

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BRIEFING ON DECOMMISSIONING ACTIVITIES AND STATUS

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PUBLIC MEETING

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Nuclear Regulatory Commission

One White Flint North

Rockville, Maryland

Wednesday

October 13, 2004

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

COMMISSIONERS PRESENT:

NILS J. DIAZ, Chairman of the Commission

JEFFREY MERRIFIELD, Member of the Commission

(This transcript produced from electronic caption media and audio and video
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STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

Secretary

General Counsel

DAN GILLEN

JACK STROSNIDER

LUIS REYES

CARL PAPERIELLO

RON BELLAMY

DAVE CULBERSON, NFS and Fuel Cycle Facility Forum

DAVE ALLARD, Pennsylvania Dept. of Environmental Protection

RAY CHERNISKE, Molycorp

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 staff first. This will be, I guess, an NMSS and then joined by Research on the status of the decommissioning program.

After the staff presentation, we will hear from several stakeholders who will discuss their experiences and perspectives from various aspects of the decommissioning.

This meeting as you know, is an annual meeting that is provided to the Commission on the decommissioning programs of the Nuclear Regulatory Commission. Since the last briefing a year ago, the staff has prepared the first of a biannual series of integrated decommissioning status reports.

The draft report is under Commission review and the staff plans to publish it as a final NUREG document by the end of this year.

I think we all realize that the decommissioning program has made many many positive advances during the last several years. In the normal lingo, it's practice made perfect or something like that. It gets better as you get things done.

I think we are getting better at what we do. But as with so many things, once we solve a series of issues, other problems emerge or challenges as the NRC wants to call them. We are particularly interested in hearing from the staff, our stakeholders and any other points of view to

continue improving the decommissioning program. And I will have Commissioner Merrifield who has a deep interest in this area lead us today in the questioning. And besides that...

COMMISSIONER MERRIFIELD: Mr. Chairman, while I have no formal remarks, as you recognize, it has never stopped me in the past. I do have to say as is probably evident to people who have been at more than one of these meetings, this is one of my favorite meetings that we hold each year.

Perhaps it is in part because a significant portion of my professional career before coming to the agency was intricately involved with the issue of decommissioning former sites and putting them back in productive reuse.

Of course, my prior experience as the Chairman well knows was on the hazardous side of the house, not on the nuclear side of the house. But nevertheless, the same process and outcomes are evident between both.

I think we are in an important time period in our decommissioning programs. I think in the six years since I have been a Commissioner, we have made significant progress in our ability to characterize and move forward on cleanups.

I think it is important for us to continue to learn the lessons from those programs. I think it's vital that we consider further efficiencies we can make because at the end of the day, in order to serve the public good which is clearly part of the vision of this agency, we need to enhance

the ability of as quickly as possible, characterizing these sites and moving them forward in a way in which they can be returned to productive reuse for society.

So I very much, Mr. Chairman look forward to hearing the testimony of our staff this morning, and think it's very positive that we will have the opportunity to hear from our stakeholders who have been involved in the many facets of these cleanups as well.

So without further ado, I thank you and I look forward to the testimony of our staff.

CHAIRMAN DIAZ: Thank you, Commissioner Merrifield. Mr. Reyes.

MR. REYES: Good morning, Chairman, Commissioner Merrifield. As you stated, we are here today to provide the Commission with the status of the annual decommissioning program. We provided you a report in the form of a draft NUREG that under your review.

The last meeting we had, the Commission established a two panel format with the NRC staff and stakeholders. We will continue that today. With me on the NRC panel are Jack Strosnider, the Director of the Office of Nuclear Materials, Safety and Safeguards,

Dan Gillen who is the Deputy Director of the Division of Waste Management and Environmental Protection, NMSS. Carl Paperiello who is the Director of the Office of Research. And Ron Bellamy who is the Chief of the Decommissioning Branch in Region I Without further delay, Jack.

MR. STROSNIDER: Thank you Luis. Good morning. I

appreciate the opportunity to be here to talk to you about the agency decommissioning program this morning.

In the briefing today, we want to provide a broad overview of the decommissioning sites and activities.

We begin by discussing the scope and recent evolution of the decommissioning program. We will then discuss the past year's accomplishments and some of the innovative approaches that have been used in achieving those accomplishments.

We will talk about two specific issues that the Commission expressed interest in, West Valley site and the EPA/NRC memorandum of understanding.

We will close with a discussion of the program's future activities, direction and challenges including what issues we plan to bring before the Commission in the coming year. And we will have a period, hopefully, a half hour or so for questions and answers with the staff.

At the conclusion of that presentation, questions and answers, the Commission will receive input on the decommissioning process from three stakeholders, Mr. Dave CULBERSON from Nuclear Fuel Services. Mr. Culberson is also Chairman of the Fuel Cycle Facilities Forum. Mr. Dave Allard from the Pennsylvania Department of Environmental Protection, and Mr. Ray Cherniske, Manager of Remediation from Molycorp, an NRC Licensee. We appreciate their participation in today's briefing.

If I could have the next slide. No, that is the slide I wanted,

leave it there. The thing I wanted to emphasize on this slide is that the decommissioning program is a multi-office team effort.

The offices of Nuclear Material Safety and Safeguards, and Nuclear Reactor Regulation and Research and the Regions provide project management and technical expertise to the program.

And in addition, the program receives significant support on policy issues from the Office of General Counsel and support in interfacing with State and other stakeholders from the Office of State and Tribal Programs.

Next view graph: In terms of scope, we have approximately 300 material licenses that are terminated each year. Most of those terminations are routine and sites require little if any remediation to meet NRC's unrestricted release criteria.

The decommissioning program that we will be describing today will address termination of licenses that are not routine because the sites involve more complex decommissioning activities.

Currently, there are 20 nuclear power reactors, 17 research and test reactors, 43 complex decommissioning materials facilities, 3 fuel cycle facilities, and 14 uranium recovery facilities that are undergoing non-routine decommissioning or are in long term safe storage under NRC jurisdiction.

So with that brief introduction, I will turn the presentation over to Dan Gillen. Dan?

MR. GILLEN: Thank you, Jack. And good morning, Chairman,

Commissioner.

The slide we should be on now would be the catalyst for program change. One way to look at the status of the decommissioning program and its issues is to look at the changes made to the program in the past few years.

The program is no longer just the site decommissioning management plan. There have been several primary catalysts for these changes, reduction of budgeted resources in the decommissioning program combined with concerns over the time taken to work through the decommissioning process have led to improvement of the program's process and more efficient use of resources.

In addition, the NRC's Strategic Plan requires that our programs strive to identify and implement improvements in order to increase our efficiency and effectiveness while maintaining the necessary focus on safety.

The license termination rule itself and more recently, the analysis of several issues associated with implementing the LTR have been significant catalysts for evolution of the decommissioning program's regulatory framework.

And furthermore, the Government Performance Results Act, GPRA, requires federal agencies to schedule, conduct and report on program evaluations in specific areas.

We completed an evaluation of the decommissioning program in FY 03. This self assessment identified lessons learned in other areas for

improvement to the processes and approaches the staff uses in management of the decommissioning program.

Next slide. The scope of the decommissioning program has changed. Previously NMSS managed complex material sites with the focus on just site decommissioning management plan sites while all power reactors were managed in NRR.

In 2003, the Office of Nuclear Reactor Regulation and the Office of Nuclear Materials Safety and Safeguards completed an effort to transfer decommissioning power reactors from NRR to NMSS earlier in the decommissioning process, because it was recognized that after the reactors completed certain safety related activities, they were more like contaminated materials sites than an operating nuclear power plant.

NMSS now manages 15 of the 20 power reactors undergoing decommissioning.

In 2004, the NMSS decommissioning directorate eliminated the SDMP with the Commission's approval and is now managing all complex sites under what we now call our comprehensive decommissioning program.

We define a complex site as one which needs to submit either a decommissioning plan or license termination plan.

In addition, the NMSS decommissioning directorate monitors the decommissioning of all NRC licensed sites through the annual program report and provides technical and policy support for decommissioning or environmental assessments to other offices that need this expertise.

Next slide. The program's framework of regulations and guidance also has evolved. In the 90's, staff used the SDMP action plan criteria which were concentration-based. These criteria were implemented through guidance only and absent an exemption from the Commission, no option other than unrestricted use was available to licensees.

Now, the staff uses the license termination rule which established all pathways dose criteria. It is a risk-informed graded approach that includes both restricted and unrestricted options, and additional options for alternate criteria under certain circumstances.

Until recently, the staff relied on decommissioning financial assurance requirements that were ten years old.

In FY '03, the staff updated the financial assurance regulations to bring them in line with current decommissioning costs, and with the types of sites that need decommissioning funding assurance.

Revision of financial assurance requirements is continuing as I will discuss in a subsequent slide.

In the guidance area, the staff in prior years relied on an unwieldy 80 plus guidance related documents for implementing the decommissioning program.

So in FY '03, the decommissioning staff with Regional and Agreement State assistance, completed a three year effort to update, consolidate and risk-inform all materials decommissioning guidance into NUREG- 1757, NMSS consolidated decommissioning guidance. The staff also updated NUREG-1700, the standard review plan for power reactor license termination plans.

Because licensees and the staff now have a complete set of guidance, a greater consistency of submitted information, a reduction in the number of and types of requests for additional information, an increased consistency of NRC reviews and decisions should result.

Next slide please. In the last couple of years, the decommissioning regulatory process has seen substantial change. The process of the decommissioning plan or license termination plan review begins with an acceptance review.

Previously, we conducted a 30 day quick look at the general information submitted. Generally, multiple rounds of RAI's resulted. Those are requests for additional information.

Now, we have established a longer 90 day acceptance review where we focus on key technical and financial components of the DP or LTP and identify any fatal flaws and either reject substandard submittals or begin a detailed review of acceptable submittals.

This process has helped us achieve our goal of a single set of requests for additional information. Prior to our changes to the process, the reviews themselves were essentially reactive in nature. That is, we waited for the licensee's submittal of a DP or LTP and then developed a request for additional information with limited communication.

Now we have established a more pro-active review of decommissioning documents. This includes holding meetings before the DP or LTP submittals to focus licensees on where we have seen inadequacies in other submittals, and then following up with frequent progress meetings during the review and during subsequent cleanup.

Before addressing the last two bullets on this slide, I would like to move ahead to a graph to explain some effect of our review process changes.

This graph illustrates one effect of our efficiency efforts. The process changes I have just discussed were initiated on this graph after the Connecticut Yankee LTP review.

We have seen a reduction in the time it has taken to review power reactor LTPs from a maximum of 37 months in the past to presently, 12 to 18 months.

Our target for all future LTPs and DPs is a 12 month review or less as shown by the bars for the sites to be submitted this coming fiscal year the Rancho Seco and Fermi bars on the graph.

Now, returning to other process changes. The context of our reviews also has seen change. With the Commission's approval, we have moved towards a more risk-informed approach for dose modeling. Past practice was for the NRC staff that typically default to a conservative scenario such as the resident farmer if dose modeling was used at a site.

Now, we are using more realistic post decommissioning land use scenarios based on 10 to 100 year projections and developed in conjunction with consultations with local planners and stakeholders. We have already implemented this approach at several sites.

