

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

Tuesday

October 7, 2003

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

COMMISSIONERS PRESENT:

NILS J. DIAZ, Chairman of the Commission

EDWARD McGAFFIGAN, JR., Member of the Commission

JEFFREY MERRIFIELD, Member of the Commission

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

STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE

Secretary

General Counsel

DR. WILLIAM TRAVERS, EDO

DR. CARL PAPERIELLO, DEDMRS

CHERYL TROTTIER, RES

MARTIN VIRGILIO, Dir., NMSS

DAN GILLEN, NMSS

DR. RON BELLAMY, Region 1

GARY R. LEIDICH, President, CNO, FirstEnergy

G.A. KUEHN, VP, Program Director, Saxton

RODGER GRANLUND, CHP, Saxton Independent Inspector

KENNETH J. HEIDER, VP, Connecticut Yankee

G.P. van NOORDENNEN, Regulatory Affairs Manager, Haddam  
Neck (Connecticut Yankee)

## PROCEEDINGS

CHAIRMAN DIAZ: Good morning.

The Commission is meeting this morning to hear from the Office of Nuclear Materials and Safeguards and the Office of Research and Region I -- boy, everybody is here -- on the start of the NRC decommissioning program.

Then we will have a panel where we will hear from industry and special stakeholders on specific issues that I think will be extremely interesting.

This is an annual update that is provided to the Commission on this program. I think we were last briefed October of last year. This is an annual program. This is the first time the staff is briefing the Commission after the transfer of most of the program from NRR to NMSS. We want to see how that transition has gone. We want to make sure that it's actually paying off. Efficiency has no decrease in effectiveness. I'm sure that's correct.

And, of course, we are always interested in seeing what new challenges you have ahead that will actually help us to do the decommissioning program better.

And fellow Commissioners?

COMMISSIONER McGAFFIGAN: I have a comment to make that isn't actually related to NRC business. I want to note that the Red Sox have made the American League championship series. I grew up, I must

admit, as a Yankees fan in Boston.

My children are Red Sox fans. My mother, sister and brother are Red Sox fans. I have very mixed emotions as I go into this next series because I do wish the curse of the Bambino to be raised from the Red Sox, not necessarily at the Yankees' expense. But if that's what happens, so be it. Maybe it's the time for the Red Sox because they are playing wonderfully. And I'm sure my fellow Commissioner from New England, who probably is a lifetime Red Sox fan -- I grew up loving Mickey Mantle and Whitey Ford. I also loved Ted Williams. But for some reason -- my father, my father was a Yankees fan. So that's where I got it from.

CHAIRMAN DIAZ: But there is no relationship between decommissioning the Red Sox and the present material.

COMMISSIONER McGAFFIGAN: The Red Sox are never going to be decommissioned. The Red Sox are an eternal team. Even if they never win a World Series again, they will have the hearts of the Red Sox nation forever.

COMMISSIONER MERRIFIELD: Mr. Chairman, coming as I do from part of the Red Sox nation in New England, I think perhaps it's a half full versus half empty aspect to it. I think there is an consistency here. The decommissioning is that of the Yankees and not of the Red Sox. So I share and perhaps exceed Commissioner McGaffigan's exuberance about what was a terrific win last night.

On that note, I would like to bring us back and segue to the

heart of this meeting. As the Chairman and Commissioner McGaffigan know, given my own background and my past history in the areas of waste and decommissioning, this is one of the meetings I look most forward to each year.

And I would want to note going out of the box, I think there has been a tremendous amount of achievement in the going on five years that I have been here in the ability of our agency to get its hands around the scope of the decommissioning sites that we have to achieve.

I think it's very important, and I think this meeting today is very important in demonstrating that not only does our agency have the capability and the success in regulating the safe use of nuclear power and nuclear materials, but also an ability and a representation that we have the ability to make sure that at the end of the day, when these facilities are no longer utilized for either power production or for the production of materials, that we have the wherewithal and the capability to make sure they are put into a safe state where the public who live around these sites can use those and we can move forward to continue economic redevelopment of these vitally important areas.

So, Mr. Chairman, I am very much looking forward to the meeting.

I would make one last note, as the Chairman knows, I had particularly lobbied for the notion of trying to have local community participants, notably the individuals representing the Saxton area, come tell

us about what has happened at that facility and to give us some notion of how we could continue that success and perhaps improve on it as we look forward some day to ultimately decommissioning all reactors currently under our authority.

So I'm very much looking forward to that. Mr. Chairman, I think it's using specific examples like this is something we should look forward to. And I'm already thinking about next year and perhaps focusing on some other areas and giving them a little bit more light. Because I think it does -- it provides some real world examples in a more microscopic way of what we are accomplishing.

So I thank you, Mr. Chairman, and look toward to an excellent meeting.

CHAIRMAN DIAZ: Thank you, Commissioner Merrifield. We do appreciate you suggesting that we bring the Saxton site viewpoints and experiences to this meeting. With that, Mr. Travers?

DR. TRAVERS: Thank you, Mr. Chairman. Good morning to you and the Commission. We are happy to be here to provide you our annual briefing on the decommissioning program. I will just make note of the fact that we sent a SECY paper up that provides our annual update, SECY-03-161, for anyone's interest.

You have already recognized that a number of organizations, Chairman, are represented here at the table. And certainly the decommissioning program is a multifaceted one with NMSS in the lead, but

it also actively involves a host of offices including NRR. It includes the Regions, Research and the Office of General Counsel. So we have a real team element to what we are going to be presenting today. I think you will see that.

