions and drafting a proposed rule on prevention of future legacy sites.

Secondly, the Office of Management and Budget will conduct a Program Assessment Rating Tool review, the PART review, Commissioner McGaffigan --

COMMISSIONER McGAFFIGAN: I'm glad its now and not five years ago?

MR. GILLEN: Of the NRC decommissioning and low level waste program this fiscal year -- note in my slide there's a typo. It

should be program assessment rating tool. It says performance assessment. I'm so used to saying performance assessment.

We will need to build upon the experiences of other programs already receiving a PART review as we complete this activity.

And third, we hope to achieve significant advances in developing and benefitting from a system that identifies and documents lessons learned as today's complex sites are decommissioning.

The last slide.

So I conclude by noting that the decommissioning program has matured significantly to one which has clear regulations and guidance, is flexible, is open and is producing successful results that are protective of public health and safety and the environment.

As we implement policy recently established, we continue to deal with challenging technical and policy issues. And to effectively handle these challenges, we continuously are seeking to improve our framework and our process through the integrated decommissioning improvement plan.

Thank you. And I'm a little bit over but now I will turn it over to Dr. Ryan.

DR. RYAN: Thanks very much, Dan.

Thank you, Luis.

Mr. Chairman and Commissioners, good morning. I

appreciate the opportunity to be here with NMSS. This is a bit of a departure for the committee but a welcome one.

Commissioner McGaffigan, congratulations on your reappointment.

I'm hear to tell you chapter one of what think is a success story. We interacted very early on with the NMSS staff on decommissioning. We took advantage of attending the public workshops that were held just across town.

We found that to be an extremely valuable early education process for all the committee members. It brought us up to speed, not only with what the issues were from stakeholders that participated in the working groups that were held over those few days, but also what the staff's view and approach was to decommissioning.

So it was a very effective way for us to become educated very quickly. And wherever those opportunities come up in the future, we look very hard at participating in an active way in those public forums. It was very helpful to us.

That led to the formation of a working group meeting back here at NRC at a regular ACNW meeting where we had a number of participants.

I hasten to mention quickly that Dr. James Clark, our lead member on decommissioning activities, was instrumental in our work in

this area and in producing a letter which we delivered to you summarizing our advice on August 12th.

Members of the working group meeting were Eric Abelquist, from the Oak Ridge Institute of Science and Education that Dan mentioned already; Virgil Autry, who's a retired state regulator and has been responsible for several major decommissioning efforts, one at the Allied general plant in Barnwell, the Naval Shipyard in Charleston, and so forth. So he had a wealth of very early experience on decommissioning activities.

Eric Darois, who's with the Radiation Safety and Control Service in New Hampshire has participated in New England reactor decommissioning; Tracy Ikenberry from Dade Moeller and Associates who has been involved in western projects, and Thomas Nauman from the Shaw group, who again has a wealth of experience in decommissioning projects.

The good news about this working group is it was not the experts talking to the committee. It was an interaction among the experts, members of the committee and members of NMSS staff.

But I think that interactive day was very helpful. And the one comment I took away was from Robert Johnson, again a lead staff person in NMSS who said we now have a very rich transcript to mine for good ideas on how to make our guidance better.

The important part from our perspective is we were able to offer that interaction to the staff and guidance to you in the early phases of the development of the guidance process. So we hope that and we think that the guidance which has just come out in the last weeks will certainly reflect that interaction, will be very forward thinking and responsive to stakeholder input.

A couple of the highlights are our support of the generic guidance implementing the license termination rule, but with caution for site-specific factors being especially important for partially restricted sites and for the use of intentional soil mixing. Good ideas but be careful. So there is a couple of cautions there.

We support the staff's preference for long term control license rather than a protective covenants approach. There might be some challenges in areas to protective covenants. But, certainly, it should not be ruled out. But our preference seemed to lead toward the issue of a long term license in certain cases.

So the success story is I think we have had a really strong interaction from the beginning, and it has led us to be in a position where we are side by side, I think, with the staff on understanding what their views are, offering them our insights and advice and then moving forward.

I will not repeat many of the things that Dan has already

mentioned in his presentation. So I will turn attention now to the forward looking activities.

We are leaving directly from this meeting to go up to West Valley and to hear some briefings there on the methods and models that they intend to use in performance assessment, how they are going to look at their activities up there and do their modeling and monitoring.

So we will get an early picture of how things can be applied.

We are going to also read and understand the comment process as it occurs with NMSS on the guidance that's now out there. We will be studying the guidance. We will be studying along with the staff the public comments and other comments that come in on the guidance and see what reaction we might have and interact with the staff as that process moves along.

We will be looking toward detailed discussion of the performance assessment of the West Valley Demonstration Project as that project develops. We feel it's been a very good interaction, very productive for us.

I think the guidance that we offered in turn has been productive to hopefully make the guidance that's now out there a little better than it might otherwise have been. So we appreciate the opportunity to be here.

We look forward to perhaps at our own briefing later on in January updating you further on these activities as well as our normal briefing. But I appreciate the opportunity to be here today with you

CHAIRMAN DIAZ: Thank you, Dr. Ryan.

MR. REYES: That completes the first panel staff presentation. We are available for questions.

CHAIRMAN DIAZ: Thank you very much. We appreciate the presentation. And, you know, realizing that Commissioner McGaffigan has been experiencing withdrawal symptoms for some time, we are doing to let him go first.

COMMISSIONER McGAFFIGAN: I can't tell you that I have mastered all the stuff in the book, because my colleagues have wanted me to vote on certain things and I have been giving priority there in the three or four days I have been back. But I have a couple of question that is either -- legacy questions. First, I wanted to start by complementing you.

I think this is the time to have a PART review as I said earlier. I think are you in very, very good shape compared to the past and I think compared to other agencies who have are involved in decommissioning activities. And you have a very good story to tell.

One thing I noticed, and I know it's been fixed because this has been -- most of my briefing for this material came from reading

the article in "Inside NRC." But this paper was marked "official use only" when it came out.

MR. GILLEN: Which paper are we talking about?

COMMISSIONER McGAFFIGAN: The September 22nd memorandum, status of Decommissioning Program - 2005 Annual Report.

I'm sure Commissioners ask themselves why in God's green earth is this official use only. Just like before I left, there was this June 14th memo on GSI 189. I know that one got fixed while I was away.

But, is there a bias that's been creeping in here to label things as benign as the Decommissioning Plan Annual Report?

MS. VIETTI-COOK: We took it off and we did release it.

COMMISSIONER McGAFFIGAN: But I just worry about the bias.

This comes to the Commission, Commissioners pay attention because there's a Commission meeting coming up. But how much of this --

MR. GILLEN: That was not a conscious bias –

COMMISSIONER McGAFFIGAN: Did you guys label it "official use only" in your shop.

MR. GILLEN: I guess we probably did.

COMMISSIONER McGAFFIGAN: It says -- I haven't memorized exemption five but this is -- this would never be passive -- I'm wandering into legal space which Commissioner Merrifield warns me about. But this would never be withholdable under -- the reason I ask it is Mike Knapic who provided me information more often that I provided him information during the months I was away at one point was so frustrated with you guys he was thinking that he was going to say, give me all the OUO documents between date and date and FOIA them.

But as private citizen for that 103 days, I'll tell you, I was frustrated with the amount of information my staff had to withhold from me because I only had access to public information. My former staff -- now staff, because they were very careful. And yet, I was reading about it somewhere. And it was sort of funny.

The Chairman's letter to the Congress about the Energy Policy Act.

I will get off.

MR. GILLEN: Our intent was that it be on the web pages as soon as it got to you. So that's an oversight.

COMMISSIONER McGAFFIGAN: OUO is not predecisional. Whatever, I don't know what it is. But we have got to be careful there.

EPA interactions. My annual question usually addressed to others. How is it going?

I mean, Saxton, Kirkland are a couple of my favorite sites. They are totally non-complex. There's totally no issue. Yet they triggered the EPA criteria. And you always assured me or your predecessors assured me that everything was going to be hunky-dorry once they were finished.

Saxton and Kirkland presumably they will be finished like this year?