We also have stopped doing annual inspection of sites using a standard periodic inspection approach, and are now performing more efficient inspections focused on and aligned with significant

decommissioning activities.

Next slide, please. Now, I would like to address the major accomplishments of the decommissioning program in FY 04. This slide shows accomplishments of the Division of Waste Management and Environmental Protection since similar Regional accomplishments will be highlighted by Ron Bellamy, shortly.

Site specifically, we completed the decommissioning plan acceptance reviews for the S.C. Holdings' site and the Michigan Department of Natural Resources Tobico Marsh site, both in Michigan, for the Pathfinder site in South Dakota, and for the Westinghouse Hematite site in Missouri.

We also completed the Yankee Rowe reactor license termination plan acceptance review. We approved the Fansteel decommissioning plan after extensive review and iteration of the licensee which was in financial reorganization at the time.

Two final status survey reviews and some 20 other significant licensing actions were also completed by DWMEP staff in fiscal year '04. Finally, we completed review of the decommissioning activities at the Molycorp York and the B&W Parks Township sites in Pennsylvania and terminated the licenses for these two former SDMP sites.

While not shown on this slide, headquarters staff is also in the midst of ten other DP or LTP reviews. S.C. Holdings, MDNR, Hematite, Yankee Rowe, Pathfinder, Big Rock Point, Mallinckrodt, Dow, Cabot and the B&W Shallow Land Disposal Area. Next slide.

Here is a quick view of one of the sites terminated this year. This shows the B&W XT Fuel Processing site in Parks Township, Pennsylvania around 1995 before decommissioning.

The DP was approved, decommissioning activities were completed, final status surveys and confirmatory surveys were performed. And on the next slide, it shows the site at the end of this August where we terminated the license and released the site for unrestricted use. Next slide.

COMMISSIONER MERRIFIELD: Just a clarification. Before the next slide, have there been any announcements about possible reuse of this site? Or is that undetermined at this time?

MR. GILLEN: I think it is undetermined. This part of the site has been released for unrestricted use.

There is another adjacent facility that is B&W XT is still in the process of decommissioning through the FUSRAP Program. So I think they have not decided on a total use for that site at this point in time.

FY '04 programmatic accomplishments include elimination of the SDMP designation for sites and now management of those sites and other sites as complex sites under our comprehensive decommissioning program that is consistent with the goals of the SDMP.

The original intent of SDMP and the SDMP Action Plan is to achieve closure on cleanup issues so that cleanup could proceed in a timely manner has been achieved. Management of all complex sites under one program should help to ensure consistency of our reviews.

The staff has continued to implement the LTR analysis recommendations approved by the Commission including using more realistic scenarios, developing recommendations on the use of soil mixing at decommissioning sites, developing approaches to facilitate the use of institutional controls at restricted use sites such as AAR, West Valley and Shialdalloy and initiating a rulemaking to prevent future legacy sites and strengthen our financial assurance requirements. The benefits of this effort should be more effective risk-informed requirements that improve our ability to ensure that the LTR will be met there at all decommissioning sites.

In FY '04, the staff also completed a comprehensive evaluation of the decommissioning program. The staff evaluated overall program effectiveness in meeting the Strategic Plan measures and targets, the NMSS operating plan and the Office of Management and Budget performance assessment rating tool or PART.

The staff concluded that the decommissioning program has been effective in meeting the agency strategic and performance measures, and in terminating sites after completion of decommissioning, but identified several areas in which the program should focus to achieve further efficiency and effectiveness.

The staff has continued to interact with international organizations and governments.

This past year, we have contributed to IAEA's development of decommissioning standards, participated in the Nuclear Energy Agency's workshops and seminars. We participated in bilateral and trilateral

exchanges with other countries.

We have hosted foreign assignees in decommissioning and developed and provided decommissioning and training workshops for requesting countries. NRC is generally recognized in the international nuclear community as an experienced leader in the decommissioning of nuclear sites.

NRC staff interacts with international organizations and governments, has provided less experienced organizations with insights into decommissioning approaches that are successful, safe and cost-effective. It also has facilitated NRC staff input into the various international guidance that NRC and NRC licensees will need to consider as they interact in the global environment. Next slide.

During the past year, the staff has been creative and flexible in its approach to review of decommissioning plans.

The review of the Kiski Valley Water Pollution Control Authority site in Pennsylvania is an example.

The staff elected to perform its own dose assessment at this non-licensed well characterized site and using bounding in place and landfill scenarios.

This resulted in a recommendation to the Commission of no further decommissioning action. The staff published in the Federal Register, a draft environmental assessment and finding of no significant impact, and is waiting closure of the comment period and hopes to terminate its activities at this site this fall.

Fansteel proposed an industrial land use scenario for its dose calculation. The staff reviewed the proposal, evaluated land use development in the area and agreed with Fansteel's assessment.

The state of Oklahoma challenged that position. But after reviewing the issues and arguments, the Atomic Safety and Licensing Board Panel upheld the staff's position that the industrial scenario is a reasonable foreseeable land use. Fansteel is also a licensee that has reorganized after bankruptcy.

The site has elected, with the staff's approval, to approach site cleanup in phases with a focus on the most contaminated areas first.

Based on the Commission's approval of the options and implementation actions in the license termination rule analysis, and on Shieldalloy's interest in using the long term control license options for restrictive release, the staff developed interim guidance for use of this option.

The interim guidance provided to Shieldalloy includes key concepts about the use of a long term control license and recommendations on how a decommissioning plan of this type should address institutional controls, engineering barriers, maintenance and financial assurance.

And lastly, at the Jefferson Proving Ground in Indiana, the staff and licensee are exploring the use of a possession only license with a five year renewal period to relieve the licensee of the need to be decommissioning this site in the near term because of the presence at the

site of unexploded ordinance.

The next slide -- I'm not sure there is a slide but I'm turning it over at this point for brief discussion of Research contributions by Dr. Paperiello.

MR. PAPERIELLO: Thank you. Research supports NMSS in the decommissioning arena. Both offices are closely coupled and about almost all the work is use or need. In fact, a good deal of it is jointly managed.

The goals to ensure safety, get more realism and to the extent possible, eliminate much of the bounding analysis which has in the past been characteristic in this area. Strong collaborative effort with other federal agencies to get common methodologies used by all federal agencies.

You may recall a number of years ago, the first product we produced in this collaborative effort was MARSSIM and we received a Hammer award. Our collaborators included EPA, DOE, Corps of Engineers, Department of Agriculture, NASA and the U.S. Geological Service. The work is readily available on the web and is used.

There is a whole industry built around the research work products that have been developed and industry uses these products for doing decommissioning.

There is a human capital aspect. Not only have we trained the NRC staff to use these tools, but I know they are being used in the schools because I find papers on them at professional meetings. They are

actually being used by students who will go into this area.

And although this research fits under decommissioning, the fact of the matter is, it cuts across the number of arenas in the NRC.

For example, the models --isotopes don't know how they got in the environment. So the models can be used to analyze the consequence of malevolent events. The concrete barrier work that fits in here is also used to analyze, look at reactor containment degradation.

Some of the perimeters are used in the high level waste program along with the reactor transport model which I hope will help there. And I have just recently began conversations with NRR where it was clear to me in getting ready for this meeting that we have a lot of the data that could be used to update Regulatory Guide 1.109 on show and compliance with Appendix I to Part 50 which was last revised in October of 1977. Much of this data can cut across.

So I think you have to realize this information is being used not just in decommissioning but across the agency.

Just a last remark: We have some interesting collaborators. On ground water recharge we have NASA and the Department of Agriculture. Our interest is radionuclide transport. Agriculture is interested in -- and NASA are interested in ground water recharge for the sake of providing ground water.

So in some of our collaborations, the agencies that we are collaborating with have different interests than we have. So this research is just widely used and I think it's been doing a good job.

Thank you.

CHAIRMAN DIAZ: Thank you.

MR. BELLAMY: In our inspection and project management roles and as support to the program offices, the Regions have helped to ensure significant progress for cleanup at decommissioning sites nationwide.

Major demolition and shipments have been inspected at permanently shut down reactors.

Big Rock Point and Haddam Neck removed and shipped their reactor vessels during the last year. Yankee Rowe and Maine Yankee have demolished most buildings. And, in fact, Maine Yankee has demolished all buildings inside the protected area, including the containment structure, just last month.

Plants including Yankee Rowe and Maine Yankee have completed moving all of their spent fuel to dry storage and on-site independent spent fuel storage installations. And other plants continue to move fuel to ISFSIs or construct these facilities.

The recent support of public outreach continues to be a success. Licensees have voluntarily set up citizens advisory panels composed of local members of the public, State and local officials, town planners and emergency planning officials. They are typically chaired by State senators or other local officials.

The Regions support these meetings by periodic attendance, pro-actively presenting inspection findings, the status of licensing actions

and future agency plans and immediately responding to questions.

This immediate feedback and staff ability have resulted in improved public image for the agency and excellent relationships with the panel members, the public, local and State officials and the media.

We have scheduled and held effective informational meetings in local areas of plants as further outreach efforts. These have included Indian Point, Diablo Canyon and San Onofre, and Yankee Rowe to discuss their license termination plan.

Overall, these public outreach activities have been quite successful. And as a resources permit, we will continue these effective public outreach activities.

The slide shows some of the tabulated regional accomplishments.

We consult with and rely on the program offices for daily technical support and guidance as we work on these projects.

Acceptance reviews of decommissioning plans were completed for four sites including Englehart Industries in Illinois and Whittiker in Pennsylvania.

Final status survey reports were reviewed for nine sites, including Alliant Ordinance and Ground Systems in Minnesota, Walter Reed Army Medical Center here in D.C., and Herrage Minerals in New Jersey.

In addition, a significant number of inspections were performed and documented and 30 licensing actions issued.

Finally two of the sites were terminated by the Regions, University of Wyoming and Envirotech Labs.

We in the Regions expect to continue to show significant progress in site remediation oversight and work with the program offices and other stakeholders as we move forward.

Major challenges include inspections and support of license termination plans and continue to progress on the Safetylight cleanup with the EPA since the site is proposed to be added to the national priority's list. I now turn the presentation back to Mr. Gillen.

MR. GILLEN: Thanks, Ron.

Before I discuss future activities, I will address two items of specific Commission interest, the West Valley site and the EPA/NRC Memorandum of Understanding.

For West Valley, the NRC set the decommissioning criteria via Commission policy statement in 2002. The Department of Energy and the New York State Energy Research and Development Authority need to move forward on the environmental impact statement and decommissioning plan, although their different interests continue to impact schedules.

The current schedule has agency review of the draft EIS in April 2006, public release of the draft EIS in December 2006, and issuance of the final EIS in October, 2007. The decommissioning plan would be submitted concurrently with the draft EIS.

A meeting with all the involved agencies was just held on

September 30th. At the meeting the New York agency's proposed and expedited schedule, which could lead to EIS and DP submittal in mid-to late 2005. Also, EPA proposed a modified ESI DP alternative for agency consideration which would feature two sub-options, a high level waste tank removal option and an in-place high level waste tank closure option. The staff will be seeking Commission guidance on this proposal in the near future.

Additionally, at the meeting DOE indicated it will set up workshops in the next few months to discuss the issues and alternatives and DOE sought support for continuing facility dismantlement and shipment of waste off-site outside the scope of the decommissioning EIS.