Consistent with the direction you provided, this year's briefing will focus on power reactor decommissioning. We are going to head off in that direction in just a moment. We intend to give you an overview on the status of reactor decommissioning overall, follow that up by a set of specific examples, a number of different reactors that are in various stages of decommissioning and discuss some of those projects.

And finally, we want to discuss with you today some of our efforts to enhance our decommissioning program activities.

With me at the table, I should mention, is Carl Paperiello, of course, my deputy; Martin Virgilio is the Director of the Office of NMSS; Dan Gillen, who is the Chief of the Decommissioning Branch in NMSS; Cheryl Trottier from the Office of Research; and Ron Bellamy from Region I.

With that, let me turn to Carl for just a couple of opening remarks.

DR. PAPERIELLO: I would just like to make an opening observation. Although this meeting is focused on the reactor decommissioning, I would like to acknowledge the significant contributions of the Office of Research as a support organization for the decommissioning program. There were not and are not even now comprehensive textbook

procedures for demonstrating compliance with the decommissioning rule other than conservative schematic screening models.

Today in cooperation with the Federal family, we have sampling procedures that are still being extended, analytical protocols will soon be published in final form, and common, more realistic three-dimensional models are being improved and developed on well established platforms.

We also participate in several international efforts to validate models, model parameters and to establish databases for parameters used in models. So there's a major support effort both in specific cases and generally by the Office of Research.

And Mr. Gillen will make the remaining presentation. Thank you.

MR. GILLEN: Thank you, Dr. Paperiello.

Good morning, Chairman Diaz, Commissioner McGaffigan, Commissioner Merrifield.

I recently replaced Larry Camper as Chief of the Decommissioning Branch in the Division of Waste Management. And I will be providing the majority of the briefing this morning. However, my colleagues at the table here and in attendance may provide additional information and answer questions to enhance the presentation as we feel necessary.

For the past three years, we have provided an annual report



addressing all aspects of the decommissioning program, including material facilities, fuel cycle facilities, reactors, uranium recovery facilities, research activities, and program wide actions. Although the paper this year, which is before the Commission now, still provides detailed discussion in each of these program areas, today's briefing, as you have directed, will focus on reactor decommissioning activities.

The decommissioning program is a diverse one, involving many types of facilities and many organizations both internal and external to the NRC. Within the NRC, NRR, NMSS, Research and the Regions share responsibility for decommissioning program activities.

NMSS regulates the decommissioning of nuclear material facilities, fuel cycle facilities, uranium recovery facilities, and power reactors. The Decommissioning Branch works with the other organizations on a case-by-case basis and routinely coordinates programmatic activities through monthly decommissioning board meetings.

NRR has project management responsibility for all stages of research and test reactor decommissioning and oversight of the initial stages of power reactor decommissioning.

Research, as mentioned in Dr. Paperiello's remarks, is very involved and provides technical support through the development of guidance and development of data and models to support dose assessments. The Regions project manages some decommissioning material sites and have a particularly significant role in reactor

decommissioning.

Next slide, please.

This slide expands on the role of the Regions. At reactors, resident inspectors remain at the site until certification of permanent cessation of operations is received, all fuel is out of the reactor and significant remaining open items are resolved.

Experience has shown that the resident remains for about one year after certification is received. After this, regional inspectors conduct on site inspections in accordance with Manual Chapter 25.61, which is the inspection of decommissioning reactors.

Inspection plans for the year are based on expected site decommissioning activities. The Regional goal is to complete all required modules during the fiscal year and discretionary modules as warranted by site activities.

Inspectors also conduct close out inspections. These inspections focus on confirmatory surveys so that NRC is familiar with the licensee procedures and has confidence in licensee final status survey programs. ORISE, with regional inspector accompaniment is used to conduct confirmatory surveys for NRC.

Regional products for decommissioning reactors are periodic inspection reports issued approximately quarterly. These get wide distribution and are discussed at local citizen's advisory panel meetings. The Regions coordinate closely with the NMSS project manager and

technical staff. Regional inspectors work for NMSS project managers -- work with NMSS project managers to plan inspections and to follow up on open technical issues.

The Regions have frequent interaction with local, state and federal agencies due to significant public interest in decommissioning. State inspectors are either full-time at a site such as Maine Yankee or they maintain offices on sites such as Haddam Neck with frequent visits to those offices.

EPA is also involved at these sites, both from a radiological and non-radiological standpoint.

Licensees voluntarily set up citizen's advisory panels chaired by local officials. The panels serve an extremely useful function to help keep the public informed. The Regions are routinely asked to attend panel meetings and present updates on inspection findings, future plans and status of NRC's actions. Attendance at these meetings has helped increase public confidence in the NRC.

Next slide, please.

There have been a number of programmatic changes in the decommissioning program during the past year. Most notably, project management responsibility for the majority of the decommissioning power reactors was transferred from NRR to NMSS.

In the past, NRR was responsible for project management and oversight for power reactors undergoing decommissioning until the spent

fuel was permanently removed from the spent fuel pool.

By SECY- 02-0198 in November 2002, the staff informed the Commission of the realignment of project management of decommissioning commercial nuclear power plants. This realignment sets the transfer responsibility for PM of decommissioning reactors to take place earlier in the decommissioning process. NMSS now has project management responsibility for power reactors once the plant has completed certain regulatory and safety milestones then ensure that the plan more closely represents a materials facility temporarily storing and processing radioactive waste.