MR. GILLEN: Saxton is weeks away from being terminated.

COMMISSIONER McGAFFIGAN: Europian and something else that would short half lives, that were barely above the EPA consultation criteria.

Did EPA ever formally come back and say not to worry?

MR. GILLEN: No. Let me give you a brief summary of where we are on that, including those two sites. Originally when we started to implement the MOU, we had a list of 13 sites that were already in our hands that were triggering the EPA MOU.

Of those thirteen we sent six letters in the past two years to the licensees which we termed a notification letter because we were already into the DP review process and decommissioning.

The other ones were -- of the remaining ones there were five that were determined subsequent to our putting them on the list, they had already cleaned up to levels below them, so were not triggering a consultation with EPA at all.

One of those triggered a level two consultation, which is the one we just sent out, which is Cushing.

And then, there's the last one, is level two consultation is in review. That would be the Battelle site.

Of the six letters that we sent out, including Kirkland and Saxton, those two in particular have already been subsequently looked at and in looking at their final status surveys, and their levels are below the EPA.

So as we --

COMMISSIONER McGAFFIGAN: If they had been above, there still would not have been a problem in my mind.

MR. GILLEN: There are two avenues to go once you get to the end. You still have something above the criteria, which in case we trigger a level two consultation, or you have nothing, in which case, we don't need to continue with EPA.

COMMISSIONER McGAFFIGAN: Does EPA acknowledge that?

MR. GILLEN: Yeah. They are aware of that.

That is just the way the process work.

We make sure we note it in our documentations. What is of interest, though, is this level two consultation for Cushing that we just issued yesterday, as a matter of fact. We are setting up a meeting with them to have consultation. That really will be the test.

COMMISSIONER McGAFFIGAN: Which radionuclides are involved at Cushing?

MR. GILLEN: It's just uranium.

COMMISSIONER McGAFFIGAN: Okay.

MR. GILLEN: We have established an ACL and we have exceeded their MCL.

COMMISSIONER McGAFFIGAN: Which EPA can do in its on decommissioning.

MR. GILLEN: That's true.

We do have hopes that once we will sit down at the table with EPA, they will see all the arguments that we have for why wouldn't this protect public health and safety. And although maybe we didn't use the same processes and in the exact way they would have done it if they had it, they will see that we have done a good job and met what's necessary.

COMMISSIONER McGAFFIGAN: For those of us been around here too long, this is just a comment, not a question, I

remember the dialogue with Carol Browner in 1996, where she was suggesting changes that we should make before we issued our license termination rule, and ACL's was one of them.

So I hope peace is breaking out.

Thank you.

MR. GILLEN: In the interest of finality, this will be kind of a test case.

CHAIRMAN DIAZ: I would like to take this opportunity to remind the staff that we need to get crisp answers because the Commissioner has a limited time --

COMMISSIONER McGAFFIGAN: Only five minutes.

CHAIRMAN DIAZ: And so your crisp answers are needed.

COMMISSIONER McGAFFIGAN: I think you did fine. I just didn't get to a third question I might have asked.

CHAIRMAN DIAZ: Commissioner Merrifield.

COMMISSIONER MERRIFIELD: The Decommissioning Status Report indicates that we have reviewed approximately 50 financial assurance reviews during FY 2005.

And I just want to get a sense of the characterization of how these went. Were they routine, relatively minor issues identified? Were there more major problems?

MR. GILLEN: I think routine. I'm not aware of any major problems with any of the financial assurance reviews that we conducted.

COMMISSIONER MERRIFIELD: So we found sufficient information to determine we were assured that they had their house in order as it relates to the financial assurance.

MR. GILLEN: That's correct.

COMMISSIONER MERRIFIELD: I will probably give you a more specific question later on to some of that, but probably that's good for these purposes.

I guess, I will ask one followup question.

If you had found anything of significance, how would you have gotten that information to the Commission?

MR. GILLEN: If we had?

COMMISSIONER MERRIFIELD: Yes.

MR. GILLEN: Well, we still have our annual report to you on sites with financial difficulty.

The report that we provide you at the end of --

COMMISSIONER MERRIFIELD: So you would have rolled that up in that report at the end of the year?

MR. GILLEN: Yes.

COMMISSIONER MERRIFIELD: I note that the

Department of Army, Fort Belvoir site, which did have a former reactor there, although not under our authority, was added to the list of complex sites.

I'm wondering why we have added what looks like, at least from the website, a relatively straightforward decommissioning site to that list?

MR. GILLEN: Generally, we have sort of a -- you may say, an arbitrary definition of what a complex site is. We have chosen to do that by just saying what sites trigger submittal of a decommissioning plan to us.

In that case, Fort Belvoir determined that they had enough contamination there that they wanted to put their program into a decommissioning plan and submit it to us.

So that's what triggered it being on the list. There's a wide range of complexity in the sites that are on that list. This is a lower one.

COMMISSIONER MERRIFIELD: Is the former reactor at that site incorporated within the scope of that plan, or is that outside of what we are taking a look at?

MR. GILLEN: I may have to ask one of my staff.

STAFF: It is outside.

COMMISSIONER MERRIFIELD: You noted in terms of

the many other issues that we are dealing with we have the upcoming activities associated with decommissioning of the Savannah. I know MYRAD has been attempting to get money from that in the appropriations process with a desire to dispose of the vessel at Barnwell prior to the closure in 2008.

How is that overall process going and how are we interacting with MYRAD in that disposal activity?

MR. GILLEN: I can't answer that question. Hopefully someone from NRR who has the project management responsibility for Savannah is here and could come to the podium.

STAFF: Savannah has been working on characterization studies. We have a meeting with them the begin of November where they will present some information on characterization.

They are primarily working on determining the waste classification of the reactor vessel and the internals so they have started the process leading toward decommissioning.

COMMISSIONER MERRIFIELD: As far as we know right now, are they still planning on trying to get that into Barnwell before closure?

STAFF: That's going to depend on how the classification of the reactor vessel and internals come out.

COMMISSIONER MERRIFIELD: I would be interested in

having you keep me informed on that. Thank you.

One site that we have oversight of, Western Nuclear Incorporated has had an issue associated with acquiring off-site property in conjunction with decommissioning efforts. And this has created some issues in terms of their coming to completion.

When will the staff's evaluations issue be submitted to the Commission for a decision?

MR. GILLEN: You are picking out all the areas that I don't have direct responsibility for, Commissioner, although I did used to work in uranium recovery. A lot has happened since I left that arena.

Is there someone from fuel cycle that can address Western Nuclear here today?

If not, I'll get that answer for you and send you something on that.

COMMISSIONER MERRIFIELD: That success for a Commissioner. I keep asking questions until there's no one here to answer.

One final note I would make. The paper that you sent forward on decommissioning, this is the September 22nd paper, in that on page 11, you list fuel cycle facilities undergoing decommissioning. And I would just say by way of transparency, it really ought to say partial decommissioning, because, obviously, there are more activities

underway at those and certainly gives a different color than what you would see at --

MR. GILLEN: Right. Partial should have been in there. I agree.

COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman.

CHAIRMAN DIAZ: Thank you, Commissioner Merrifield.

Commissioner Jaczko.

COMMISSIONER JACZKO: The first question I have is an educational question for me.

What is historically the motivation for the split between some power reactors that are in decommissioning being maintained with NRR and some being at NMSS?

MR. GILLEN: I can give you what I think is the answer. It happened before I came into the program. But when we were going through the process of negotiating with NRR to get when and how we would transfer sites to get to the decommissioning point to us, at that time, I think there were 20 sites -- 20 reactors. Two of those were reactors that -- Indian Point and Millstone -- that had enough complexity and activity going on, stakeholder involvement at the sites that NRR said we need to really maintain project management over the both the decommissioning aspects and the operational facilities at that site.

And then the other three were early demonstration reactors, and I guess they were well into the Saxton decommissioning and they elected to keep Saxton and the ship Savannah and Vallecitos.

So those are the five that they kept.

COMMISSIONER JACZKO: And that will -- is there any --

MR. GILLEN: I don't see any other ones being kept by ACL. Anything else that comes into decommissioning they will turn over to us.