Next slide, please.

In implementing the EPA/NRC Memorandum of Understanding, the staff, with Commission approval, has set the consultation criteria.

There are three forms of interaction with EPA for sites where radionuclides would exceed the MOU trigger values. A level one letter of consultation at the DP/LTP approval stage, a notification letter for those sites that already had an approved DP or LTP when the consultation process was initiated, and a level two consultation if sites still have residual radioactivity greater than the MOU values and issues remain at the completion of decommissioning.

The staff originally identified 13 sites with the approved cleanup levels that triggered the MOU. One more site was added to this list

during implementation over the last year. The last three -- the first three notification letters were sent to EPA and responses were received. Five more notification letters will be issued this month.

Three sites have completed final status survey reports and have shown that their levels no longer trigger the MOU. We recently informed the Commission that we will not be notifying EPA for those sites; take them off the list.

We are revising our guidance for project managers to address the MOU implementation. And for stakeholder communication, the MOU itself, the consultation letters are linked to EPA and MOU Q's and A's will be on the NRC website.

Updates are being provided to Organization of Agreement States including a presentation of the recent OAS meeting in Region I.

Site-specific consultation will continue as necessary, including two sites for which their complexity will require Commission consultation.

Next slide, please.

I see I'm already into the yellow light here. I'm the first guinea pig of going over.

MR. REYES: You can take the time that Commissioner Merrifield asked questions.

(Laughter.)

MR. GILLEN: Perhaps I can borrow five minutes of the questioning period to get through my slides.

COMMISSIONER MERRIFIELD: No.

(Laughter.)

MR. GILLEN: All right. So where are we on the horizon for this program. The staff plans on conducting many activities in 2005 for implementing the LTR. We will be developing a technical basis and early draft for the proposed rule on draft guidance on measures to prevent future legacy sites. We will also be developing draft guidance for public comment for institutional controls that restrict the release sites for realistic exposure scenarios for on-site disposal and for mixing of soil.

Follow-up actions to the decommissioning program evaluation also are planned for FY 05. Examples of these include making decommissioning website enhancements, holding training on NUREG-1757, finalizing and implementing the site prioritization process for assigning resources, considering options for sharing decommissioning approaches and lessons learned.

The LTR analysis and program evaluation implementation activities have been combined and are outlined in an integrated decommissioning program improvement plan.

We will be also implementing a communication strategy that includes a decommissioning site database, web page enhancements, a new decommissioning program brochure and the biannual decommissioning program report. The staff will be working with other NMSS offices to prepare for the PART evaluation that is scheduled in '06.

Trying to speed things up and get through my last two slides.

Our challenges. The decommissioning program will continue

to face several challenges in the coming years. Difficult sites will remain, including Safetylight and Fansteel, that pose unique challenges with respect to licensee to fund the decommissioning of the site, including West Valley, that will continue to require effort as we carry out our responsibilities on the West Valley Demonstration Project Act, and including the non-licensed sites that present a challenge to complete the cleanup of residual radioactive material.

We will be seeking Commission guidance in the coming months on issues that will challenge us such as implementing our restricted use institutional control modifications, dealing with financially troubled sites, implementing the policy for soil mixing and establishing appropriate financial assurance for decommissioning reactors -- financial insurance.

It also will be a challenge to deal effectively in multiple regulator situations with EPA and the States.

Finally, as we discussed during our budget development, estimating our resources in the out years will be particularly challenging. Determining when a licensee will decide to terminate operations and whether their historical assessments and characterization will necessitate a decommissioning plan is a difficult task. Developing an early warning system for adding complex sites to our list will be a challenge.

The staff is striving to develop a better way to estimate our resources, but the need to include contingency factors and estimates likely will remain.

Last slide, please.

In summary, I presented the status of the decommissioning program through its changes, its accomplishments and its future activities. The program has matured from one that focused on just a number of problematic sites using limited guidance, to one with clear regulations and guidance addressing all complex decommissioning sites.

Internationally, we are seen as leaders in the field and are routinely called upon to provide insights and guidance to other countries. We have performed several evaluations of the program and have identified those areas where additional improvements and more efficient approaches can be made.

We continue to resolve policy and technical issues at complex sites to strive for greater flexibility while ensuring public health and safety, and develop better ways to communicate the program to our stakeholders.

As we proceed towards our goal of safely decommissioning NRC-licensed sites, we will continue to look for ways to improve our program's efficiency and effectiveness. Thank you.

CHAIRMAN DIAZ: Thank you very much, Mr. Gillen. I think you have been -- or the staff done a great job in doing this presentation.

The red light, you received the benefit of being the first. Annette told me she has two more phases, one is the electric shock.

(Laughter)

CHAIRMAN DIAZ: And finally, she has a decommissioning plan. And I understand that it's really full termination.

(Laughter)

MR. GILLEN: Thank you, Annette, for not shocking me.

CHAIRMAN DIAZ: And she has been given broad powers to exercise her authority in this regard.

I think I'll let Commissioner Merrifield take it from here.

COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman. I want to first thank the staff for what was a broad but I think very instructive briefing this morning demonstrating the wide variety of issues that we are grappling with right now. So I think that was very good.

I guess the first question I have would be directed toward what was the staff's slide number 8. If we can bring that back up on the screen, it would be helpful.

The slide, is not quite on the screen yet, but basically it outlines eight different sites for which we are in the license termination approval process. There is one site which also has active decommissioning underway which is not listed, and that's San Onofre, Unit One.

I have had the opportunity to go out, and with the exception of the Saxton site, I have actually had the opportunity to go out and visit all of the sites.

I think one of the things that comes out of those visits and the level of work that we have accomplished over the last few years and the work accomplished by our licensees is a recognition in my mind that we need to make sure we take this opportunity to really get our hands around some lessons learned.

With a total of nine sites under active decommissioning, and with a licensed renewal process in the active operational reactors, it is likely that we will not have this level of decommissioning activities, at least for power reactors, for potentially a long period of time to come.

In the discussions I have had with licensees, I think it's vitally important that they take an opportunity to use the lessons learned to combine the efforts of the various reactors under decommissioning to capture that for reactors that would go into decommissioning in the future.

On the same hand, I think there is a great utility in our agency using the opportunity of taking what is I think a historic element in our program to capture the lessons from our standpoint so that a future Commission, when placed in a position of having to deal with this many or more reactors under decommissioning, can learn from that and move forward with even better efficiencies.

So I think the question that flows out of this is what are we doing right now to take advantage of lessons learned in these decommissioning sites, and to what extent are we coordinating that lessons learned effort with NEI and the individual members who are deactivating and decommissioning their reactors.

MR. GILLEN: Thank you for that observation. That is something that we also have been dealing with.

The San Onofre site was not shown on this barograph because they have not submitted an LTP to us yet. They have just recently decided -- they have been doing some activity, as you observed, under

their operating license and have yet to sit down with us and plan out when they are going to submit the license termination plan to us.

I suppose I could have put them down as another future one along with Rancho Seco and Fermi and with our goal of a 12-month review. But the question of lessons learned. We have thought about that in terms of what lessons can be learned from the next wave of sites of reactors that will go into decommissioning. And we're starting to bring that to the attention of the industry that they should be working with us on those lessons learned.

I recently gave presentations at both the EPRI workshop up at the Connecticut Yankee site as well as a TLG decommissioning conference. And in both of those presentations, both John Greeves and I brought this issue up, that they need to be thinking about it. They need to be talking to us about what lessons they have learned.

And not just for reactors of the next wave, but also for future reactors that may be built, to be thinking during construction of the reactors, how can I improve future decommissioning problems that may be there. So, yes, we are working with them and will continue to do so.

COMMISSIONER MERRIFIELD: Well, I think it would be helpful, maybe it would be something that we talk about when we meet again next year. But I think in a very disciplined way, we need to think about trying to capture some of those lessons and in concert with the utilities, so that we can take advantage of that in the future.

I think you make a very good point about future reactor

designs. It's better to build some of those issues in when the plant is being designed and built.

But certainly, for the wave of currently operating reactors that will some day be decommissioning, I think we owe it to ourselves and to the public to make sure that we have our best information available so we need not relearn those lessons for future regulators down the road.

MR. GILLEN: Early on ground water characterization is one thing that we have talked to the licensees about, don't wait until the end to start looking to see whether or not you might have some ground water contamination.

COMMISSIONER MERRIFIELD: Okay. One of the things that was not included on your briefing, although we have made parts of it public -- and there's a draft NUREG that's currently before the Commission, as the staff well know and perhaps the public doesn't -- and I know Carl knows this well, this is a document that I have personally taken some interest in over the course of the last few years.

I think it is very important for us as an agency to get our hands around the decommissioning sites that we oversee. And I think some of the earlier documents were not as clear as this one is. I think we have made a lot of progress in having a clear and consistent format. And I think it does engender a greater degree of knowledge for ourselves and for the public the scope of the decommissioning activities that we have underway.

So I want to complement the staff for making a lot of

improvements on that.

I think the plan is to try to publish this NUREG once every two years with having a Commission paper, reduced Commission paper to the Commission in the off years, which I think is a common sense way of dealing with it.

There is some discussion about maintaining a website with more up-to-date information and perhaps having a brochure that describes our decommissioning process in greater detail. Something that will be useful for the public that needs to be concerned about the sites and their communities.

Can you perhaps flush out a little bit more what the staff's plans are to enhance our communication in this important area?

MR. GILLEN: Yes. I think in my rush to get to the end and not be electrocuted, I kind of went through my communication strategy very quickly.

But we kind of have a plan to focus different pieces on different stakeholders. The annual report that you spoke of that you now have in front of you as a NUREG is a very detailed document. It goes into one, two-page summaries of every site that we have in decommissioning. It has lots of detail on the kind of accomplishments and things that have gone on this year and the kind of things we are going to be doing in the future. And it has a lot of tables of data related to the various sites.

That's something that someone can use maybe if they want to read a little bit of information about one of their sites. But mostly it will be

information for somebody that's really into the program.

Our web page, we intend to --

COMMISSIONER MERRIFIELD: You can count me as the latter part of those two groupings and the reason why I spent so much time badgering you guys to improve the document. But I do fall into that group.

MR. GILLEN: And the improvements to the web page, that, I think, is mostly focused on someone who says I have a decommissioning site in my town near where I live. I want to go on the web site and be able to find an easy access to some information on that site.

So we are looking to have a map where they can click on a state to see where they have got, to have an easy way to find your way to particular documents related to a particular site, as well as the site summaries.

I spoke of the brochure. The brochure is something that we think would be useful for to us carry to public meetings as part of our communication. Not only do we have communication plans for each one of these sites, but we also have requirements that we go out at the beginning of our license termination plan or decommissioning plan review and have a public meeting, continue to have those as necessary during the process. And those will be useful to hand out to people, to give them an overview of what is involved in the decommissioning process, what the criteria are, that type of thing. So a multi-tiered approach.

COMMISSIONER MERRIFIELD: I think that is positive. One of the observations that I have made in the past and I will make it again

today. Is that one of the spoken, and in some cases, unspoken promises made particularly when these reactors were being built, was the recognition at the end of the day when those reactors no longer had a useful life, that they would be decommissioned in a way that would provide for the land to be reused.

It was a promise to the local community that we are bringing this technology to your area, we are going to manage it during the time it is here. And when we are done, we are going to resolve it and put it back in a way which can be still useful for the community.