The reactor decommissioning program currently includes 20 power reactors, 17 of those are commercial power reactors, and 3 early demonstration reactors. It also includes 11 research and test reactors.

In January, NRR transferred responsibility for 13 reactors to NMSS. NRR retained responsibility for two reactors, Indian Point, Unit 1 and Millstone, Unit 1 because extensive stakeholder interest at those facilities makes it more efficient for NRR to maintain the PM responsibility. NRR also retains responsibility for all the research and test reactors.

To date, the staff has approved license termination plans for Trojan, Maine Yankee, Connecticut Yankee, and Saxton. The staff currently is reviewing the Big Rock Point license termination plan which was submitted in April of this year.

The slides that follow I will focus on three particular reactors in

various stages of decommissioning. Big Rock Point recently submitted its LTP. Connecticut Yankee had its LTP approved and is conducting remediation activities. And Trojan is in the latter stages of remediation and is conducting final status surveys.

Next slide.

These next two slides show the NMSS/NRR breakdown of power reactors by decommissioning options. The decommissioning power reactors are either in SAFSTOR or in DECON.

The SAFSTOR option means that a plant will achieve a safe stable condition and will maintain that condition until future decontamination to unrestricted release. Currently there are ten reactors in SAFSTOR shown on this slide, seven under NMSS responsibility and three under NRR responsibility.

Next slide.

Ten of the reactors in decommissioning are in DECON status. Eight under NMSS and two under NRR.

The DECON option is the removal or decontamination of equipment, structures, et cetera, to permit unrestricted release. As would be expected, the reactors furthest along in the decommissioning process are in this group.

Trojan, Maine Yankee, Connecticut Yankee, and Saxton already have approved LTP's. The staff currently is reviewing the LTP for Big Rock Point. Yankee Rowe is expected to submit its LTP before the end

of the year. And the LTP for Fermi 1 is expected to arrive in 2004.

Fermi 1 is currently in SAFSTOR, however, it's on this slide under DECON because the staff expects Fermi 1 to go to DECON soon when the licensee submits its LTP.

Millstone 1 plans to remain in SAFSTOR until Unit 2 license expires. However, the post shutdown activities report submitted in June of 1999 has chosen a combination of DECON and SAFSTOR options as shown on this slide.

COMMISSIONER MERRIFIELD: Just a point of clarification here. You said that Fermi 1 is currently in SAFSTOR? Is that what you said?

MR. GILLEN: Yes.

COMMISSIONER MERRIFIELD: When I was there last year they were actually conducting some remediation like activities. Maybe it was a preparation to go into decommissioning.

I guess the question coming out of that is merely being in SAFSTOR doesn't mean that they have sort of bolted the place up and locked it. There may, in fact, be activities associated with the ultimate decommissioning that may be underway, even though from a formal sense in our process they might not be in formal decommissioning.

MR. GILLEN: They have shifted over to DECON which is why they are on this slide. I guess they still need to submit the LTP in which they will formally then be in DECON mode.

COMMISSIONER MERRIFIELD: Okay. So you created some

relatively clear categories here. There may be some degree of work, even though some may be in SAFSTOR, there might be some work that they might have underway, even though they don't have necessarily a formal license termination plan?

MR. GILLEN: Yes.

The next three slides for the specific reactors display key milestones in the decommissioning process but I will not speak specifically to those milestones. I will speak of the staff's experience during each review.

Trojan was the first LTP evaluated under 10 CFR 50.82. The staff recently had developed a standard review plan for reviewing LTPs. And as such, Trojan's LTP was the first review under that plan.

The staff approached the review by developing the safety evaluation report and used information gaps in the SER to develop requests for additional information. Initially, the licensee's RAI, request for additional information responses, did not completely address staff information needs. To address this, the staff started having teleconferences to resolve the RAI's.

Trojan provided draft revisions to the LTP for review. When all issues were resolved, Trojan resubmitted the LTP.

What we learned from this process is that early communication and coordination with the licensee are key to having have a successful and timely LTP review.

Next slide.

COMMISSIONER MERRIFIELD: Before you go, for further clarification here. You have listed here as decommissioning complete in 2004.

My understanding is that, again, having been out there, there was insufficient money in the fund to complete what a civilian, a member of the public might think is a decommissioning activity, i.e., the buildings taken down and all of that.

I think by your last bullet here, decommissioning complete in 2004, what you mean to elude to is that the radiological decontamination activities that we are concerned about will be complete even though the civil works including the tower and the other major facilities will not be complete?

MR. GILLEN: Yes, I think that's correct.

COMMISSIONER MERRIFIELD: And that's principally because they are going to be building up additional funds in a decommissioning fund to complete those other activities at some later date. But what we are concerned about, the radiological materials will have been removed?

MR. GILLEN: Yes.

Connecticut Yankee submitted its LTP approximately 11 months after Trojan's submittal. Initially, this LTP review process also did not go smoothly.



After the initial review, the staff had identified over 300 outstanding technical issues. Communication between the staff and Connecticut Yankee was poor and resolution of technical issues was slow and difficult.

As the staff learned lessons from the Trojan LTP review process, progress on the Connecticut Yankee LTP review improved. The staff drafted an SER to identify gaps in the information necessary to improve the LTP.

The staff and Connecticut Yankee began having teleconferences two to three times a week to resolve outstanding technical issues. Difficult technical issues were discussed in face-to-face meetings held approximately every two weeks. All technical issues were resolved through this process.

As with the review for Trojan, coordination and communication were key to the successful completion of the LTP review.