MR. REYES: We will follow up a similar approach if you have a multi-unit site and one of the units goes into decommissioning, if you have operating units and interested public, et cetera, et cetera. We will probably keep it with NRR. It makes sense the way we are designed.

COMMISSIONER JACZKO: I'm just looking at -- that's the only one that's -- there are some that are in NMSS that do have operating units, for instance Peach Bottom –

MR. GILLEN: That's true.

COMMISSIONER JACZKO: So you are saying the second factor is --

COMMISSIONER McGAFFIGAN: How active the decommissioning is.

COMMISSIONER JACZKO: Or how active the interest is

in the decommissioning?

COMMISSIONER McGAFFIGAN: SONGS is there because they are actually doing SONGS One.

COMMISSIONER JACZKO: The issue that I had got some interest in a little while ago was some of the issues going on with decommissioning and how this relates to some of the alternative waste disposal under 20-2002.

In June, the Commission finalized an SRM that directed the staff to look at ways to enhance the public awareness and understanding of that process.

I wonder if you could comment a little bit, a., if it came up during the decommissioning workshop, if you got any comments there and where you are in that process of reviewing that.

MR. GILLEN: Yes, we did get comments during the workshop.

Right now, we are continuing to site specifically deal with 20-2002 requests that come to us as the process is laid out. But as you indicated, we have an SRM that has asked us to look at the process in terms of stakeholder involvement. And we are doing so.

We have a schedule for a Commission paper to come to you by the end of this calendar year.

COMMISSIONER JACZKO: I mean, you said you did get

questions -- or comments during the workshop?

MR. GILLEN: Yes. I'm not exactly sure what areas they are in. Some might have been just technical issues related to the 20-2002 process. I'm not so sure there was much in terms of the stakeholder involvement.

COMMISSIONER JACZKO: And you're on target to meet that? I think it was 180 days.

MR. GILLEN: Yes.

COMMISSIONER JACZKO: The final question. This is just to follow up a little bit on something that Commissioner Merrifield had raised with financial assurance.

Right now it's my understanding there's essentially these group one and group two sites, I guess we would called them troubled sites or sites that we don't have rock solid financial assurance for.

Right now I think there's only one that was in group one which was Safety Light.

Where are we with the 12 sites in group two?

MR. GILLEN: We are working the issues, although we have -- and I'm not sure exactly I don't have at my fingertips the list of those 12. Although one of them I know was a site that we just sent a D note up to you and I think Commissioner Merrifield has asked for a briefing on the Salmon River Site. That is a site which is really owned

by one couple and they have no money to clean up the site. It's a mills tailing sort of a site, and we have elevated that into a level one and will be addressing that in our annual report this year.

COMMISSIONER JACZKO: Are there any others of that 12 that look like they might be going up to group one?

MR. GILLEN: No.

COMMISSIONER JACZKO: Are there any that are not on the 12 -- moving up to group two?

MR. GILLEN: I don't think so. No.

COMMISSIONER JACZKO: Thanks. No other questions.

CHAIRMAN DIAZ: Thank you very much.

Let me first just -- I think I'm becoming like Commissioner Merrifield in certain ways. Becoming more of a lawyer as time goes on. It is a compliment.

COMMISSIONER McGAFFIGAN: Karen was going to say something and then she restrained herself.

MS. CYR: I was going to say you're finally seeing the light.

(Laughter.)

CHAIRMAN DIAZ: There was a statement regarding the security of the facilities that have spent fuel and it started with although

it is not a major issue, we do that.

I think that it doesn't reflect how much time we have put and care in ensuring that there is adequate security in this facility. So the reality is that we have considered the security and put requirements in place that are graded and fulfilled our obligation with regard to protection of public health and safety.

MR. GILLEN: Right. It was more a reflection of the amount of time my staff has put into it. NSIR is definitely putting a lot of --

CHAIRMAN DIAZ: Yeah. It is just although it might send the wrong connotation, and I want to make sure that the people of this country know that this Commission has been working all the time, on every one of these issues proportional to risk.

Just a small correction.

There is a series of issues in here, but I'm going to now go and put my engineering hat on this issue. As we go forward, we have learned a lot of things.

The one thing that I have not been hearing of lately is how is technological innovation going to change the way that we actually proceed with the oversight of decommissioning, or how does this impact.

I mean, at one time, we -- I personally thought that, for

example, entombment could be a good way to go, because it certainly would have less radioactivity released to people outside of the site. And a lot of these issues played into issues of economics, time, a lot of them have to do with the relationship of the licensee to the communities.

But in reality in the 21st century, there are series of technological innovations that can and should be used to reduce the radiological dose, as small as it would be, to reduce the amount of waste that needs to be either shipped or taken, even reduces the cost, which I don't think is -- if it can be accomplished within the public health and safety mandate, it is certainly an appropriate thing, because I always believe that the people in this country end up paying for all these things.

So where are we? Do we have anybody looking at how technological innovations proposed by licensees are coming in are going to play a role in the next ten years?

COMMISSIONER McGAFFIGAN: Mr. Chairman, I may just jump in, and I see the clock running. But just last week, DOE, EPA and the State of Washington basically agreed on entombment approach for the U-plant, the oldest of the reprocessing facilities at Hanford. So when you use the past tense, I still believe -- it's just that we don't have a licensee that wants to do it -- I still believe that

entombment is a viable option.

CHAIRMAN DIAZ: I totally agree.

COMMISSIONER McGAFFIGAN: But it's not a priority because we don't have a licensee.

MR. GILLEN: You have led into one of the reasons why we are looking and spending so much time on this lessons learned activity that Commissioner Merrifield is very key on. And it is not just to come up with lessons learned in our processes, meet with licensees early on in the process.

It's technical issues also, which is why we are working -- and we have a meeting set up at the end of this month to sit down with NEI and EPRI and the Fuel Cycle Facilities Forum to get them to also start to create web sites that have lessons learned technologically or process from their standpoint, and link them all together, so that future stakeholders will be able go in and see not just our type of lessons learned, but also those that the other organizations are experiencing.

CHAIRMAN DIAZ: And it you would have to be -- we have to superimpose all the technological innovations, radiological protection infrastructure that ensures that we doing the right thing. But again, the Commission and this agency, we have clearly stated that this is not as zero risk type activity, that there -- you know, we don't need to clean these things to the level where will you not be able to detect

radioactivity.

I remember years ago -- again, I think Commissioner McGaffigan and I are getting old, reminiscing too much -- but when we started to look at some of the issues of the solid waste and whether -- how we were going to go at it, people were talking about the technology and the technology keeps getting better, better and better. And we talk about measurability within a framework that would allow us to make determinations.

I think eventually in this area, this concept of what is it that can be measured that it is protective of public health and safety has a major role to play, because if not, people will be spending enormous amounts of money for things that are really not providing a benefit to the public health and safety. And so, the technical aspect needs to be a major component of what we do.

MR. GILLEN: We continue to convey our message as we go out to symposia like ICEM and Scotland and the waste management every year and learn also while we are there the innovations that being brought by the stakeholders.

COMMISSION MERRIFIELD: Mr. Chairman, if I may jump in for a moment.

One that I thought Dan might mention but didn't, there was recent use of a soil aeration technology at Yankee Rowe which

resulted in a significant reduction in the amount of material that ultimately had to be moved off site. And one of the things they did -- and this goes to your other point -- is they set a specific detection criteria, they put in a default number.

It was above, obviously detect and what they could measure, but it was more in accordance with what was the measurable background at that site. And that resulted not only in a significant reduction in the amount of material that they would otherwise have to have shipped off site for quite expensive disposal, but it allowed that material to be taken virtually out of the machine that being utilized and put right back into the site where the soil was being filled.

I think that is the kind of thing that you're talking about in terms of using a more innovative technology to reduce the cost of the clean up, to do it in a way that is fully protective of our public health and safety requirements and allow the licensee to do it in a more expedited way.

CHAIRMAN DIAZ: We have one final question?