I think what is important in the progress that we have made over the more recent years is that promise and our part in that as a regulatory authority overseeing that cleanup is that that promise is being fulfilled. That as regulators when we said we are going to hold herd in terms of making sure these sites are getting cleaned up, we are seeing some progress there. And I think that is a positive thing we certainly need to certainly recognize.

The third question I have. I had an opportunity earlier this summer to go up to Big Rock Point, which is very actively engaged in decommissioning that facility. Very long ride to a lovely part of upstate Michigan.

One of the things I think is most noteworthy in the Big Rock Point decommissioning activities is what I think is a rather innovative use of RCRA Subtitle D Landfill for the use of very slightly contaminated material to be disposed of. Thus avoiding large amounts of concrete being shipped

to a far distance site.

What I think was particularly innovative about that particular agreement was the inclusion of many discussions with local communities, not only the community around Big Rock Point, but the community around the large Michigan landfill which is the host of the final repository of that disposal material. And the agreement on the part of the licensee to purchase radiation monitoring equipment both for use at Big Rock Point as well as the entry point at the landfill and even the willingness to pay for an independent consultant to be used by the host community to monitor the activities of the reactor and make sure that the materials are being disposed of in an appropriate way.

I think that is a real model for having an opportunity for further creativity in the appropriate disposal and resolution of these materials.

Are there efforts underway or thoughts by other entities to try to use that type of disposal activity or have we -- do we have some sense of where that is at this point?

MR. GILLEN: Yes. I am thinking which sites might have that. It certainly has been made known to all our licensees that that option exists. I mean, even with the Kiski site, I mentioned that one of the options we analyzed was the State of Pennsylvania may wish to -- and maybe Mr. Allard will be speaking to that -- but may wish to move that site, even though our dose assessment showed that leaving that material in place at that site meets the 25 milligram.

We analyzed an option for taking that material, picking it up

and taking it to a landfill which may be able to accept the low values of radiation in that material. So that is an option.

There are other sites, yes, that I know as they go to greenfield that are looking for -- and maybe Mr. Culberson will be speaking of the need for sites to be looking at options for disposal to -- as costs rise in decommissioning. Certainly, I think they are all focused on when they can take a site to a non-evirocare type situation.

COMMISSIONER MERRIFIELD: Two final quick questions. I think one of the things which is helpful with our moving forward, the detail contained within this NUREG is a recognition that we have a new better handle and understanding of the scope of sites under our authority. I think that that document does demonstrate that. That was one of the reasons why I had urged the staff to seek that level of detail.

One of the things that I think is in concert with that notion is the issue of financial information we have available about sites which may not have the financial wherewithal to clean up those sites to a final resolution.

Is that a fair reading that we have a better understanding now than we did before and if there are gaps, where do you think those gaps may be?

MR. GILLEN: Yes, I think we do have in each one of the site summaries some discussion of the financial costs where we had the information available. Some, it's -- I mean, as sites go through their process, the original cost may not be the same as what is left to be done, so it's trying to pin down the amount. Some sites are non-licensees that

are listed in there and it's difficult to get information from them, as it is difficult to get them to even move forward on decommissioning, to get the costs involved.

So where we have the information, we have included it. We have, of course, our companion Commission paper that comes at the end of the year related to sites that are in financial difficulty. That should be coming to you very soon. And for those sites, we definitely have tried to pin down the costs to compare it to the existing financial assurances.

COMMISSIONER MERRIFIELD: That brings me to my final question and hopefully, we can be brief on this.

Given that, it would seem to me that we have an understanding or an increasingly greater understanding that there are some sites for which we simply do not have the economic wherewithal on our own, we have no funds of our own to clean up those sites. And that the licensees involved with those sites also do not have the wherewithal to take those to their ultimate reuse cleanup and reuse situation.

When do you think we might be at a point where we would have a group of sites for which we recognize, we don't have the money, they don't have the money and we are going to have to go to Congress to see how those sites may be resolved?

MR. GILLEN: Well, so far, we have been able to find creative solutions for the ones that are at the top of the list. Fansteel is one that I mentioned in here, is one site that just went bankrupt, reorganized, they now have a separate company and there is a plan for how money will be

distributed from the original company to the new created company. There is some money in their decommissioning fund.

So we are going to focus -- maybe a more drawn out period of phased decommissioning using that money and getting a site decommissioned.

There is the Safetylight site which, of course, is recognized as being the site in financial difficulty and one which we are in the process now of looking at renewal of their license.

That site has just recently been put forward to be on the EPA's listing and NPR. And I see that those type of situations, to work with the EPA, the Corps of Engineers FUSRAP program and to work with creative solutions with money that is available, we may not have to go to Congress.

COMMISSIONER MERRIFIELD: Okay. Well, I suspect -- and I want to thank the staff for creatively using the tools available to it to continue moving the cleanup process forward.

I suspect at the end of the day, there will be some grouping of sites, hopefully small, where, as a result of the cards played us, we will not have the ability to get those moving forward and we may need to seek some redress to do that.

You mentioned the FUSRAP program. I noticed that is a program that's funded around \$150 million a year, far more than we have, the zero that we have to funds some cleanups. And there may be some ways we can approach Congress about something along those lines.

But I think we do need to be thinking in terms of moving this information forward to mature it to a point where we would have that site or those sites in hand and can present a cogent list to Congress with some recommendations as to how to resolve the finality of these sites and move them forward into reuse.

Thank you, Mr. Chairman.

CHAIRMAN DIAZ: Thank you, Commissioner Merrifield. I'm always happy when one of my fellow Commissioners has done most of the work that I needed to do. It is greatly appreciated.

Let me go back at some of the -- let me go at the 5,000 foot level in here for a minute.

First, I want to thank the staff for really increasing what I have called a realism on not only their estimations but in the implementation of the work. And I think sometimes we don't realize that people that might be watching doesn't really know what we mean.

What we mean by realism is that we are not going to pile unnecessary conservatism or unnecessary conservatism because the end product is no longer recognizable as something that we can say this is protective of public health and safety. And I think the efforts that are being done across the agency in this regard are very noteworthy, and I am happy to see that you're using them, happy to see that Carl is taking that to task and is also cross correlating results from different areas. That is certainly a very worthwhile issue.

I think we need to talk about realism and conservatism

because most of the things we do are highly conservative. But we also want to bring them into the actual world and make them be realistic while we maintain margins of conservatism that will protect the people of this country.

Looking at the packages, I would like to emphasize that there are four additional themes besides the issue of realism that I think are important. These are things that we will continue, I think, to work on.

Those are the issue that everybody agrees that there has to be some improvements on radiological monitoring, whether it is applied to initial site characterizations or to final surveys. That is something that permeates -- it is an area that we have done well but need to continue to improve and this is an area that crosses across all things.

I think another area that I think comes through this package is the issue of the finality of decommissioning and whether that is really a concern that we need to address further. It's either to EPA or whether we need to do something more or whether we have additional consultations to be made.

But the people of this country deserve finality on these decisions. The licensees that have put the resources, their money deserve finality. And I think even the NRC deserves finality on the issue. So that's the second theme that I saw in your packages.

The third one was the fact that we still have limited disposal options for decommissioning site waste material. That still is an issue that this country needs to face because we don't want to burden the taxpayers if

the site does not have resources, we don't really -- beyond what is necessary.

So I think continuous work on establishing what other options are for this disposal of site waste materials continues to be an issue that warrants consideration.

And, of course, the last one but not least is the fact that we still have some inconsistencies among the regulators that are out there. And convergence on this issue becomes important to the nation.

So we need to keep pushing on the area of establishing a better consistent framework between the different agencies and even sometimes between the NRC regarding the license termination rule needs to be achieved.

I just wanted to lay those things out because I think they are themes that permeate what the staff has presented and they need to be really revisited and upgraded and continue and made better. And if there are any issues on these that you believe the Commission should intervene, whether there are interfaces issues with other agencies, we really want to be brought early into the game.

A couple of questions now that have been being set off and that is on the issues that we always talk about is the MOU with EPA. And you have sent those notices back. What is the feedback? Do we have a reasonable amount of feedback from EPA or are the things reasonably set so when we said this site is no longer approaching the MOU limits, is that process okay? Or are we still having some problems?

MR. GILLEN: I think we are okay for those sites. Like I mentioned, there were three sites to get to the end, we stopped our communication with EPA because they no longer triggered the values in the MOU.

The sites that we have sent letters on that are still in process -- for all three letters we have sent to EPA, we got letters of response back from EPA in which they continue to raise issues basically. They didn't come back and say, oh, everything is okay now. They pointed out where they still have issues.

We didn't want to get into a letter exchange back and forth type process at this time. We just said thanks for your letter. And, of course, as we get to the end, it will either come off the list because it's less in the trigger values or there will still be an issue. And we will have to sit down at the table with EPA at that point in time and discuss it. And that's what the second level of communication is with them on this.

CHAIRMAN DIAZ: But it is not impacting your time lines or your implementations as you go through this process?

MR. GILLEN: No.

CHAIRMAN DIAZ: Now, let go to the another interface in here. When we talk about implementation of the license termination rule, what kind of issues or challenges exist when you look at the States and the NRC? Are we having any issues of consistency between implementation of the license termination rule with the States?

MR. GILLEN: I think in reading Dave Allard's slides I

recognize that he had raised an issue there about consistency. You will hear that shortly.

We recognize that that's a concern. We in the NRC having multiple groups implementing and project managing, particularly the Regions, the three Regions that have sites as well as ours, there could be a tendency for inconsistencies unless we keep communication lines open.

And right now we have issued the consolidated guidance, which in itself should be a means of ensuring that all the project managers have the same guidance, they are working from the same tools and also, as I mentioned part of our program evaluation, we decided, well, we should get out there and do training so that we go to the Regions and we all sit down, all the project managers involved, and hear the same, this is how this should be implemented, this is how we should be doing this in accordance with the consolidated guidance.

Working with the States, I think there is a good story to be told. We have good interaction. We have meetings with State agencies at all times. States are out at all our sites alongside us looking at our confirmatory surveys, doing surveys themselves. At the sites in Pennsylvania, we have quarterly phone calls with the State of Pennsylvania to go over every site in their state that we have and the status. We continue to work with them closely on sites. Most sites we are pretty much in agreement.

You may hear from Dave a couple of sites where we are not necessarily totally in line but we are working together on those and

discussing the issues.

CHAIRMAN DIAZ: I am sure you realize that this is a very important issue to the Commission and I would like to support that issue. We need to address those concerns.

It does not mean we need to agree with somebody but we need to address them seriously. And again, differences between Regions' interpretations of the guidance are issues that also need to be resolved.

Do we have any difference between our Agreement States and Non-agreement States regarding dealing with license termination? Is there any difference, anything that comes to mind?

MR. GILLEN: I think there are some States that have more strict criteria than we have in our 25 milligram, particularly -- it's either Maine Yankee or Connecticut Yankee, one of those -- Maine Yankee has a stricter criteria that they worked independently with the licensee and the licensee is cleaning up to that criteria.

MR. BELLAMY: Mr. Chairman, if I could add to that. What has happened there is that the licensee has developed their license termination plan to satisfy the more stringent State criteria. So we really inspect to our criteria. But at the same time, they are satisfying the State criteria. So it has worked well. I would have to agree with Mr. Gillen.