The staff's analysis of the LTP reviews for Maine Yankee and Saxton identified similar lessons learned. These lessons learned were published in Regulatory Issues Summary 2002-02, issued in January 2002.

I would like to mention here also that Connecticut Yankee is one site that triggers the NRC/EPA MOU. This will require that we consult with EPA on this project.

Next slide.

Big Rock Point is in the early stages of decommissioning,

having submitted its LTP this past April. The staff is expecting to have the LTP approved in June 2004, 12 months after its acceptance. This review schedule is significantly shorter than the two plus years taken to review the license termination plan for Connecticut Yankee.

There are several reasons for the shorter review and approval period. First, Big Rock Point is the first reactor to be decommissioning with NMSS oversight only. Previous LTP reviews were conducted by NMSS but project managed by NRR as discussed in SECY- 02-0198.

NRR and NMSS revised the approach for project managing reactor decommissioning to make more effective use of the decommissioning expertise in NMSS, thus improving the efficiency of dismantlement, decontamination and license termination efforts.

Second, applying the lessons learned from previous reviews, the staff worked extensively with the licensee in the pre-submittal stage through monthly telecons and meetings to ensure a high quality LTP. In addition, Big Rock Point addressed issues identified during the Maine Yankee, Connecticut Yankee and Saxton reviews in its LTP prior to submittal.

Third, Big Rock Point has been responsive to requests from NRC. Timely submittal of information decreased the amount of time it took to develop the LTP and will continue to support the shorter approval process.

Recently we attended a public meeting in August at the site

and it went very smoothly. There were no significant issues identified in that public meeting. So things are looking good for that review.

Next slide.

Because of the nature and number of sites in decommissioning and the overall decreasing resources for the arena, we continue to strive to improve our program, particularly in the efficiency and effectiveness of our licensee interactions and in our stakeholder outreach.

First, as just discussed, we have learned that pre-submittal meetings are vital to the successful submittal of a high quality LTP. The LTP's submitted by Trojan, Connecticut Yankee and Maine Yankee did not contain sufficient information for the staff to prepare a complete safety evaluation report.

The lack of sufficient information in the initial LTP submittal was not the result of poor licensee performance but instead a misunderstanding of the type and level of information required by the staff to prepare a complete SER. Big Rock Point and future reviews should demonstrate staff improvements in this area.

Second, using an expanded 90-day acceptance review has been found to be instrumental in identifying issues early in the review process without expending a lot of resources. Until recently the staff would perform an administrative 30-day review of incoming LTPs and DPs to verify that the licensee's submittal contained the necessary broad categories of information.

If acceptable, the staff would then perform a detailed technical review. This process led to late identification of major issues and a large number of open technical issues requiring resolution before LTP or DP approval.

Third, instead of trading multiple iterations of letters over an expended time line, the staff has implemented a process to resolve RAIs during meetings so that the staff and licensee have common expectations. These meetings, which are open to the public, greatly reduce the amount of time and effort required to resolve technical issues.

Fourth, in an effort to improve the inspection process, the regions revised the inspection procedure to prioritize, based on risk, the areas to be inspected at decommissioning facilities. This resulted in a revision of Manual Chapter 25.61, core inspection requirements, and focuses inspections on those areas deemed by the staff to be the most safety significant.

Lastly, our guidance consolidation effort should improve the decommissioning process. Staff and licensees can now find the essential guidance needed for decommissioning in one three-volume guidance document issued final last month.

Next slide.

To support stakeholder outreach, we have made it a point to participate in conferences such as waste management, the fuel cycle facilities forum, the low level waste decision-makers forum and workshops

sponsored by NEI, EPRI and Organization of Agreement States.

This has proven to be an excellent means to share NRR expectations and receive feedback from licensees and interested stakeholders. Just two weeks ago the decommissioning branch chiefs attended an international conference on environmental remediation and radioactive waste management in Oxford, England.

The conference was attended by over 600 representatives from 40 countries. The conference was dedicated to remediation, decommissioning, and waste management activities around the world. The section chiefs provided two presentations, co-chaired four sessions and participated in the organizing committee for the conference.

Their presentations focused on the current status of NRC's decommissioning program and the status of the West Valley demonstration project remediation.

The staff continues to involve stakeholders in the decommissioning process. State and local representatives are invited to participate in technical discussions and meetings with licensees. State and local representatives also routinely participate in inspections, in- process radiation surveys and confirmatory surveys.

Communication plans are another resource for improving stakeholder involvement. Recently the staff completed preparation of communication plans for the 15 power reactors in decommissioning that are project managed in NMSS. These plans identify the stakeholders and

identify the types and frequencies of interactions to take place during the decommissioning process.

In summary, the staff is taking steps to continuously improve the decommissioning process. We believe the experience we have gained from the review of the first wave of LTPs will greatly improve the review of the LTPs for the second wave of licensees, Big Rock Point, Yankee Rowe and Fermi 1.

I will now turn over this morning's discussion to Martin Virgilio who will summarize programmatic highlights of FY-03 completed and FY-04 to come.

MR. VIRGILIO: Thank you, Dan.

Good morning. Just on slide 13, I just wanted to take a few minutes to point out some of the major accomplishments in the decommissioning program over the past year. These go broader than the reactor accomplishments. But just to provide the context.

In May of 2003 we completed our analysis of a number of issues associated with implementation of the license termination rule that we promulgated in 1997. Particular attention was given to recommendations for restricted release in the use of alternate criteria.