COMMISSIONER MERRIFIELD: Mr. Chairman, I did have one question. We did not really get into that much -- you touched on it in your slides. You have made a lot of comments today about decommissioning of the reactors. We talked a lot about material licensees where we have undergone efforts.

One of the areas we didn't really touch on very much today was the issue of research and test reactors undergoing decommissioning at the universities. A lot of those are either in possession only or in various stages of decom either approved or in amendment.

I'm wondering very briefly if you could just paint a picture as to where that part of our decommissioning activities are.

MR. REYES: Different department.

MR. GILLEN: You have managed to hit all three areas that my group has no --

MR. REYES: Dan has enjoyed all the questions, sir.

COMMISSIONER MERRIFIELD: Maybe next year we will have them sit at the table.

STAFF: I think we are making good process in the research and test reactor area. Out of the 17 reactors that were mentioned by number, we have three that are on the verge of being, their license terminated.

A number of other reviews are ongoing, and DOE has made significant progress in removing fuel from sites which then allows decommissioning to proceed.

So I think we are going to continue to make good progress in that area.

COMMISSIONER McGAFFIGAN: Waste-incidental-to-reprocessing, is that group very integrated with your group, given that you work with West Valley?

MR. GILLEN: It is the other half of the division.

COMMISSIONER McGAFFIGAN: Okay.

COMMISSIONER MERRIFIELD: Mr. Chairman, I'm going to say if staff can make my last question as my request for yet one more briefing on that element of our activities. And I would suggest next year if we are going to have a decommissioning program briefing, that we have it with a bit more breadth so I don't have to keep dragging folks out of the audience to answer my questions.

CHAIRMAN DIAZ: Commissioner Jaczko, do you have anything else?

COMMISSIONER JACZKO: No.

CHAIRMAN DIAZ: All right. If not, thank you so very much.

The next panel, please come join us.

Good morning. I want to thank all of the members of this panel, Mr. Hudson, Mr. Maiers, Mr. Lux and Mr. Haas, for joining us today.

I don't know if you have talked among yourselves whether you have a certain order, but I don't see in my notes in here that Mr.

Haas from Big Rock was supposed to start. Is that correct?

MR. HAAS: I can be first.

CHAIRMAN DIAZ: Well, you're on the left side. Would you please.

MR. HAAS: Good morning, Mr. Chairman, Commissioners. It is an honor to be with you this morning.

My first couple of slides are just for your information, a little bit of a background about the project. The photograph from home here --

Next slide. Next slide.

This is a site picture from about a year ago. We are relatively small site, but when we are done, we will have removed all buildings and structures including foundations, except that small stone rip rap you may see proceeding into the bay.

Next slide.

We are a small oversight with what I call a very large budget.

Next slide.

From the start of the project, we have had one vision, and that's to restore the site in a fashion that brings praise from all stakeholders. Now, this vision is more easily achieved with some stakeholders than others, but the recipe is the same.

Good communication, participation and involvement from all stakeholders and meaningful oversight.

This vision has driven a philosophy for the project that says we are going to go anywhere for anyone at anytime to talk about the project, and most importantly, to listen to their questions, concerns and ideas.

Next slide.

So, in that spirit, I'm here to talk to you very briefly about some opportunities that I see.

I'm going to start with a couple of areas that I think the staff has done very well in.

Operating plan inspection to reduce future decommissioning problems in legacy sites. It's going to save -- pay large benefits in the future.

And the Commission has very effectively risk-informed the inspection of decommissioning projects so we have that meaningful oversight.

Next slide.

Here's three areas that I think we can continue to do a little bit better in.

First of all, continuing to improve license termination plan approval process.

The process is improving. But for Big Rock, for example, a small site, an easy site because we're removing all structures including foundations. The process still took 24 months. That cost time and money.

I think that the target of under 12 months is probably in order.

The second slide -- I would like to have that slide up there again.

Back one, please.

COMMISSIONER MERRIFIELD: Slide 7, please. Go back.

Mr. HAAS: There we go. I think it's important to continue to improve the final site survey process. My project is in the ninth year and hopefully, the last year. And we will be getting into final site surveys within that year.

I hope that we will take opportunity to continue to improve the process so that we can affect the final site survey in a very efficient fashion.

The third opportunity I have on this slide is to continue to improve the communication with local stakeholders. Remember one of those important ingredients to success is good communication. I think in general, the staff has done very well.

I urge them to look for continued opportunities to sit down with stakeholders.

Now, for the larger opportunities.

Next. That's it.

Capturing lesson learned.

I know that Commissioner Merrifield, this is one of your priorities. And I think the industry has some room for improvement.

We have had dozens of visitors to our site, literally from around the world. But they are usually from areas and projects that are involved in decommissioning.

I'm wondering where the people are that will be building the next round of plants, the AE's for example.

I know that the first priority of operating plants is to run those plants safely and efficiently. They have not had much time to think about their future. I think that it would pay them some dividends.

Radwaste disposal options, your recent and definite deferral of rulemaking relative to low-level radioactive waste is a bit of a disappointment. For my project, a small project, we are looking at about $75 million before we are through. And that is just what I call the curb cost, once we put the trash on the curbside, for example, for pick up.

There is significantly more dollars involved to survey and

prepare the materials before we can even release them. And I think now is the time to really get on with affecting some efficiency improvements for future decommissioning sites.

And lastly, we can never truly be decommissioned until we can send our spent fuel off site, spent fuel and greater than class C waste disposal. It should be a huge priority for us, and I know that it is.

That's basically the project from Big Rock and our opportunities for the future.

CHAIRMAN DIAZ: Thank you.

Mr. Lux?

MR. LUX: Mr. Chairman, Commissioners, I appreciate the opportunity to share lessons that we have learned in the process of decommissioning several licensed sites.

First slide, maybe.

Next slide, Slide 2. Slide 2, please.

Wrong presentation.

CHAIRMAN DIAZ: Why don't you go ahead.

MR. LUX: Okay. I will just go ahead.

The first lesson has to do with flexibility and interpretation of regulations and regulatory guidance.

Overly conservative interpretation of regulations that trigger the license termination rule has virtually stalled the

decommissioning of one of our sites which is currently a grandfathered site being decommissioned under the SDMP program.

A rigid interpretation of the timeliness rule has forced some licensees to decommission portions of their facility when it would have been more appropriate to perform source term removal and defer final decommissioning until later. Many licensees are stuck in a position of being unable to release solid materials because of inconsistent interpretation relative to release criteria.

That was just alluded to here by Mr. Haas. So I feel, first of all, flexibility in the interpretation of regulations is needed to address these obstacles.

Another lesson we learned is that we need to characterize our sites with the decommissioning process in mind.

At our Cushing site, we used MARSSIM methodology, which is good methodology, to characterize our site. But after spending millions of dollars in site characterization, found that the survey techniques really didn't adequately delineate and define material that required removal.

As a result, we removed substantially more material than we had characterized. And the material that characterization had indicated required removal didn't very often require removal.

We wound up shipping 75 percent of the volume of our

material which was below the decommissioning criteria.

So we learned that if are you going to use in process, measurement, scanning, excavation as you dig, then your characterization should be more oriented toward identifying starting points than delineating and defining quantities.

There are other in-process considerations that are important. At your Cushing site, the NRC used in-process inspection and confirmation of our measurements to verify our that program and our measurements ensured compliance with requirements.

As a result, NRC has cut way back on the confirmatory survey post decommissioning and that is going to substantially expedite license termination.

Being able to sort material in-process rather than based strictly on characterization would also yield substantial savings in cost and time.

And the ability to modify the decommissioning process in response to conditions encountered in the field would also provide some substantial savings.

Twice at Cushing the NRC approved changes in our decommissioning plan that enabled us to substantially save cost and time with no reduction in the safety or protection of the environment.

Slide 5.

Performance-based decommissioning. We recognize that NRC has to ensure that licensees have qualified personnel, a good radiation protection program, adequate funding, that decommissioning limits are appropriate and complied with prior to license termination. But licensees desire the maximum amount of flexibility in getting from where we are to those final criteria.

And when NRC staff reviews decommissioning plans at a very low level of detail, not only does it add a lot of time to the process, but it reduces the flexibility in decommissioning.