CHAIRMAN DIAZ: Thank you very much. I appreciate the staff briefing. I thought it was very good and you're now excused.

We will now turn the lights on again, Madam Secretary.

Good morning. I want to welcome our briefers this morning,

Mr. Culberson, Mr. Allard, Mr. Cherniske. We appreciate you taking the time to come and brief us on this important matter. We really appreciate the input we received from you.

And with that, I think you know you have ten minutes each.

And she's going to hold on the voltage.

Who is starting?

MR. CULBERSON: I'm so thankful that Dan set the precedent with the red light. If I could get through the shock effect, that decommissioning option looks very attractive. I'll take that.

Mr. Chairman and Commissioner Merrifield, I want to thank you for the opportunity to participate in this briefing today, to share an industry perspective on behalf of the Fuel Cycle Facilities Forum of which I am Chair. I also want to give a special thanks to the staff for their work with us. They've been very supportive, very willing to get engaged, involved and have been very responsive to the requests and needs of the Fuel Cycle Facilities Forum. And that has been a major contributing factor, I think, to our success over the years.

We are very pleased as an organization to be involved in the NRC's decommissioning regulatory process in a way that we believe is meaningful to the process.

First slide, please.

What I would like to do is provide a brief overview of the Fuel Cycle Facilities Forum for you today, highlight a few of our recent accomplishments and then identify eight specific decommissioning issues

that are on the table that we have been discussing for some time that you may choose to discuss in a little more detail.

Next slide, please.

What is Fuel Cycle Facilities Forum? This is an informal forum organization that was assembled several years ago to address technical and regulatory issues in the decommissioning arena. Over the period of time we have been in existence, we have maintained a focus on decommissioning issues exclusively which has enabled us to be very productive in that regard.

The organization is comprised of source material licensees and special nuclear material licensees.

We were established in the 1988 time frame and have continued to meet two or three times a year.

And the sites that are represented, the licensees represented in this organization are of a size and complexity in decommissioning that they generally warrant special NRC consideration in part because they came, most of them contained naturally occurring radionuclides. Ones that are difficult to measure and hard to distinguish from the background.

Many of these sites are addressing just partial releases or partial remediations which present a different set of challenges than if it were decommissioning for license termination. And these are typically, those few difficult sites, that are frequently addressed in the decommissioning process that are most difficult to decommission.

This particular Fuel Cycle Facilities Forum provides a forum

for this group to come together to share their experiences in decommissioning, their lessons learned, their successes. We discuss the complex issues that we each face and the agency faces. We interact regularly with the NRC staff on all these complex issues, and it provides an avenue for the industry to submit comments and position papers on the decommissioning subjects.

We serve, we believe, as a resource to the agency. We frequently get questions from the staff and involvement in the public workshops and public meetings and particularly in the area of implementation of many of the guidelines and criteria that are out there.

We test some of these complex issues through something that we use a lot, and that's tabletop exercises, where we actually go through mock exercises using actual data and actual guidance documents to test the implementability. And we believe we have been very successful in accomplishing all the goals that we established several years ago. The group continues to thrive.

Next slide, please.

I would like to highlight just a few, as examples, of our accomplishments. The one that is probably most important to me personally is that I believe we have established an excellent working relationship with the NRC staff on decommissioning issues.

This forum provides an excellent mechanism and a conduit, if you will, for information to flow back and forth on a very candid, open basis which has been very useful to the licensees and I hope for the agency.

We continue to get consistent and strong support by the staff which is an encouragement to us. There is very candid, very open and constructive dialogue at all of our meetings. And we try to have at least a half day with NRC at most of our meetings. We have tabletop exercises. We have workshops that get down to real issues. And all of those have been very successful.

And as I said, we've seen NRC request for feedback from this particular group on issues pertaining to decommissioning. And it allows the agency and the regulated community to interact on a number of these really important issues.

Next slide. I guess not next slide yet.

One of the other accomplishments I would like to highlight are some recent white papers that the Fuel Cycle Facilities Forum has produced. The first in regard to a phased approach to decommissioning.

In the February 2001 time frame, we had a meeting here in Washington with the industry and NRC where we actually hosted a tabletop exercise using an actual site as a model. A licensee had volunteered to use their actual site data, their actual schedule and their actual financial situation.

We talked through some of the issues that frequently delay timely decommissioning. We were trying to understand better what those are and why those are issues and what could be done about those.

We discussed what NRC's expectations are, what the regulatory process expects and also from the licensee's standpoint, what

the interpretations and understandings are to try to come together on some of these issues that frequently delay the timely decommissioning.

Some of the difficulties that we discussed jointly are the lengthy times of inactivity that occur during that process where we are waiting for submittals, waiting for approvals, the issues of staff retention during some periods of time that can be two to three years in duration where you risk losing important licensee history and knowledge, some the uncertainties that exist at a site at the time the process starts and the lack of being able to fully understand from a characterization standpoint what is the actual condition at the time the site will be released.

A lot of that cannot be discovered until you get into the process and take away some of the interferences, equipment, floors and things like that to understand exactly what is there. And some of the complexities are not always known right there at the beginning of the process.

We discussed the possibility of a phased approach as a model that might work. Everyone agreed that seems to be an acceptable approach. It meets the NRC performance-based risk-informed objectives. It meets the licensee's desires to move forward in a timely manner and to have a continuous process.

As a result of that particular workshop, we published a white paper that was submitted to the NRC back in the May 2001 time frame that elaborated on that phased approach. What it provides and ensures is a clear understanding up front of the approach and the methods that would

be used. That's one of the keys to the start of the process between the licensee and agency, to extensively involve NRC in the planning process up front so that we both know where the process will go in the long run, that we have continuous and frequent involvement between the two groups, the licensees and the NRC. That we proceed with some aspects of decommissioning-like activities under the operating license with the appropriate amendments that account for the changes in the activities that will be taking place at the site.

And we try to plan to avoid some of the lengthy delays that will bring the process to a halt while we are waiting for either submittals or approvals in the process.

And one of the fundamental issues is making sure that licensees have been placed in safety programs and management programs to assure that the process proceeds efficiently, in a timely manner and safely. We believe that that process could take place without any additional rulemaking; that the existing rulemaking allows for that with proper interpretations.

The second white paper that was submitted recently relates to direct disposal option for non-11e(2) material to be disposed in a uranium mill tailings impoundments. That is an issue that the Fuel Cycle Facilities Forum and the National Mining Association have been discussing for about eight years between the mining milling industry and the fuel cycle industry because of similarities there in the materials, both chemical, physical and radiological characteristics.

It appears that the existing mills have a great deal of capacity in those impoundments with a design that assures long-term safety, long-term custodianship and stewardship issues being addressed that it makes, from a technical standpoint, makes a lot of sense to use that capacity for materials that are like materials.

We have found that there are mills and fuel cycle facilities that have both expressed interest in doing that, in going down that path. At this point in time, none have stepped forward with actual license applications. But the process is still in the works and we believe there will be interest if we can get regulatory nod that that is a process that makes sense the way we perceive it.

That was all captured in a white paper that the Fuel Cycle Facilities Forum and the National Mining Association jointly produced this year and submitted. That was submitted in response to the EPA's advance notice of proposed rulemaking. And the NRC received a copy of those comments. And it expounds on the merits of the approach, the technical justifications, the regulatory legal basis for actions and a recommended approach for ensuring safety.

We had a meeting with NRC staff earlier this year on that particular topic, didn't reach conclusion. There are open actions on both sides. So we did not submit a definitive request for approval. But we recognize that is something we need to continue to work on.

Then there were several other areas of successes. Our forum is successful at allowing decommissioning discussions among

licensees and submittal of comments to the agency.

I would like to quickly run through eight issues of importance and I would like to commend the Chairman for having recognized several of those.

I know I have my red light and adjusting the seat.

(Laughter)

MR. CULBERSON: Please don't shock me.

I would like to thank the Chairman for recognizing several of these issues in advance as being important issues and essential to the process. We also recognize those. I will not elaborate on all these much, but will be happy to discuss any of them further.

The need for cost effective disposal options is right at the top of our list. The option for 11e(2) disposal is one that is in there. We have looked at Subtitle C disposal, conditional use provisions of the rulemaking on disposition materials, placement of near background levels materials either in excavated sites where it makes sense or landfills. We just simply need more alternatives for the industry that are cost effective.

We need flexibility in the area of partial site remediation and partial site releases. That is one that typically gets handled under the broad definition of decommissioning as it is defined in the rulemaking and regulations. And that has a lot of very specific requirements that may or may not apply to a partial release if it could be done in a more efficient way. Sometimes that is overly restricted. So looking at the need for some interim guidance for those sites that are only looking at partial release

without a license termination is an area we believe could use some work.

Consistency in applying the requirements and goals, you have already discussed that. I won't elaborate any further.

Finality is a big issue. Several of the licensees in our group don't see the MOU as really addressing the finality. It still leaves it open ended and I think some of our sites are currently evaluating whether to proceed in a timely manner based on that lack of finality. It just leaves the issue open. And sites don't often know what to do, whether to spend the money on the risk that it may or may not be final, or delay until finality could be assured.

We could encourage the continued use of workshops, tabletops and open meetings to allow licensees and regulators to come together on issues to share those lessons learned and obstacles and success stories. I think that is a vital issue for the future and a lot of good could come out of that. We would support that fully.

Improvements in the efficiency and planning, implementation of final status survey is an area that could use some work. It consumes a tremendous amount of time and energy and resources on the licensee's and the agency's part preparing for final status surveys. And as a result, there are delays in that process. I believe that is a process that could be improved in terms of efficiency.

And then, some guidance could be useful on the areas of security requirements, emergency planning requirements, criticality safety requirements and safeguards during a decommissioning process, where

materials generally pre-homogenous, pretty contaminated and maybe the same rules and regulations don't apply during decommissioning in those areas.

I thank you for the opportunity to share with you. I apologize that I ran over.

CHAIRMAN DIAZ: Thank you, sir.

MR. ALLARD: Mr. Chairman, Commissioner, thank you.

First slide, please.

I really appreciate the opportunity here to highlight our decommissioning activities. As Dan has mentioned, we have got quite a bit of activities in Pennsylvania. In addition to our X-ray, radioactive material licensing, we license NARM, nuclear safety emergency response and inspection programs. We are very proud of this decommissioning program. Next slide, please.

I particularly want to acknowledge the NRC headquarters staff, the Regional staff, all our Federal partners, very professional interactions.

I also want to highlight our central office, DEP central and Regional staff, our counsel, administrative and executive and legal staff that assist us with these very complicated sites. They been a great help. And in particular, Bob Maiers on my staff who is here with me and answering all the difficult questions.

Next slide, please.

As you can imagine, Pennsylvania has a rich industrial

history. A number of industries through the years have utilized source materials. We were the first State to have a commercial operating nuclear power plant, lot of reactor development, Navy work in the State. So we have quite a number of challenging sites in the State.

Next slide, please.

The groupings of these decommissioning sites -- as you know, the SDMP are now the complex sites, the old material licensees, a rare earth mineral extraction. I don't want to get into a lot of race talk with the Molycorp sites, we have two of those sites.

We have radium sites. We were at the beginning of the radium industry back in the '10s and '20 area, a number of radium sites.