This analysis also addressed issues associated with implementation around release limits, exposure scenarios and measures to prevent legacy sites. The staff provided recommendations on each of these issues for Commission consideration and we are currently awaiting

feedback from the Commission on this proposal.

The second major accomplishment we have in '03 was the approval of the license termination plans for Maine Yankee, Connecticut Yankee, and Saxton, as Dan pointed out. And the review and approval of these license termination plans required multi-discipline teams.

We relied heavily on the support from OGC, Research, the Regions and others, as Bill pointed out. This is the partnership. We work very cooperatively.

The third major accomplishment I wanted to highlight is the removal of an SDMP site in September '03, the Watertown site. This is fairly significant. These are very complex sites, require a lot of resources, a lot of capital management and staff capital to bring these to closure.

In addition to these accomplishments, we completed the consolidation guidance, as Dan mentioned. This is, I think, very significant in terms of looking for future efficiencies and opportunities to make our program more effective, as the Chairman pointed out in his opening remarks.

And we also completed the negotiation of the agreement with EPA intended to avoid dual regulation. And Dan, in his presentation, pointed out one of the facilities that has actually triggered the threshold for our discussions with EPA.

The last slide on page 14 goes to future activities. And I would like to start out by saying that FY-03 was a very busy year for us in the

decommissioning area. And I expect '04 to be just as busy if not busier.

In the backdrop of what Dan talked about, what we did was completed 300 material license action terminations. And we do this each year. We expect this pace to continue. So there's this base load of work that we are continuing to work on as we focus on these more complex and more significant projects, some of which Dan touched on today.

As you are aware, we have the license termination rule analysis and the recommendations for some follow-up activities in 2004. And should you, the Commission, give us the feedback, we are ready to start on some of those activities, starting with including engaging the stakeholders about the analysis and initiating a rule-making plan for some of the recommendations included in that analysis.

The staff is also proceeding in parallel with your review of that analysis to actually start implementing some of the recommendations on a case-by-case basis, bringing those issues forward to the Commission as they come up.

Finally, as a result of the staff review of that analysis, we left you with one IOU around intentional mixing. And that issue will be provided in a Commission paper to you due this fall.

The implementation of these recommendations as a package, I think, is going to give the staff and the licensees we regulate a little bit more flexibility, allow us to make a technically sound and risk-based decisions on licensing termination decisions and allow us to be more efficient and



effective in the long run.

Decommissioning funding continues to be an issue for us.

And the Commission has requested that the staff provide a report to this on how it's progressing, what progress we are making. We owe you that report and we are working on that and we are due to provide that to you this fall.

The Commission has also directed us to look at one of our licensees, AAR Manufacturing, and to see if we could use that facility as a pilot for considering alternate approaches to how we would deal with restricted release criteria. And AAR and the staff are now looking at various options including one around restricted release for a portion of the site and plans to possibly enter into a settlement agreement with the NRC for the restrictions and controls needed to provide appropriate protection around the restricted release portion of the site.

The staff will provide a review and analysis of that to the Commission shortly after we get the information from AAR.

The staff is also looking at ways to improve our public outreach. I think that Dan touched on a few of these issues. We are looking at how to communicate better via our web site, how to communicate better in face-to-face interactions with the public and the stakeholders in and around the sites that we are regulating.

This is part of a very larger effort to refocus the whole program as an agency-based program. Incrementally over the last several years in these presentations you have seen us go from the NMSS, what one might

think about as a stove pipe look to a much more broad agency-wide approach, which we all believe is a better approach to the decommissioning program.

In September of this year, we just completed an independent assessment of our decommissioning program. Part of what we do is in response to commitments made in response to GPRA and how we deal with that as commitments in the strategic plan.

We systematically go back and look at various program areas. This year we systematically looked at the decommissioning program. We looked at it from the time period of 2001 to 2003. Looked at what changes we have made to the program over that time period and assessed independently whether those changes were objectively and independently, whether those changes were, in fact, effective.

The staff, as a result of that analysis, has identified a number of opportunities to improve the program, some of which Dan touched on today. But a lot of them go to internal program management issues, improving the efficiency on timeliness of decommissioning activities at all of our sites without impacting either safety or public confidence.

And then there's a second area that we are focused on. That is minimizing future decommissioning problems for the operating license sites today.

That's all I wanted to say. I will turn it back over to Bill Travers.

DR. TRAVERS: Mr. Chairman, in closing the staff's

presentation I will resist commenting on that other hard luck baseball team, the Cubs of Chicago. But that does conclude our presentation this morning.

CHAIRMAN DIAZ: Thank you, Mr. Travers and thank you to everyone for a very good discussion. Decommissioning is something that we cannot get around. We all are going to be decommissioned at one time or another, including the Boston Red Sox and the New York Yankees.

Having said that, I think that it is obvious that decommissioning, in many ways, has most of the aspects that we find in our regulatory life. There is an issue of public confidence that there's not going to be a bad legacy. There is going to be a good legacy. That this site will either be usable in the manner that, you know, has posed no restrictions in an unrestricted way, or that the institutions know what they are doing to maintain protection of public health and safety in the cases in which there are some restricted conditions attached to it.

And so we consider this work, like Commissioner Merrifield says, a very important part of our mandate. We need to ensure that these things are taken from -- I think as Commissioner McGaffigan was saying, from cradle to grave. Obviously, I'm using my fellow Commissioners' phrases today just to get a start.

Today is my turn to go first. So I am enjoying that position. Let me start with a comment. Then I have some questions.