COMMISSIONER McGAFFIGAN: I think you meant high level of detail.

MR. LUX: Thank you. At a high level of detail. That's correct.

Slide number six,

DCGL derivation. No surprise the derivation of your limits is very critical. We have definitely learned that. For naturally occurring radionuclides like uranium and thorium, DCGL is based on default exposure values, may be indistinguishable from the variability and background. And, in fact, an NRC-sponsored research project at our Cushing site demonstrated that.

Consequently, the use of reasonable exposure scenarios is critical.

DCGLs can be determined prior to extensive site characterization. There are only certain properties that you need to know to develop DCGLs, and those should be established early in the process.

Finally, DCGLs should be developed for all media and should consider intermedia relationships.

I'm aware of a number of sites for which soil DCGLs were derived and complied with only to find later that, lo and behold, the soils were creating a ground water problem. The interrelationship between media had not been considered adequately.

Regarding the NRC/EPA MOU process, the memorandum of understanding, I just beg, plead and urge the NRC to involve licensees in that process. It's in all parties' interest to ensure that information transmitted to EPA is accurate and relevant. And providing a vehicle for licensee input into that notification could avoid some of the problems that we have encountered as owners of two of the sites to which the MOU applies.

NRC could provide information that is meaningful to EPA that is not typically provided such as the involvement of state regulatory agencies, DCGLs developed both on the basis of dose and risk, and previous or existing EPA involvement in those sites.

I believe NRC must understand that licensees are very

concerned about the information that NRC provides EPA, and that inaccurate or misleading information could result in licensees slowing down or deferring decommissioning due to concerns regarding information that was provided.

As a member of the field cycle facilities --

COMMISSIONER McGAFFIGAN: If Mr. Chairman would let me?

CHAIRMAN DIAZ: Sure.

COMMISSIONER McGAFFIGAN: Could you amplify? Do you believe that whether they call them level one letters to EPA that you saw, probably simultaneously to EPA receiving them, were misleading and inaccurate at your sites?

MR. LUX: Yes, I do. That's correct.

COMMISSIONER McGAFFIGAN: Both of them?

MR. LUX: No. The first notification letter regarding Cimarron site had problems. The second one just sent out on Cushing was excellent.

COMMISSIONER McGAFFIGAN: So we're improving.

MR. LUX: That's correct. That is correct. These are lessons learned. You are right.

As a member of the Fuel Cycle Facilities Forum, I truly appreciate the fact that NRC personnel sometimes attend meetings.

During these meetings we gain a greater appreciation for issues of concern to NRC and believe that NRC staff gains a greater appreciation for the issues that confront fuel cycle licensees in decommissioning.

I just encourage the Commission to see that that continues.

Slide nine.

I have already briefly addressed the fact that at times, source term removal should be preferred to decommissioning and the timeliness rule should be implemented in such a means to provide for that.

Also, some licensees have had portions of their sites released but were later told that the released area would have to be addressed again prior to license termination. And obviously, this causes some concerns regarding finality.

NRC has allowed the subdivision of sites into different areas to decommission in phases or in discrete efforts in some cases, disallowed the same approach in others. The difference as discussed by fuel cycle licensees, appears to be in the interpretation of regulations or guidance rather than in substantive issues.

Finally, there is a lot of confusion among licensees regarding the disposition of licensed material at disposal facilities that

are regulated by environmental regulatory agencies at non-licensed facilities. And I feel that should be cleared up.

In conclusion, I do believe both the NRC and licensees are learning lessons as we gain experience in decommissioning. Challenges do lie ahead. And those challenges represent opportunities for both licensees and NRC to improve the process. And I believe the integrated decommissioning improvement plan implemented by the decommissioning directorate has tremendous potential to be a great vehicle for continued progress, and I commend them for the progress they already made in areas like intentional mixing and alternatives for restrictive release, reasonable exposure scenarios and so forth.

And once again, I thank you for the opportunity to present these.

CHAIRMAN DIAZ: Thank you.

Mr. Maiers.

MR. MAIERS: Thank you, Chairman Diaz. I would like to thank the Commission for again inviting Pennsylvania to participate in this meeting. Pennsylvania has many current and past examples of decommissioning experiences that provide valuable lessons learned to both the NRC and Pennsylvania Bureau of Radiation Protection.

Last year, David Allard presented an overview of these decommissioning experiences.

My presentation today is going to focus on a unique Pennsylvania decommissioning project focused in 2003.

This project resulted in the successful remediation of a large historic building contaminated by the production of radium compounds the early 1900's.

Slide 2, please.

Radium production and utilization began in Pennsylvania relatively soon after its discovery by Marie and Pierre Curie in 1898.

Radium was processed at numerous Pennsylvania sites in the early 1900s. The primary use of radium was in medicine.

In 1909 an industrialist named Joseph Flannery was informed his sister was inflicted with cancer that might be treatable with radium, but learned it was not readily available.

This was the primary reason he started Standard Chemical Company. Standard Chemical Company was formed in 1911 and operated at a mill in Canonsburg and a laboratory in Pittsburgh to process the radium.

Next slide please. Slide 3, please. The Flannery Building was built by Joseph Flannery, President of Standard Chemical Company in 1911, and it contained the laboratories that performed the final radium separation using fractional crystallization methods. The building is known as either the Flannery Building or the Venadium

Building. The building is constructed of steel frame and masonry and consist of five stories, a mezzanine and a basement.

There was approximately 50,000 square feet of floor space in the building. An estimated 180 grams of radium 226 were refined at this facility. The facility operated until Belgium began large scale radium production in 1923 using a high grade ore that drove down the price of radium and forced a shut down of Standard Chemical Company.

The building changed hands many times after liquidation of Standard Chemical Company in 1933.

Next slide please. These are some pictures of the building. The picture on the left is taken from a sales brochure for radium projects produced at this facility. And note the radium flag on top of the building.

The picture on the right was taken during decommissioning. It's amazing how little the exterior of this building has changed over time.

Next slide please.

These are pictures of the 5th floor laboratory. Not surprisingly, some of the highest levels of contamination were discovered on this floor including in the ceiling.

Next slide please. This main vault is located on the first

floor and is a integral part of the building. The original use was to secure the valuable radium. A subsequent owner used the vault for banking.

Next slide please. Residual radium contamination existed on all levels of the building as a result of radium production. Limited decontamination efforts in the 1960s and early 1970s were unsuccessful due to a lack of a comprehensive characterization and a decommissioning plan.

There were no criteria for release of contaminated structures in the 1970s. Reg Guide 186 was not developed until 1974. High density concrete was poured on the 5th floor to shield radiation during early decontamination efforts in the 1970's. Interior renovations covered most of the original surfaces in the building.

Next slide please. The presence of radium contamination resulted in litigation in the failed sale of the building in 1998.

A survey done during litigation was the most comprehensive to date and indicated widespread contamination. This survey used no intrusive techniques so characterization was not complete due to the original surfaces being covered by interior renovations. This survey was used to prepare a cost estimate of $1.2 million for decontamination of the building. After litigation, the owner of the building wanted assurance that a cleanup would result in no

restrictions on future use.

After reaching agreement with the owner, the Bureau of Radiation Protection, issued a decommissioning license, stipulating Reg Guide 186 and NUREG-5849 criteria, in September of 1999. The building was vacated in 1999. Characterization and decontamination work begin in June of 2000.

Next slide, please. Decommissioning efforts took approximately, 2 years. The building was gutted to its basic structure on each floor.

Large portions of the basement floor and contaminated soil beneath were removed.

Approximately 470 tons of contaminated materials were removed and disposed of at appropriate out-of-state facilities. Despite these efforts, limited discreet areas of the building could not be remediated to meet the cleanup criteria, Reg Guide 186 due to issues with structural integrity, inaccessibility and or safety concerns.

The Bureau of Radiation Protection allowed the application of dose assessment to evaluate these areas. The Bureau of Radiation Protection approval was required for these dose assessments and they were documented through the performance of safety evaluation reports. The following slide shows examples of areas that required doze assessments.