FUSRAP sites. These are Formerly Utilized Site Remedial Action Plan sites, the DOE sites, which are now transferred to the Army Corps. And we are the only State east of Mississippi to have UMTRCA sites within a State.

And as Dan also mentioned, we have two sewage treatment plants that are unlicensed sites that are contaminated with radioactive materials.

Next slide, please.

For this briefing, I would like to highlight several of these sites. One site that is not on this listing I just wanted to added in addition to the Safetylight and Quehanna sites in the Flannery building, which we will be talking about in detail, is the Cabot Reading site.

Next slide, please.

We have had a number of successes in the state. As Dan mentioned, we have just terminated the Parks Township license, the B&W Parks Township. We do have some challenges, the neighboring site, the SLDA.

As you know, the proposal is to move that over to the FUSRAP program with the Army Corps of Engineers. We share your concerns, Mr. Chairman, with the funding of this. I sit on the OSWAMO radiation focus group and we critically evaluate all the FUSRAP sites around the country. And we are concerned about the funding levels.

I also have a personal concern about the statutory authority for waste disposal. As you know, this authority to do the CIRCLA cleanups, is not really clear where the authority is for that waste disposal.

We have again, a number of successes. We partnered with Molycorp and other licensees in the decommissioning of these sites. In fact, have entered into agreements to assist the licensees in doing the survey as a "consultant" but an independent regulatory oversight for the licensee which has freed up regional staff assets in doing final status surveys and such.

A number of these sites present a challenge. They continue to present challenges and I will go into those details.

Next slide. Could you back up one slide, please. That is the Safetylight slide.

The Safetylight site was mentioned as a complicated site. It's the old US Radium.

I can't go into detail. There are two licenses up there, the tritium license, which we currently have a hearing request on that license renewal. So I can't discuss that. But what I can discuss is the other license, the cleanup.

We also license the site for radium. It's again, the old US Radium, incredible history from the '50s on, uses of radium, strontium 90, americium on site. Actually, Commissioner Merrifield and I both toured the site together a couple of years ago, just a real challenging site.

Some good news here. With the proposal for the site to be listed to the NPL.

Next slide.

Here is a picture of the site. The -- I'll highlight -- it sits on the Susquehanna River. We have some exhumed waste behind the facility, a number of barrels of waste that still have to be shipped off. There are some challenges with the characteristics of this waste.

We have buildings that are in disrepair, ceilings and collapsing buildings. It's a site that's a great concern to the Commonwealth. It actually sits in a residential neighborhood. There is a property here. The licensee has actually bought the property adjacent to it.

A lot of soil contamination, ground water contamination as such. Estimated total decommissioning cost, \$100 million plus or minus. The region has just authorized the final spend down of about \$180,000 for waste removal.

We have just met with EPA Region Three and the NRC

Region I on the path forward. There is actually an order in EPA even without the listing of the NPL can take actions and remove some of this waste from the site.

Next slide, please.

This site is an interesting site. This could take up a whole morning and we have done three-hour courses at the recent health physics society meeting.

This is a old facility up in the Quehanna wild area above State College. It's an old research reactor hot cell. It was rented by Martin-Marietta for SNAP generator use, so it handled up to six megacuries of strontium-90. Left a contaminated hot cell up there. To complicate matters, there was a licensee on-site that had the license for a while. They had a business failure, EPA had to come in and do an emergency removal of a large cobalt-60 irradiator, as you may know.

The financial assurance on that irradiator was only \$75,000. The disposable, I believe the estimate is about two and a half million for that removal.

Next slide, please.

As the owner of this facility, the Commonwealth has accepted responsibility for the cleanup. We have been up there -- and I been on board since early '99. They mobilized in 1998. There was some cobalt-60 removed initially, 2,000 curies. Much of the D&D is completed.

In fact, I was up this weekend, the decontamination is complete. We have literally cut up this one hot cell.

Next slide, please.

We built a million dollar robot, Houdini -- this is above the hot cells, built -- it was actually a robot that could compress and go down through the hatch, built a whole cadre of tools that could be utilized. There was a stainless steel process box inside this hot cell that had a morass of pipes and tanks filled with residual strontium-90.

Estimates at the time in the mid-'60's when it was free released at about 200 milicuries. We estimated up to 100 curies. At the end of the day, it was about 10 curies. But we spent about two or three months -- the doses savings, the deep dose the robot got over two or three months was about 170 rem, shallow dose about 230 rem. So we just couldn't, with the potential for airborne, we just couldn't put somebody into this hot cell.

Next slide, please.

We finished -- this is an old view of the hot cells. This is all gone now. We actually diamond wire cut up all these hot cells and basically are going to return this facility to a greenfield. It is in a state forest area.

Next slide, please.

I would add, our contractor, Scientec, that has been up there who has really done a lot of the technical work and the subcontractor on this has done a superb job for us. They will be doing the site closure.

The next challenge is the Cabot Reading site. Just quickly, this is where we do disagree with the Commission staff, to some degree, on

this site. We feel that the characterization of the site is not complete. We have concerns about -- there's a potential to place rip wrap over this residual slag which actually will be in violation of the Commonwealth low-level waste act as far as disposal - shallow land burial for low-level waste.

Next slide.

I also would add that it's in a neighborhood region in the city of Reading, what we believe is an environmental justice area. And it does present some challenges there.

Next slide.

This is actually from an NRC report, some of the slag that was placed over the embankment. Again, the site is on the Schuylkill River which presents some challenges.

Thank you. Next slide.

I won't go into a lot of detail. As you can imagine, the Unit 2, TMI Unit 2 was the mother of all reactor decommissioning we had in the 1980's. We have the Saxton Experimental Station, Peach Bottom Unit 1. There's some decommissioning of labs and such up at Bettis facility.

Next slide, please.

FUSRAP, we do have Superbolt facility that should be listed on the FUSRAP listing which we are trying to get listed. There is some uranium contamination. We are working with the region to try to get that listed on the FUSRAP.

Next slide.

As I mentioned, we do have the UMTRCA sites, the DOE mill tailings, the radium sites. We had a Sellersville radium site that we cleaned up. The Department did about \$6 million cleanup.

EPA spending about \$15 million in cleaning up a neighborhood in the Philly area, got a radium contaminated site, an individual who recycled radium in the 20's, 30's and 40's and that was done under a CIRCLA cleanup.

And the Flannery building.

This is and I will try to make this brief, a very interesting building.

This is the building that actually did the final extractions of the radium from the Canonsburg where they extracted the initial concentrates from the ore that came into Canonsburg.

The extracts were shipped up to Pittsburgh and in fact, Madam Curie got her first full gram of radium from the operations.

There was decontamination in the 60's and 70's, the building had gone through several sales.

There was an issue where an owner that was forced to take back the building.

That point in time, about 2000, we issued a radium license and gave them Reg. Guide 1.86 criteria and challenging as it was, a five story building, the labs were on the 5th floor, we had to do a few hazards assessments, but they basically gutted this building down to the bricks, down to the steel structure. And we just finally terminated the license a

year or so again.

The building was just sold.

This is actually a picture of Madam Curie out at Standard Chemical work site in Canonsburg. Next slide.

Other challenges within the state are our two unlicensed sewage treatment plants, the Kiski Valley and the Royersford Facility. These facilities were highlighted with several other sewage treatment plants in the Federal Register a number of years ago. The Kiski Facility was contaminated by enriched uranium and Royersford with fission products from a local nuclear laundry.

Kiski as was mentioned, enriched uranium, we do view -- the Department views the ash in the Lagoon as waste.

We've got an order requiring Kiski Valley Water Authority to do what we call a clean closure, remove that waste. We are working with the headquarters staff in reviewing their decommissioning assessments, their dose assessments. Next slide please.

This is actually a view of the ash lagoon.

Next slide.

The Royersford Waste Water Treatment Facility again, fission products, we have recently been challenged because the solvents are contaminated with fission products. They were out of capacity.

The facility cleaned out some of these tanks. We are the only State in the union that actually requires all of our landfills to have active radiation monitoring on their landfills.

This was picked up, an alarm went off.

We did a quick evaluation with Region I, with headquarters here with the authority, with the landfill itself. And at the end of the day, we were faced with having to shutdown a sewage treatment plant with severe pollution prevention issues and public health issues.

So we did allow these sledges with these fission products, cobalt 60 primarily, to go to RCRA D. Next slide please.

This is just a view of the Royersford Sewage Treatment Plant. Now, prior to this point in time, a lot of the solids were going over to a reed bed. This reed bed was used to reduce the volume of the solids, and has much higher concentrations and we're right now looking to work with the waste water treatment plant, the laundry, NRC Region I, and try to come up with a solution for this reed bed. And it has higher activity and we have some concerns about the regulatory authority.

When you discharge at appropriate concentrations, does that limit your liability once the radioactive materials go out but gets reconcentrated. And I will wind up.

Just in conclusion, we have a wealth of experience in decommissioning. We believe we worked well with the federal regulators, our NRC licensees within the State.

But we are moving toward Agreement State. I recently put in a request for 24 positions and hopefully within the next year and a half will be in a position to sign an agreement with the Chair on that issue.

But it all comes down to positions, to getting these positions.

Next slide.

Back to decommissioning. Our concerns, again, the inconsistencies really stem mostly with the unlicensed Kiski and Royersford, just the rigor of analysis that has gone into the Kiski site verses the Royersford site. I must say that Region I over the years, has done a lot of work in putting TLDs, and working and looking at the affluent streams out of the nuclear laundry.

We do have concerns about the modeling and assumptions at Cabot Reading, and we don't completely agree with the land use scenarios out there, the characterization.

The ATSDR did do a health consultation and came up with dose values above 25 millirem per year.

The characterization this was mentioned previously, we learned this with Quehanna, initial estimates, the total cost was going to be about \$4 million. We have spent some \$25 million as we have gotten into this site in chasing strontium-90. Exposure scenarios, again the Cabot Reading site is going to be a challenge. As you can see, we got a lot of activity.

CHAIRMAN DIAZ: We going to get better at this. So Madam Secretary is going to make sure that everybody knows how much time they have. I understand that you have a lot to cover.

Probably, we will get better at doing these lights and the shocks and everything else.

MR. ALLARD: I would add you have a full set of handouts

which covers all of these sites.

CHAIRMAN DIAZ: And that is really the answer what the Commission really always needs is a good set of supporting information so we can go through it ahead of time, and then, a condensed presentation, allow us to then address you in the proper manner.

COMMISSIONER MERRIFIELD: Mr. Chairman, if I may make two brief observations.

One, to apologize for that thumping we hear in the background is our yearly window washing efforts and as they are difficult to get and difficult to schedule. So we will all have to put up with that. But you did well in your presentation.

The other one is I have to compliment and this is a lesson our staff should take away, salting your presentation with a number of photographs I think helps to enhance the presentation and give us a real reflection on what these sites look like and their magnitude.

Reflecting back on my time dealing with superfund sites and these alarm bells goes off and then, when you actually take them out and show them what the site looks like, it actually puts things into a much different context. So I do think that is a very positive thing for our staff to emulate.

MR. ALLARD: I'm glad you mentioned that because we do -- Bob does put together an annual report that we do. We have been trying to keep our website up-to-date. The test is there now. We don't have a lot of images but we have been trying to keep a running log with the visuals on all

these sites.