I think it was Mr. Gillen that said that fundamentally the staff has

found that, you know, coordination and communication is essential. Well, I think it is essential in everything that we do. But I guess you were highlighting that in this particular case, you have found that that is an issue that needs to be watched over, that you don't get into coordination or a communication gap or problem that will delay the issues and, you know, then they become bigger as they get delayed.

Could you comment on how what you have learned on the issue is being applied in a manner that we have the proper coordination and communication every time that we do this?

MR. GILLEN: Well, I think it's been identified formally in our description of the lessons we have learned in that regulatory issues summary. So now all of our project managers are aware. There's almost guidance on what to do as far as early meetings, early resolution of issues before we get the formal submittal to sit down periodically with the licensee.

We have been doing that already with Big Rock Point and with Yankee Rowe, the two that are closest now. And so we expect that those two year periods will now be looked at as a one-year goal.

MR. VIRGILIO: There are two other things I would add to what Dan said.

One is that we have a management integration team where we look across at these sites, we work proactively with the internal stakeholders to make sure that we are aligned.

The other thing that we do, and Dan might have touched on it in

his presentation, was we changed the way we do acceptance reviews.

Where we just looked at what was the application to make sure it had all the right parts. And we did that quickly.

Today we take about 90 days to do our acceptance review.

And we make sure that there is sufficient information to allow us to make a regulatory decision. That helps us focus the engagements that we have with the licensee around particular areas where there may be deficiencies or incomplete information in the application.

So I believe those two areas also aid in ensuring that we are efficient, effective, focused in our interactions as we proceed to make our licensing decisions.

CHAIRMAN DIAZ: And the issue of using communication as a tool, which is something that I place great value in it, is that now integrated in a manner that people realize that the communication is not just something that you do because there's a communication plan, but that you do because it is essential for the management of the project?

MR. VIRGILIO: Yes.

CHAIRMAN DIAZ: All right. I'm happy to hear that.

All right. Let's go to our some objective measures.

We understand that you are conscious of this issue, working at it. What kind of objective measures? I know we talked a little bit about schedule. But there is a schedule and there is progress in the actual, you know, work.

How are you using what you now know to develop some objective measures of how the process is going? We talked about efficient and effective.

What objective measures are you using that allows the management to come to the conclusion that, yes, this is following the right path?

MR. VIRGILIO: Let me start off and then let Dan add in.

One of the improvements that we have done as far as project management is concerned is for every site now we have got our status summaries and we have got GANT charts. So we have laid out a plan for how we are going to bring these sites to closure.

If you think about it from the strategic plan point of view, we have got measures in the strategic plan around effectiveness, efficiency and quality. That cascades down to our operating plants where we try to actually quantify that. We look at things like timeliness.

We also have tools like the program assessment rating tool that I had spoke of earlier, where we step back independently and objectively and look at how is the program operating, where are we doing well, where could there be some improvements.

What we don't have today and that we are looking forward to getting is a system that will actually allow us to track and analyze staff FTE expenditure on a site-by-site basis. This is something that we are working to develop today that I think would also add to what we know about timeliness,

which is one measure, and what we know about quality through assessments that we are doing like this PART assessment I just mentioned.

CHAIRMAN DIAZ: So you do have a -- sometimes difficult to quantify, but you do have objective measures that you put in play and you are now tracking to make sure that this process is on the right path.

MR. VIRGILIO: The most objective today is timeliness but I think where we are heading today is to understand what our FTE expenditures would be on each one of these sites.

MR. GILLEN: Our operation level operating plans get very detailed into the timeliness of all of our activities. We also monitor the number of sites completed as a quantitative measure. But the timeliness on all of our facilities, whether they be reactors or material sites, we track in that operating plan.

CHAIRMAN DIAZ: Because, you know, there is an issue of being responsive to the licensee's plans. And we want to make sure that we track the needs of the site. And that becomes a challenge at times.

This transfer from NRR to NMSS, you know, we all get -- well, I'm not going to comment what we thought about it at the time but we thought it was a good idea. Has it been a good idea, Mr. Virgilio?

MR. VIRGILIO: I think it has been a good idea, as Dan mentioned in his slide. It's hard to actually separate out what the contribution has been to improving efficiency and effectiveness in this area.

It goes hand in hand with the other things that we are doing as Dan

mentioned, the proactive engagement with the licensees, the expanded acceptance reviews, things that we are doing from the Region perspective in terms of side by side, confirmatory surveys, relying today more on the licensee's program and gaining confidence in their programs through quality assurance initiatives.

So it's a mix of all these things that I think are leading us to be more efficient and effective. It's hard to separate out any one of those factors and say how much do they contribute.

CHAIRMAN DIAZ: Would you then, a year from now, be able to tell us whether we need to transfer some more to your place?

MR. VIRGILIO: Well, we have actually been thinking about that and discussing it with NRR. You could think about the research and test reactors, but right now it's a small component of the program. I don't know whether the cost to do the transfer, you know, would outweigh the benefits you would gain. We have to look at that.

CHAIRMAN DIAZ: And, of course, I'm not saying that NRR was not doing a good job. But we are always trying to do a better job.

Let me just take a sideline here.

You know in SECY 03-0161 staff talks about Sequoyah Fuels site will no longer be tracked on the SDMP. That's the site that apparently has a couple of problems. We are always concerned about -- that was an understatement. We are always concerned that the visibility of the issue, that Sequoyah Fuels might get not lost but diminished if we are not putting it right



up front.

Do you have any concerns with that? Is that something that you want to comment on?

MR. VIRGILIO: I don't think we have lost sight of it.