Next slide: The picture group on the left shows terra cotta tiles used in the floors and ceiling that were vital to the structural stability of the building. Removal of even small areas of these tiles was not possible from a structural standpoint.

The picture group on the right show steel columns that were enclosed in brick for fire protection. Removal of these bricks were not possible in some areas.

Next slide please. The picture on the left, further excavation around the footer would have compromised the stability of the building. And the picture on the right, the steel column had spots that could not meet Reg Guide 186 criteria despite the use of extremely aggressive decontamination techniques.

Next slide please. In the picture on the left, further remediation of the bricks would have penetrated the wall and compromised the stability.

The picture group on the right, shows pipe chases that were examples of inaccessible areas.

Next slide please. The decommissioning license was terminated in 2003 with no restrictions on current or future use.

The building has since been sold to a developer and commercial use is planned by the current owner. The conservative use of dose assessments were vital during this project and clearly

demonstrate the building is not a threat to public health and is suitable for unrestricted use.

This successful remediation ensures this historic building remains in productive use.

Some of the lessons learned from this project are: A comprehensive characterization would have made decommissioning more effective and efficient.

Another lesson is strict application of Reg Guide 1.86 and NU REG-5849 criteria would require most radiological contaminated buildings to be demolished.

COMMISSIONER MCGAFFIGAN: It would require the Capitol to be demolished.

MR. MAIERS: And finally in-process inspections and on-going interactions between the licensee and regulator were critical for the timely completion of this project.

That concludes by presentation. Thank you.

COMMISSIONER MERRIFIELD: Just a clarification; how much was the cost of all this? You had an 1.5 million estimate.

MR. MAIERS: That was the estimate. The actual cost I believe was in excess of $6 million dollars.

CHAIRMAN DIAZ: Mr. Hudson.

MR. HUDSON: Chairman Diaz, Commissioners: Thanks

for the opportunities to be here.

I didn't prepare any slides. You've got a written statement from me. I'll just summarize it briefly. My involvement with Maine Yankee goes back to 1968 when I watched it being built and I participated in the community advisory panel that helped to decommission it.

And I had a lot of experiences in my life during that time but they all mostly centered around that part of it, the state of Maine. So Maine Yankee has always been close.

When I was asked to participate in this advisory panel as someone with a scientific background and my training is in other fields, and not nuclear science – botany, evolutionary biology. But when I was asked to participate, I agreed because one of the things that I was well aware of by that time in the early 1990s, mid 1990s was that public participation had largely been missing, from at least the commercial side of nuclear power development in our country. And I'm not claiming to represent all of the public. I think I represent the nonaligned public.

I'm not a member of an anti-nuclear group, nor do I participate actively in trying to eliminate nuclear weapons from the face of the earth although I have feelings about both. But I'm not aligned. My impressions are three, primarily, that I would like to share with you.

I think that these community advisory panels are

important parts of the process. They however are not independent and they have no authority. They are creatures of the process.

In most cases, identified and appointed by the decommissioning entity, in our case, Maine Yankee.

However, given that scenario, I think the fact that people came to those meetings, openly, provided for some unique opportunities. And the one that I cited in my statement, I'll just state quickly again, when Ray Shadis stood up at our very first meeting and challenged the company for access to information, Mike Selman gave it to him the next day, told him that night that he could come and see it, and thus began a process that I think otherwise would not have been as open.

It was frustrating for me as someone who manages a small organization but still manages an organization that serves lots of people, has a staff of 70 people and a fairly significant budget for environmental education institution, I'm used to knowing what's going on all the time. Participating in these meetings was sometimes frustrating because I know under this regulatory process, that we weren't getting all the information all the time.

And sometimes I knew it directly because people in the state were telling me things that Maine Yankee wasn't telling me. And sooner or later, the information came out, that give and take, I think is

sometimes frustrating for public participants because they come from worlds that aren't regulated and in which there are not natural boundaries for the exchange of information and thus they want to know tomorrow what information may be available and they can't get it. For example, I was over at the site yesterday. It's almost done.

The license has been terminated but they are still remediating soil.

As I was walking with a group of people trying to find a trail through the 500 acres north of Bailey Point, the state nuclear safety inspector noticed me on the road and stopped and said, I haven't seen you for a while, what's up? And I said, well, looks like they are almost done moving that soil. And he said, well, it's going to be a little while longer. They are actually remediating that soil. They found a hot one down there -- or we found a hot one down there that's not measured in dosage its measured in milli-roentgen per hour. And so I know that this process never ends. In fact, until that last step is taken, process is not over.

That process for us is going to go on for a long time because we now have -- we now host to a ISFSI and I'm participating on the advisory committee as well for the ISFSI. And I'm looking forward very much to keeping abreast with the process of what I described as attempting to close the nuclear cycle which I think our

country is somewhat paralyzed about right now.

I know that that site will not be fully redeveloped so long as that ISFSI is there, simply won't happen. Business people will not take the risk so long as that fuel is there.

Finally, I wanted to share with you -- again, give you a pat on the back.

I can't remember how long ago it was but several of us had become aware of the fact that the NRC and EPA looks at decommissioning slightly differently, to say the least.

And we asked for both agencies to come and talk to us about their approaches, and they agreed on the spot. And within a month, we had a meeting scheduled at Wiscasset High School and there were a large number of people in that audience, over 500 I think, one of the few times during decommissioning which I think the public really came out.

Our last meeting of the panel, the only people from the public were those that were paid to be there.

The public didn't participate. And largely, the public relied on those of us on the panel to do a job and they did not show up to ask questions.

Nevertheless, I would recommend to you, I'm not sure how you translate this into regulations. I tried like the dickens to keep

my life free of as many regulations as possible. So I don't know how you are going to deal with this but I really do think that advisory panels need some level to be institutionalized, but they need also to be flexible so that they can truly represent the public interest at individual sites. So I will finish there.

COMMISSIONER MERRIFIELD: Mr. Chairman, I was going to suggest while Mr. Hudson is in the hat that you wear as the head of the foundation, was wondering before we go to questions, if you can talk briefly about the role the foundation has had. I believe you've taken over control of what was formerly part of the site. And maybe talk a little bit about efforts to -- you talked about ISFSI and the limits it's had on redevelopment. But there is some efforts there at the site for development.

I think that will be interesting for the Commission.

MR. HUDSON: Briefly, The Chewonki Foundation is a environmental education institution and we are involved in a variety of activities, mostly educational, some conservation, direct conservation of land.

We accept gifts of land to be maintained for public access and for recreational values.

Early on in the decommissioning process, I was riding back in an airplane with the chief counsel of Maine Yankee. She said

to me, well, Don, what do you think we ought to do about this decommissioning? And I said, well, Marianne, you got 800 acres there. It would be great if some part of that could be reserved as open space, because 100 years from now, this coast is going to see significant development. And if you can have contributed somewhat to that need, it will be a good thing.

Well, Ray Shadis, if he were here, he would tell you, he'd take credit for that land being set aside. I like to think that I had a small part to play. But 200 acres of land and what amounts in the long run to be a fairly small sum of money was part of a FERC settlement agreement.

And we and two other groups applied to Maine Yankee to receive that money. After a long period of their deliberation and then almost a year by our Board of Trustees to evaluate whether or not we could take on the risk, we ultimately took on the risk but learned in the process by hiring a very expensive lawyer from Washington that we would not be completely free of liability. Which was troubling.

And so we almost didn't take the land but we agreed to take the land. We are now building a trail on it. That trial will connect our campus with the center of town about 12 miles away. Eventually, next year, the reason we were over there yesterday and next year, we will be building a trail across the remaining part of Maine Yankee's land,

interestingly, weaving that trial through what is now in the process of being redeveloped.

The first company is in place and I don't believe that they started operations. Rynal Corporation, a medical materials company has moved from Boothbay Harbor to Wiscasset and built a 50,000 square foot building, or about to proceed.

CHAIRMAN DIAZ: All right, thank you very much. Chairman McGaffigan.

COMMISSIONER MCGAFFIGAN, I'm going to focus on Mr. Maiers. But I will tell you, I like your term, "non-aligned public." I think that's a very good term.