CHAIRMAN DIAZ: Mr. Cherniske?

MR. CHERNISKE: Good morning, Chairman. Good morning, Commissioner. I appreciate the opportunity to speak with you this morning and feel honored to be here with the stakeholder panel here, also having association with Dave from the FCFF. We're a member of that group and obviously, have association with the State of Pennsylvania.

Next slide please. In Pennsylvania, we have two processing sites, the York site and Washington site that we refer to as the metal processing sites. Since the early 1900s, we have been processing concentrates there that have thorium and uranium, a materials licensed site there.

The York site recently terminated in September of 2004. We are moving forward and have been moving forward with the Washington site in phased approach, continuing in those efforts there.

Current operations from Molycorp perspective: We have two operating mines in the United States, one in Questa, New Mexico and another one in Mountain Pass, California. Also an ownership in a Brazilian niobium mine. So the funding from these sites help us with our decommissioning efforts.

From a corporate responsibility point of view, it's important for Molycorp and our remediation efforts that we do the right thing. And when we look at what the right thing is, we are looking at the community as well as our stakeholders for the company.

That means we do the socially and environmental responsible

action that is required. What we like to base that on is sound science and sound engineering. It is important to have that background in our process moving forward.

Next slide please. We are going to talk about now briefly, a little bit of our York reflections from the site that we just finished decommissioning, and then, bridge that over into and translate some of those lessons learned for the Washington site that we have in front of us still.

During the York remediation effort, we encountered some unsuspected conditions. Foremost and primarily was a ten-fold increase in what we initially had estimated to be the amount of material needed to be excavated and disposed of at the site. In addition to that, we ran into some material that was around the boundary of the site areas, what we refer to as material trending on or off site. It happened to be going under structures, railroad beds that predated property ownership of Molycorp back in 1930's. These two issues, primarily, over excavation of material and ten-fold increase, caused us to approach NRC and say, we would like to take time out in this process, evaluate what's going on, see if we can identify and learn from what we were doing in the past couple of years. We were granted that time from the State as well as the NRC group. We did conduct that assessment.

What we identified is that our characterization up front was inadequate. We did not do the job that needed to be done. Another thing we identified through this process that was important and I will share, is that

going back and looking at rail cars shipped off-site, we identified that we had been shipping off-site, significant amounts of material that was actually below the cleanup criteria.

So looking at these two areas as well as some others, we went back to our decommissioning plan and looked at an avenue that was available to us, soil volumetric averaging through what was referenced to be the AAR method.

We proposed that to the NRC that we were going to be moving forward and shared some details of how we planned to do that and we switched over to that.

What we got benefit from within that, was that we were allowed in our opinion, to stop chasing small low-level radioactive seams that had been dispersed throughout the site, and use the AAR volumetric method in lieu of that.

Next slide, please. And that is actually one of the first positives that are referenced from the York reflections, was the AAR method.

I'm a lay person, I'm not a technical person. I'm giving this presentation from a project management perspective. But the way I look at it, the AAR method combined the concentration-based criteria that we had, with the science from a risk-based criteria, kind of a melding if you will, so some flexibility within that program that allowed us to move forward.

Another positive that came out, as I indicated, we had over excavated some materials, some still left on-site. We worked out a

program with the NRC and the State in which we would review that material and return it if it met the criteria back into one of the cavities at the site.

That worked out well, obviously, with some savings of funds in that effort.

Off-site, dose modeling was used for material that was trending off site, very conservative values, but even with those conservative values, identified that the exposure was acceptable and that material was left under the underlying structures we had found them under.

State involvement, another positive that came out of it and this has already been touched upon. We had our NRC project manager help broker a deal between Molycorp and the State of Pennsylvania to utilize their Rad techs to come in and do surveys, do general oversight activities. There was a direct cost savings to Molycorp as well as a time schedule savings to Molycorp. We appreciated that effort.

What's left at the York site is we're going through the Act 2 Brownsfield so, as the Commissioner had mentioned, a goal of ours, likewise, is to get that back to beneficial use. We have completed the rad license, now we are moving on with the non-rad issues.

COMMISSIONER MERRIFIELD: Any postulation as to what that use may be?

MR. CHERNISKE: Commercial and industrial. It's local entities - we've been approached by two or three that have a potential use; a railroad spur coming into the site, relatively small 6 acre site. But that's what we are looking at. So that was our experience at York.

Now, I will translate that in our ongoing efforts at Washington.

We've already gone through a couple of phases at Washington. It's a much larger site. We've gone in and shipped off all the above surface material. We've taken all the buildings down, correctly disposed of those materials.

We've done some additional characterization. This came as a lessons learned from York, we used basically the same approach, and obviously we didn't want to go into this situation and find the same surprise that we found at York.

So we just completed that effort and will continue on with the existing decommissioning plan that was approved. Also, there is the AAR methodology identified in that plan, so we are going to deploy that at the Washington site.

I think I forgot to go on to the next slide on that but maybe somebody is keeping track for me. Okay, doing a good job.

Constructive working relationships is another -- this started with the York site. We weren't always in agreement but through many meetings with NRC and the State and the site, we need to build upon those working relationships that we established at York. These constructive meetings need to continue.

Dan and his staff should be commended. They are very approachable and been willing to work to solutions. And again, going back on our philosophy using sound, science, good technical-based discussions, not always in agreement but at the end of the day, we would reach and get to a point where we felt comfortable moving forward, again, going back and

being responsible for the community and our stakeholders. Very positive.

We need to continue that.

Last slide please: As far as again moving forward at the Washington site, it is important for licensees to have flexibility of all the approved tools that NRC has in their tool bag and licensees should have the opportunity to use.

Some examples, survey approach, MARSSIM that was referenced before. It's the in-line thinking, best practice, we're under the concentration based criteria. We're planning to use the MARSSIM approach. That's going to help us on timeliness and also cost-savings and analytical costs again.

We have a situation at Washington that's been highlighted as a recent hurricane, we have a watershed that runs through the area, Chardker's Creek, significant flooding.

We need to excavate and work right up to that creek. We'll have open excavations. We need to have timely confirmatory surveys, and again, we will be looking to the State and NRC and us to work together in that effort.

Realistic site modeling is another plus from a licensee perspective. The NRC is moving in that direction, they have stated their intent to do so.

I think the licensees as well as States, need to work with the NRC and maybe the Commission and the NRC can take a little more proactive role, I know they are working on this, but we need to have that

alignment so there is finality as was mentioned earlier. It is important.

Soil mixing: We see that as another guidance document coming down. That certainly would be advantageous to licensees. Meeting waste disposal criteria seems to be not quite so controversial. Working out the mechanics of meeting a cleanup criteria may be a little more sensitive. But that is a positive direction.

Disposal options as Dave has referenced before as well as others and specifically with the mill tailings sites has been part of those discussions within the FCFF group. Very important for licensees, very large component of cost that goes into these decommissioning efforts. And so anything -- we've seen some improvements from over the past number of years.

But we need to continue to try to drive down that cost and options we see from an economic standpoint obviously will help provide that.

I would like to wrap up by going back to the stated previously, these positive working relationships and being able to move through to get the flexibility that we are asking for, for use of these tools.

We see that we need to continue these constructive meetings. And I have also in looking through the draft report on decommissioning for 2004 year, I have gone in and highlighted section number 6. I would like to reference - Program Integration.

Within this document and this is -- we have seen some of this and want to see more of this. I'll just read a few passages out of this.

"Decommissioning process is becoming more efficient. A: Staff is assuming a more pro-active role and interacting with licensees." We have seen that. "Using expanded acceptance review process, getting involved earlier on in those stages and staying involved" - very important.

"Part E: Conducting in process or side by side confirmatory surveys as well as relying more heavily on licensees quality assurance programs rather than conducting large scale confirmatory surveys."

That will help on the costs as well as the timeliness again. I was really happy to see that in the report. I have seen some evidence of this. Things are moving in that direction. We would like to continue that for closing our Washington site. Thank you for your time.

CHAIRMAN DIAZ: Very good, Mr. Cherniske. You won the prize on timeliness. And let me see what the prize is.

MADAM SECRETARY: Give him a government pin.

CHAIRMAN DIAZ: You're now spending resources? I was going to invite you to come next year. Maybe that is punishment.

COMMISSIONER MERRIFIELD: This leads to a whole variety of questions I could ask and in fear of my getting electric shock, I will try to keep it focused.

I guess, first, Mr. Culberson, I got a couple of comments that your presentation provoked on my part.

The first one is the issue of partial site release. This is an area I think is an important one.

The Commission has previously acted and certainly signaled

that it is in favor of conducting partial site release at certain facilities that we regulate.

This is something that I championed as a Commissioner and something, an approach that we tried to take on when I was working on Super Fund issues on the hill. So I appreciate your bringing that issue up. It's certainly one that I think we need to keep on top of.

On the issue of finality and our memorandum of understanding with the EPA, as you well know, we had been under a Congressional mandate to do what we could to come to a memorandum of understanding with our colleagues over at EPA. Our staff, Carl Paperiello, Marty Virgilio and others were dogged in their determination to try to find a mutually beneficial agreement on that.

I think the MOU is probably the best we could do under the circumstances. I wish we could have gone further but it is what it is.

It does frustrate me, the comment that you made that there are sites that would be cleaning up but for the issue of finality.

I think perhaps if you could supplement that a bit for the record, if there are folks who might be able to talk to that, obviously, they may not want to surface themselves for fear of EPA coming after them, but that is an issue, something that Congress should know about.

I would encourage the forum to meet with folks up in Congress and let them know that there are live companies that willing to put money on the table to clean up sites but will not do so for fear of having that final solution. You can comment if you want on that.

MR. CULBERSON: I cannot comment with a great deal of specificity on that because I don't know specific sites that I can relate to other than the feedback I have gotten from some members.

It is feedback since the MOU was put into place. It doesn't predate that. It's not that they have not proceeded, it's that at this point in time with the MOU in place, with the agreements that have been put into place, the potential open-endedness of that process, that they are rethinking, my understanding is that they are rethinking the process that they are involved in as to whether it is cost effective to proceed on the path they were on, or to wait until they do have the assurance of finality.

I think most licensees want to go through the process once and to be done with it when they are done.

And it just leaves lingering, nagging questions of once we get signed off and our license termination under the NRC's requirements, then what?

That is not completely resolved by the MOU, in most licensees minds that I'm aware of. So it leaves a lingering question.

The feedback I was given recently was that some licensees are just thinking about their options in light of that potential open-endedness.

There is no precedent set that indicates that they would be revisited for sure other than historically, they have sites that have been decommissioned in the past that have been revisited.

So there is that potential out there. And it put a gap that we

didn't have previously.

Licensees have felt like in the past, that once they completed NRC's decommissioning process and were signed off and blessed, that truly was the end.

This just leaves that door open, the possibility of being revisited under a separate regulatory regime that maybe we are not addressing at this particular time.

That may not answer your question. It is a response.

COMMISSIONER MERRIFIELD: Let me put it as simply as I can. I may be old fashion common sense that leads me into this, but when you have a live party that has a site for which they are recognizing they have the responsibility to clean up, and when they have the money and wherewithal to do so, absent going against good environmental and health practices, I think the obligation is for the Government agency to get out of the way but monitor and verify that what is being done is right.