CHAIRMAN DIAZ: I know you didn't lose sight of it.

MR. VIRGILIO: But as a general point, it may be that the SDMP program, which started out to try to focus on the significant sites, maybe it has outlived its usefulness at this point in time.

When I think about the more complicated sites, you have the SDMP sites which number about 26 or 27 today. Put if you think about the reactors in some of the other areas, you would get up to 100 sites very quickly. But the ones that we need to continue to focus our attention on out of those 300 that we closed per year, there's always that top 100 that we need to focus on. So Sequoyah is clearly one of them.

CHAIRMAN DIAZ: So you have a particular warm space in your heart for Sequoyah?

MR. VIRGILIO: Yes.

MR. GILLEN: We didn't mean to indicate in the paper that just because it is coming off the SDMP list it is forgotten. Obviously it has been transferred to the fuel cycle division which was my previous position. So I was sort of reluctant when it came to me. But then I changed job and went to the decommissioning branch and I was happy that they had passed it on to fuel cycle.

But it may come back. Who knows. We in NMSS are definitely involved in working that facility.

CHAIRMAN DIAZ: And the last question --

COMMISSIONER MERRIFIELD: Mr. Chairman, just playing off your focus here. As I mentioned I am already thinking about next year. It may be that we can focus a little more detail on Sequoyah, and on the flip side, maybe focus in a little bit more detail on Watertown, where we didn't focus today. But that might be another example where we can have some of the community folks come in and tell us things about what we have learned in that site.

CHAIRMAN DIAZ: I think we have a standard. We started a trend in here. I think it's a good trend. The decommissioning program evaluation -- and I hate to not correct but again going to the issue of communications, and Mr. Virgilio talk about the program becoming more risk based. And you know that's something that, in essence, we are trying to become more risk-informed and performance-based.

Of course, I have only said this, well, two or three times in the past.

Do you have some time for risk-informed, performance-based, Marty? I have got this afternoon free.

I'm sorry. I'm kidding you.

But fundamentally, you talk about the direction. And I think the Commission is on record on our interest in going to a more risk-informed

and performance-based program. You talk about risk-based but I want you to talk about risk-informed and performance-based.

How are we doing?

MR. VIRGILIO: I think that the recommendations that we have before the Commission today and the LTR analysis will take us a long ways. For example, looking at more realistic scenarios around decommissioning, being really and truly, I think, less conservative -- I think today we have a very conservative approach. Being more realistic about the scenarios, I think is a start to being more risk-informed in this process and performance-based.

CHAIRMAN DIAZ: He got it.

MR. VIRGILIO: Slow learner.

MR. GILLEN: We also, in our consolidated guidance that I mentioned, there are chapters in there that risk rank sites and define a graded approach to decommissioning that are based on sites and the risk involved in those sites.

We also, as I mentioned earlier, took an action, Ron was probably involved with, revising some of our inspection procedures around a risk-informed approach.

CHAIRMAN DIAZ: Eventually, I think so many sites will be decommissioned. There will be decisions that look right now that are, you know, obvious. But it might not be so obvious to you, tearing down a concrete wall that is contaminated or you just take the surface contamination and let it be. You know, those issues that essentially go into our main

function, which is radiological protection of the public and the workers will come into play. And that's part of risk-informed and performance-based. Those are issues that I think should be consistently looked at in these programs as we progress.

And with that, Commissioner McGaffigan?

COMMISSIONER McGAFFIGAN: Thank you, Mr. Chairman. I'm going to follow up briefly on a couple of the Chairman's questions and then go to a couple of my own.

Sequoyah, whether it's in the SDMP or not in the SDMP, I expect that it's going to be included in this annual report because we need to look at all the complex sites. I think Marty is right that maybe SDMP isn't the right term. You know, complex decommissioning list might be the right term and then we have a list of complex decommissioning sites.

But the issue comes to mind, are there other uranium recovery sites in decommissioning at the current time in the fuel cycle facilities that are complex that require a lot of resources?

MR. GILLEN: The fuel cycle facilities as they turn into decommissioning come over to our branch. Some of the sites are doing partial decommissionings. We are involved working with the fuel cycle division on those sites.

Uranium recovery is a little bit separate. All of those mills, for the most part, except for one are in a decommissioning mode. But the uranium recovery section and the fuel cycle facilities branch is handling those

facilities.

COMMISSIONER McGAFFIGAN: Just in passing, are there any significant issues that are arising in the uranium recovery decommissionings?

MR. GILLEN: Probably the only issue is ground water cleanup. That's probably the most.

COMMISSIONER McGAFFIGAN: It's probably an issue everywhere with the mills.

Tell me again why is Sequoyah being transferred to the uranium processing section?

MR. GILLEN: Because we defined it as a site that had with 11.e.2 by-product materials.

COMMISSIONER McGAFFIGAN: But it also has other material. A lot of the material is 11.e.2 but looking at your write-up from the SECY paper on decommissioning, their total assets for decommissioning are currently \$6.15 million. Your guesstimate as to what unrestricted cleanup would cost is \$87 million. So there's a slight gap there.

Now, with the 11.e.2 approach that cost could be reduced. But my recollection was the \$6.15 million wouldn't even cover clean up, even with that change, of the rest of the site that isn't 11.e.2 materials. So there's -- it's a very complex situation.

And I think we need to get continuing reporting on it in the decommissioning context. That would be my view. I know that I'm probably

getting the lawyers worried. This is an open session.

MS. CYR: It's litigation.