I think like you say, it's the majority of the public but it's not necessarily the majority of people who show up at meetings.

I'm fascinated with this building in Pittsburgh and your experience there.

You did that under Pennsylvania's regulatory authority. And -- what were the problems with Reg Guide 1.86.

You said it was difficult to meet the criteria. We shouldn't have a radium 226 criteria in there but --

MR. MAIERS: Yes, there is one for alpha emitters that we did use. It was 100 dpm for 100 centimeters square. It's a very restricted criteria and it only allows you to exceed that criteria by a

factor of three in certain spots.

We found in this building where there was extensive contamination but at relatively low-levels. The examples I showed were just examples that could not meet that criteria.

COMMISSIONER McGAFFIGAN: I jokingly said earlier, I'm not sure the Capitol with all that New Hampshire granite -- whatever is in there -- is Reg Guide 1.86 as -- does that push you in those sorts of directions?

My children's high school which also happens to be Katie Couric's high school -- my daughter did a little experiment for a science fair that looked at radiation levels. And inside the bathrooms, all that tile we were getting 20, 25 even 27 micro rem per hour using our meter. And I assume that a decommissioning site, some of those numbers start being a problem.

MR. MAIERS: This site in particular was because there was such a variety of materials used. There was marble flooring used in the lobby with high levels of naturally occurring radioactive material.

That was a problem. A lot of this terra cotta tile as well had high levels of naturally occurring uranium which was very difficult for the licensee to deal with.

COMMISSIONER McGAFFIGAN: Why did they have to deal with it?

Mr. LUX: They had to develop backgrounds for the specific materials. It was problematic but we did work our way through it.

MR. McGAFFIGAN: The staff isn't at the table but the -- Reg Guide 1.86 you all complained about, directly or indirectly complained that we haven't updated the release of solid materials rules. But we have guidance documents there the Academy told us were protective of public health and safety in working. And the main decision for us was a resource decision. I can tell you our rulemaking agenda is vast at the moment, security area and others. And EPA has to do a parallel thing. We just couldn't get it to.

But is there something short of working in that area that sorts of looks at this guidance in light of many, many years of lessons learned and updates it and maybe that would be as complex as the rulemaking. But I just wonder how flexible we are in implementing 1.86?

MR. LUX: It's a good point. We had to be flexible. I think there is some flexibility in the modeling that's now being used. RESRAD Build is a model you could use, but there is not enough experience with that.

I think it be very worthwhile to do some additional work and put out some additional guidance on the use of the RESRAD Build

model.

COMMISSIONER McGAFFIGAN: Particularly when naturally occurring. Your cases were not -- well, yours is naturally occurring, right?

MR. HAAS: Yes.

COMMISSIONER McGAFFIGAN: You did run into the same problem?

MR. HAAS: Yes, we did.

COMMISSIONER McGAFFIGAN: I will point out that Dick Meserve as private citizen before he became Chairman, sent us some very wise comments for his clients which may have included Kerr-McGee, I don't know, that suggested we think about having a different criteria with 25 millirem criteria for most things. And he just predicted that it was not going to work for sites contaminated with naturally occurring -- with uranium and thorium and suggested we have a higher of 50 or whatever millirem criteria.

We didn't do that but I think we knew that the radium and thorium sites were going be the hardest because they were fighting nature. And now that we have radium 226 in our regulatory agenda which we hope to work out with the states and use your experience, I hope it works that we can build some flexibility in for these alpha emitters. Do you have anything to add Mr. Haas. Well, I have used up

my time.

CHAIRMAN DIAZ: Mr. Merrifield?

COMMISSIONER MERRIFIELD: Mr. Hudson, I appreciate your coming down from New England to testify. I did want to bring out some of the flavor of some of the other work you have done with the foundation and with regards to the redevelopment of the site, because I think one of the things we have discussed here is that circle in the process as well. And although there have been impediments --

MR. HUDSON: Are you thinking about the Wiscasset Redevelopment Corporation?

COMMISSIONER MERRIFIELD: Well, I'm thinking in part -- I was thinking in part of the work the foundation has done and you are going to have land set aside for open use. But then obviously, there is also the work of the Wiscasset folks for that site as well.

MR. HUDSON: We were asked to participate in a formation of a group of a redevelopment corporation that included the county, the town, an economic development non-profit and Chewonki. And it was that group that secured an earmark to put towards the process of redeveloping the site. And it's through that process particularly in having direct conversations with developers, that I learned about how tender they feel about the site.

It's going be a big hurdle to get over to redevelop these

sites the level that most of us think they are and should be redeveloped. That's where better public education obviously comes into play.

COMMISSION MERRIFIELD: We license the ISFSIs. Beyond the licensing process, we are not ultimately responsible for where that fuel is going to go. And that may be something worthwhile to talk about with the Department of Energy. But we will leave that with you for another day.

COMMISSIONER MERRIFIELD: I think Mr. Haas, I wanted to -- you talked a little bit about continuing to improve our license termination process and our final site survey process, you talked about those bullets very briefly.

Are there any particulars you've got or any further material you might be able to provide us after this meeting to put a little meat onto those bullets?

MR. HAAS: I continue to talk to staff about these issues too. They certainly have made very good process especially in the license termination plan area, to improve that process. It's just when we look at the measures that we have went through to try to minimize or make the whole process easy, and it still ended up taking 24 months. That was frustration. So, there are not any specifics beyond that relative to the license termination plan process.

In general, my sense is that we pay, I believe the same amount on a per hour basis for reviews. And it just seems to take a long time to get some of the simpler license changes through. I don't know if that is a priority issue with the staff or not.

COMMISSIONER MERRIFIELD: Well, if you do have a chance to reflect on this some more, and if you have some specific examples of things that would be useful for the Commission to consider in helping our staff improve this process, I certainly would be interested in a few more details from you in that regard.

I would say, one quick note, you didn't talk about it today. But I do think in terms of innovations on decommissioning the activities that collectively were undertaken for disposal of a lot of the solid waste which ultimately went to a large municipal landfill in Michigan or certainly, one of the noteworthy aspects of the decommissioning activities you've undertaken. Certainly as you engage with your other industry partners in this decommissioning process, further use of that example, I think is noteworthy.

Mr. Lux, I think -- I appreciate the breadth of the recommendations that you gave us today. A lot of times, we have folks come in that sort of give us happy talk about everything's going great and obviously, you've got some issues and you were relatively specific in your remarks about areas on which we can improve.

I guess the one question I would have is, of a lot of the issues you have raised today, is there any prioritization of those in which you think are more significant that we really -- obviously we are a risk-informed agency, we like to focus on that which is going to give us the biggest bang for the buck. From your standpoint, what do you think are the ones we ought to be focusing on first in the list of things we can improve?

MR. LUX: I think NRC has already established some priorities through the IDIP. And some of those are probably among the highest priority aspects that would make the biggest difference.

Flexibility in the interpretation application of regulations and regulatory guidance, I would place very high, as well as what I term performance-based decommissioning where the level of specificity required in the decommissioning plan can be reduced to increase the flexibility in the adapting the decommissioning process to what you encounter as you perform the decommissioning. I would say those are the two highest priorities.

CHAIRMAN MERRIFIELD: Well, Mr. Chairman, my time is up. I would say if any of the members of the panel had further written comments they want to supplement to enhance the discussion today, I certainly would be welcoming of that further information.

CHAIRMAN DIAZ: Commissioner Jaczko.

COMMISSIONER JACZKO: Dr. Hudson, if you could just expand a little bit. You talked a little bit about a particular meeting where one of the members of the committee came forward and asked for information and the president of Maine Yankee at the time provided that information.

Can you talk a little bit about what the nature of that information was? Was that proprietary information that Maine Yankee had or was it regulatory information, if you recall?

MR. HUDSON: It related to, as I recall, it was proprietary information. It related to reports that former staff people at Maine Yankee had made to the NRC. It really was in the ream of information that in this regulatory framework was not readily available to the public. We never heard about it. We never heard about the details of the reports in our committee. They were never reported in the paper. They were between the company and the NRC and the company opened the door to one of its antagonists to share that information. I thought that was an amazing step. It changed the process.