And it is disturbing to me and I think would be disturbing to the public, that the Government in a dispute is hindering these sites from being cleaned up and put back into beneficial reuse. I think that is something Congress should know about. I would urge you to take that message forward.

Early on in your presentation, you asked about -- you talked about the white paper and the possibility of mills, exploring the opportunity for taking some material and disposing of it in existing impoundments.

That's an issue which currently we have under consideration.

But I guess the question that arises in my mind is: What is the likely response of some of the host states in which those facilities would be located to those types of proposals?

MR. CULBERSON: MR. Allard may be able to speak better to that. We had some earlier discussions with at least one State, that being the State of Utah.

Just to understand a reaction to how they might perceive that. At the time they were a Non-agreement State. And presuming that we could meet -- a licensee could meet all of the acceptance criteria approved by the regulatory agency at the time, that they had no objection, to my understanding.

The process would involve an approval by the agency or by the State of the acceptance criteria - the material that would go in there. We identified a number of criteria that we felt were important.

There are obviously going to be lots of discussions and probably additional criteria.

But we believe we flushed out many of the criteria that would make sense by today's standards in terms of contaminant levels, types of contaminants, physical, chemical forms of material, similarities to existing tailings, compatibilities, incompatibilities.

We tried to address most of those issues and believe that we bounded it in a framework that any regulatory agency could look at and with good conscious say, meets the intent certainly of the regulations.

COMMISSIONER MERRIFIELD: Well, I think this

Commission and certainly this Commissioner has reflected on and is encouraging of alternative methodologies to safely dispose of material, recognizing the potential for impending lawsuits of some disposal facilities down the line using innovative ways to safely dispose of that material in an environmentally sensitive way, is one that we need to continue to think about.

Certainly the States which play host to these play an important role in making those determinations and certainly, we should continue to explore partnerships that would be available in that area.

Mr. Allard, I guess -- we talked and spent some time together at Safetylight and elsewhere and I'm familiar with the presentation in many of the sites you have in your State and I commend the hard work that you're doing in increasing your staff to try to grapple with some of these sites is a commendable thing, particularly at a time when governments are all challenged with resources.

The one question that comes out for me given our interaction over the years, what would you perceive as an area where legislative changes or some change in perhaps our regulatory practice would be beneficial to enhance the speed at which some of these sites could be remediated and put back into beneficial reuse?

MR. ALLARD: Good question.

Actually, we in Pennsylvania, we have actually incorporated all of the NRC's regulations by reference. So our approach is going to be very similar to the NRC's going forward. We really want this to be

seamless transition.

We got a lot of active decommissioning going on. We initially attempted to write regulations back in the early mid 90's. Our radiation protection advisory committee at that point said, look, let's just scratch this and there are other precedents to do that.

So we basically took that approach with the incorporation by reference of the NRC's regs.

Having said that, I think we do probably have perhaps some additional flexibility being a state agency with the Brownfields and such our "Act 2 " Brownfields.

We do have some close connections. Again, being within the DEP, Department of Environmental Protection, we have these sister bureaus to be able to work closely with and to have those efficiencies.

Regarding the mill tailings, the Canonsburg site had not been active in years. Being one of the commissioners for the Appalachian Compact Commission, we suspended our low-level waste citing process back in '98 just before I came upon board, we were the host State.

My predecessor, Bill Dornsceif and staff had a great effort trying to cite a low level waste site within Pennsylvania on a voluntary basis. Approaching 2008, one of my concerns and one of the reason why I keep pushing the Agreement State is so we can have Part 61 Authority should we have to reactivate that citing process. And if we ever did have to do that, not having the disposal capacity, my recommendation to the Secretary and Governor would be to relook at our State statutes with respect to that

process.

COMMISSIONER MERRIFIELD: I think and I appreciate that reflection. I think in terms of the proposal made by the Fuel Cycle Facilities Program Forum, that is one principally focused presumably on some of the western states.

Mr. Cherniske, I guess -- I appreciate the level of detail you had in your presentation and the degree to which you talked about taking the lessons from the York site and moving it toward the Washington site to enhance efficiencies and the ability to clean up the site in an environmentally sensitive way and more expedited way.

I guess my question for you and this is consistent with the discussion I had on the earlier panel with our staff: How do we capture some of the lessons learned, not just for the purposes of dealing with Molycorp, but for the greater good of environmental cleanups at the facilities of the type that we regulate so the things you learned could be passed on to other entities which are going to be going through that process down the road or similar for us as regulators, things that we need to learn in concert with those very same licensees.

MR. CHERNISKE: Commissioner, Dan made reference to a few tools that are out there already in the website and some of the information on that.

I don't know, maybe this is not a politically correct thing to say but the ADAMS System where you go in to retrieve documents and try to find documents that have been associated with other decommissioning

sites is not very user friendly.

COMMISSIONER MERRIFIELD: That is not a new comment.

MR. CHERNISKE: That is being very polite. I like Dan's comment about a map and having to be able to go in and click on some things and having some documents come out based on that click. That sound great and hopefully, that will be something we can move forward with.

But the first thing that came to mind, Commissioner when you asked me that question was the Fuel Cycle Facilities Forum. I got involved maybe three or four years ago with this process within the company, and shortly thereafter got associated with Fuel Cycle Facilities Forum.

I have that within the Fuel Cycle Facilities Forum. We have on many occasions and I understand the meeting scheduled for next week, we will have two or three NRC representatives in attendance at those meetings. There are continual attendees at the meetings and there is a lot of good just open discussion in these meetings, an industry-based meeting. So we can keep it but and have but be open discussion. And NRC comes in for a component of and then they leave. That is a tool we have. So that's leverage within the industries.

And whether or not there is a mechanism to take that and extend that through NRC to some others, I would guess, the first thing I would do is just suggest to any licensee that they check into the Fuel Cycle Facilities Forum and gain some of the benefits of the sharing of that information.

MR. CULBERSON: If I could comment on that. You're right, we do have a meeting scheduled next week and one of the agenda items, this is the second time, is exactly that, to see if we could produce a topical white paper of sorts that would capture lessons learned, experiences, success stories, things that we can share with the industry.

We are tentatively on track to do that. I don't have a time frame for you but from the standpoint of the facilities represented on the Fuel Cycle Facilities Forum, we hope we can capture that kind of meaningful discussion.

It would be fairly high level and a great deal of detail, but sufficient enough that future licensees could look at that as a resource to understand particularly if they have materials and site characteristics similar to the fuel cycle facilities. Understand some of the difficulties, the challenges, experiences we've gained in the 15 years we been meeting or 17 years.

So that may be a partial answer to what you are talking about. It may be the first step towards a more global lessons learned document.

COMMISSIONER MERRIFIELD: I don't mean to keep hammering the same nail, but in the discussions I have had over the years with our licensees, with our staff and others, I think there is a recognition that you ought to be doing these lessons learned plans.

The real value in utility in doing this in a concerted disciplined harmonized way, is that recognizing that a lot of the members of your group and others for whom we have to have oversight on their cleanup, don't

have a lot of resources. And we clearly don't have the resources to pass to them.

Each and every dollar that we can save in the up front planning process is a dollar that can be spent on cleanup. And to the extent we can get more cleanup done in a greater overall good, both for health and the environment, that's the best thing.

So I think there is a real opportunity here to do something very good, not just for the people who are members the group, but for greater society good as a whole and I think one we can't pass. Thank you Mr. Chairman.

CHAIRMAN DIAZ: Thank you Commissioner Merrifield. Let me just add on to that. It seems to me and this is also a theme that was across many of the presentations, that there is obviously significant variability or significant challenges any time you get with one of this size. And what I think the discussion points to is the fact that we need to improve the capability to address the variability.

And to the extent the staff can maybe come and see what causes the most variability and how can we address them, I think that will be good and the industry would certainly support those efforts. I think we will be going in the direction that Commissioner Merrifield was indicating. Seems to me like it is a win/win situation, something we should take a look at.

We have run over time but I wanted to ask one question from each one of you. We got this license termination plan. There is always

challenges and there is always added flexibility.

But at the bottom, when you get to the bottom of it, there is always something that to each one of you seems to be the more challenging issue.

What is the most challenging issue for each one of you to improve how we deal with license termination between the NRC, licensees, States? What is the key issue? Each one, please.

Mr. CULBERSON: That is a tough question.

CHAIRMAN DIAZ: Yes, sir.

MR. CULBERSON: I think in my mind and I'm not sure I speak for all the members of the forum but certainly in my mind and what I have observed over the years -- flexibility.

You mentioned the partial site release as being an important issue.

If it's done under the strict definition, if you will of decommissioning, that goes from a point of notification to a license termination, that process is very structured, very rigid, very prescriptive, does not necessarily apply, and all the pieces and parts don't match.

The decommissioning plan guidance is not necessarily generic for every site and there are priority issues within a plan. If information that is priority for a specific site and maybe less priority for a specific site where there is flexibility in addressing the priority issues on a risk-informed performance based approach, and not spending a lot of time and resources on the low priority items, that can be pretty well assured will

get done in the process.

Flexibilities in dealing with the timeliness issues and finality issues.

I guess flexibility would be the one word that I would see as a high priority and flies across a number of areas.

CHAIRMAN DIAZ: Some directed flexibility that still allows you to do the work according to what is required but balances the different issues in a manner that you can select.

MR. CULBERSON: With no compromise on safety and getting the job done, as Ray has said, technically correct and proper.

CHAIRMAN DIAZ: Mr. Allard?

MR. ALLARD: Yes. I would say probably two words, institutional controls.

In the restricted release scenario, where in fact, one of the Molycorp, Washington sites initially was proposed to be restricted release, looking at a thousand years, what sort of viable institutional controls can you really put in place and you really, our conclusion, our staff, John Harmon in our southwest regional office did quite an analysis and we shared that with the NRC, those binding institutional controls on the property, the deed annotations, who's going to be the third party? Will there be enough money to maintain this site down the road?

Having said that at the end of the day, these are all preliminary discussions, looking forward on the Safetylight side, looking at the amount of money, what is available to EPA to actually remediate this

site completely; at the end of the day, there may be a need to set up some institutional controls and have a restricted release type of scenario for that particular site. So that whole restricted release scenario and institutional controls are big concerns in our mind.

CHAIRMAN DIAZ: All right, Mr. Cherniske?

MR. CHERNISKE: Chairman, I guess I have to expand upon first, Dave's comments with regard to flexibility. I tried to make that the theme of my presentation and truly believe that is where the value is for the licensee. Possibly to expand upon what Dave indicated and I'm not thinking necessarily flexibility with approval of the decommissioning plan, but once you get beyond approval of decommissioning, there are many tactical operational issues that you move through in the process. But it is a long process that you need to continue to work through and have the flexibility of applying the tools that are available, that have already been approved. And again, if technical sound science indicates that is an applicable use of that tool, you should have the flexibility to move forward.

So again, if you been looking for one general theme, one area, I would have to state the same.

CHAIRMAN DIAZ: All right, thank you very much. We certainly appreciate you coming and spending your time exchanging with us. I personally believe it was very fruitful.

Commissioner Merrifield?

COMMISSIONER MERRIFIELD: No comments.

CHAIRMAN DIAZ: And with that we are adjourned. Thank

you very much.

(Proceedings were concluded)