COMMISSIONER McGAFFIGAN: Was it really proprietary?

MR. HUDSON: Not necessarily but it was information that the company was loath to share with anybody but you.

COMMISSIONER JACZKO: Was it financial information

or was it --

MR. HUDSON: No. It had to do with complaints that staff people had made about the company's management of materials, had to do with plant operation and things like that. And I don't know, I never asked to look at the information. I didn't need the information.

I was pleased to know that the company was willing to share what most corporations are not willing to share publicly, their management, the details of their management and particularly, the conflicts that they may have in-house over how they are doing their job.

COMMISSIONER JACZKO: Did you find after that -- was a process set up then to be able to more readily share information so it necessarily didn't come to this kind of situation where you had someone at your meeting specifically ask and they had to provide that it was their a mechanism developed then to make more of that information available?

MR. HUDSON: Well, they gave Ray an office in the building. He literally moved into the building.

And he and Friends of the Coast were given seat at the table that the general public was not -- did not have a seat at.

And I didn't mind because I trusted, number one that Ray was representing a component of the public and therefore, I felt well served or that at least, my neighbors who think like Ray were well

served.

COMMISSIONER McGAFFIGAN: How do we do that? Meetings between NRC and the licensee, that we allow one member of the public in and not everybody else. Is that what you are describing?

MR. HUDSON: Yes.

COMMISSIONER McGAFFIGAN: That does not sound right.

MR. HUDSON: Well, let's put it this way: If I had wanted access to that information, I could get it. One time during the process of decommissioning, when the security issues were raised to a new level in 2001, my Board of Trustees were a little -- their awareness that we were working next to a decommissioning nuclear power plant, was raised.

They asked me to find out what I could find out about security. We never could talk about security in a public setting.

So I called up another Mike, all the presidents at Maine Yankee have been named Mike, and I called up Mike and said, can you talk to me about this. And so we had a meeting off-the-record. And he did not share with me the details of the plans that obviously this agency and the company share, but he gave me a level of assurance and talked about things around the edges in a way that he would not have done at a public meeting.

And thereby, I could go back to my Board of Trustees and say, I have had a detailed briefing at a level that I'm allowed to be briefed. And yeah, that's the way it worked. I'm not sure if the public raises their hand and speaks loudly enough, and the company is open, then those meetings are going to happen.

COMMISSIONER JACZKO: Thank you, appreciate your answer to that. Mr. Haas, I have a question or two for you.

You mentioned in particular and Commissioner Merrifield touched on this a little bit -- you talked about one of the important things was to improve the license termination plan approval process and reduce that from 24 to 12 months.

Is there something you have in mind that saves that 12 months or is that just a goal in terms of what would improve your processing of the decommissioning?

MR. HAAS: I think it's a goal just based on what I saw our side, the site go through to put the package together working with people that were in front of us on the process, working with the staff, and again, going back to that basic of making it as easy as you can removing all the foundations and structures.

When I look at the kinds of reviews that take place on the operating side and compare with that, with a package that was put together for license termination plan, I just didn't see where it should

take quite so long.

It may just a prioritization issue.

COMMISSIONER JACZKO: The final question that I have is, you talked about some of the positives -- operating plan inspections to reduce future decommissioning problems. Can you talk a little more about specifically what you're referring to there?

What are the kinds of things that happening that helped improve?

MR. HAAS: Well, certainly, some time ago when I was still in operating reactors, probably the late 80's, operators stopped using rooms as temporary tanks for holding radioactive fluids for example.

I know that the material conditions that are now inspected to and licensees hold themselves to are significantly higher. That's going to pay significant benefits. One of our participants today talked about the spent fuel pool leak at Indian Point I believe.

That was significant, very rapid follow-up on that. Our history has shown that when you have that kind of event happening, it's going to pay you huge dividends when you get into decommissioning to make sure you tie that up very quickly.

COMMISSIONER JACZKO: Thank you.

CHAIRMAN DIAZ: Excellent point.

Thank you very much Commissioner JACZKO. I think we really had a very effective meeting.

Let me just make a couple of comments because I think it brings through both what the staff was saying and what the excellent panel discussions that we have is that when we are dealing with the decommissioning, we are essentially, except for some particular items and some periods of time, we are dealing with small amounts of radio activity, we really are. And the word "realistic" comes to mind.

We need to be able to realistically assess what needs to be done, what is the schedule, and what is the time.

This is kind of a common message in here. The reality is that we need to provide the regulatory structure. I'm not so sure its flexibility but whatever the right way of doing it to be able to do these things right in a timely manner because I keep getting concerned that we are spending enormous amounts of time on things that really are not even a delta in what I will look at public heath and safety protection.

I think we are concerned with that and the Commission has for years been looking at that. On the other hand, there are issues that keep tying these things together, the ability to make sure that the right information is given to the public, the ability to make the right decisions at the right time.

I really think that when you look at the decommissioning

and decontamination, we are now at a point where we really can go forward.

We know much more to make those decisions that will actually set it in a proper radiological protection infrastructure and allow it to go forward.

I think I challenge the staff to take a look at these things because I think we heard some very good things from the panel and I really appreciate it.

The points of concern with information that we gave to EPA, that is duly noted and we are going to make sure that you know the staff takes on significant care making sure information is factual, that it represents what the Commission has established in this area, interpretation of guidance in different ways.

But we always have a little bit of that but it should be minimized. Those are the kinds of issues that again, when you put it into a realistic radiological protection framework, those are the type of decisions that can be made.

Let me just make a comment on release of solid materials. I think Commissioner McGaffigan and I championed that many, many years ago.

I still believe that that is an issue, that well managed and well done and with the proper approach would certainly provide

benefits to the American public.

We just had too many other things that there were no really major bias out there.

But I do believe that this agency and this country needs to address that issue because if not, we are going to keep going back time and time again to the same issues. If you can put in municipal ways or significant amounts of other components then, the small amounts that we will be dealing with, should be given due consideration, should not -- everybody should be moving forward.

I think I made comments rather than giving you questions because I think you have been thoroughly questioned by my fellow Commissioners. But I do want to say that you made a contribution today. I just want to tell you that each one of you in a very special way brought out an issue and that we are listening and we thank you. And we look forward to working with you.

COMMISSIONER McGAFFIGAN: Mr. Chairman, I point out that the notion of having stakeholders from places like Saxton, whatever, I think we need to give Commissioner Merrifield credit for that.

We started many years -- we would have this briefing and it would just be with the staff. And finally, we said, let's get some stakeholders in with current experience, because they are going to be

able to give us insights and tell us what's working and what isn't.

That part of an SRM a few years back was Commissioner Merrifield's.

CHAIRMAN DIAZ: That is correct.

Now, my fellow Commissioners.

COMMISSIONER MERRIFIELD: I would just say two things. First, Mr. Chairman, I talked a little bit about the issue of dealing with these materials and the clearance rule and I agree with you, I think there was a desire to go forward and we recognized that resources being what they are, we had to put that off.

I would say, however, even under our existing rules and I go back to the folks up at Big Rock Point, I think it does demonstrate that even using the rules that we have in existence today and the exceptions, that there is flexibility that our staff can and should use in order to provide alternative means of disposal and some of these materials that is fully consistent with public health and the environment which clearly I believe, having looked at the Big Rock Point issue, clearly met both of those goals.

The other thing, I agree that the panel had some excellent comments and things for us to think about today. There is an old saying, missing the forest through the trees.

I think our staff has done a better job in times past of

focusing not simply on individual trees but looking at the bigger picture. There are some additional issues that have been put on the table today. Perhaps we may be a little bit more fixated on specific trees and we may need to look at a little bigger picture, more commonsensical way of doing business on individual issues. I certainly would look forward to the staff's review of recommendations provided to us today to give us some further guidance to the Commission.

CHAIRMAN DIAZ: Commissioner JACZKO, do you have any further comments? If not, I want to thank the staff and I want to thank our distinguished panelists. We really appreciate it.

This meeting is adjourned.

(Meeting Concluded)