COMMISSIONER McGAFFIGAN: I understand litigation. I'm not trying to touch litigation at all. This is a very complex site. Whether it's an SDMP or not, it is in active decommissioning. Maybe this annual report should be the status of the active decommissioning program or something -- or the status of the decommissioning program with particular emphasis on active sites and we catch everything that's active and everything that's complex. There could be a gap there at the current time that I would like to see closed.

Marty, again following up Chairman Diaz, I'm trying to understand why Dresden 1 and TMI 2 were transferred to you guys -- they both have NRR involvement -- and IP 1 and Millstone 1 weren't.

There wasn't a consistency there. Some sites that have NRR residents present and all that were transferred to you, mainly Dresden 1 and TMI 2. Some sites were not, IP 1 and Millstone 1.

And you, in passing, gave an answer or Dan gave an answer. Could you explain that again?

MR. VIRGILIO: One of the factors we considered was the stakeholder involvement and who was engaged and whether the disruption of that engagement might lead to more inefficient and ineffective interactions with the licensee.

So, in both of those two sites, in Millstone and Indian Point that

was one of the factors.

Were there others as well, Dan?

MR. GILLEN: Not that I'm aware.

COMMISSIONER McGAFFIGAN: It strikes me at some point rational public policy is that all of those -- I mean, IP 1, there's not that much happening. And Millstone 1, there's not that much happening either, is there?

MR. GILLEN: Commissioner, it really had to do with what else was going on at the site. As you recall, Millstone 1 had an issue with two missing fuel pins. And Indian Point has significant emergency preparedness and other issues because of the location close to New York City.

COMMISSIONER McGAFFIGAN: But at Indian Point 1 the fuel has been cooling for two decades or something.

MR. GILLEN: That's true. But we looked at the site as a whole. And we said what's best for the stakeholders and the public in the area in a continued NRC context. We said it just doesn't make sense to move them at this time.

COMMISSIONER McGAFFIGAN: Okay. At some point, these become anachronisms within NRR space. And I think it would do well to think about moving them.

Let me get to a couple of other questions, several other questions.

Marty, I think you mentioned the Oxford visit of some of the

section chiefs. Marty, you are going to meet with the French later this month and you are going to visit a decommissioning, an active decommissioning site and have some discussions with them about their decommissioning program.

Do they have decommissioning criteria yet? I mean, do they have a rule like we do, the license termination rule? Or is that part of your purpose in going -- to understand what criteria they are using?

MR. VIRGILIO: That is part of the purpose of actually going. I mean, that issue among others.

COMMISSIONER McGAFFIGAN: I will be interested in your report on that.

One site that we are going to hear from later that also is going to trigger in a trivial way, I believe, the EPA/NRC MOU is the Saxton site. There's a slight excess of cesium which will go away as it decays and the slight excess of europium 152 that also will go away because it has a 13-year half life or so. Neither of them affect that that site is well within the 25 millirem per year unrestricted release criterion.

I see on these tables that you hope to terminate that license in 2003. And you have three months left. When is that letter going to get ready to go over to EPA for this hopefully very brief consultation with them?

MR. GILLEN: A couple of the first examples of the letters are very close to coming to you in a Commission paper.

COMMISSIONER McGAFFIGAN: I would urge you to get on



with it. I think this should be very straightforward.

If the EPA consultation triggers even the slightest delay here, it will raise some concerns on my part about the MOU. But I hope that this will be very straightforward and that that letter can go relatively quickly.

The issue of what is happening to some of these reactors that are in SAFSTOR, I just would add to what Commissioner Merrifield said during your presentation. Humboldt Bay, Dresden 1, there is significant activity in terms of stuff getting stuck into ISFSIs. In fact, Dresden has completed getting everything into the ISFSI. Humboldt Bay is going to be applying for an ISFSI license.

And then the one I mentioned, La Crosse, every time there's an Energy Bill, there's a provision that the Wisconsin senators, I think, succeed in getting put in that calls for a demonstration project with the La Crosse reactor to move things along. And I hope you all are aware of that because I assume that that could become quite active if that provision becomes enacted.

DR. PAPERIELLO: I'm watching it. I have seen that.

COMMISSIONER McGAFFIGAN: It's been in an Energy Bill since the late '90's. And it should -- and I assume that the licensee is urging the Senators to get the reactor that special status. But that -- just for your planning purpose, I think you need to be aware that that could become a large issue.

Probably the last question I have bears -- I'm not sure I have

the right people at the table to answer it -- but are we now granting exemptions to decommissioning reactors? We sort of put them into suspension after NUREG-1738 was put out for a while. And you guys wrote a paper and I think you have written a paper since that says we think we are ready to start granting exemptions again.

There are exemptions, for example, on insurance. And my recollection this summer when we were dealing with Price Anderson and the rule on Price Anderson, that we had to propagate in order to do the five-year update on inflation protection, is that there is a reactor or two that is in decommissioning, whose fuel has been cooled at least five years because all the reactors have been cooling for at least five years, all the recent reactors and yet was still paying full insurance premiums as if it were an active reactor.

As I say, I'm wondering whether we are back in business in terms of granting the exemptions that prior to NUREG-1738 we granted pretty automatically?

DR. TRAVERS: Let me get you an answer. I think the answer is no. But I want to make sure. I don't think we have begun to issue exemptions.

COMMISSIONER McGAFFIGAN: Have we told people we are open for business to issue those exemptions?

DR. TRAVERS: Let me get back to you on that.

COMMISSIONER McGAFFIGAN: Thank you very much,

Mr. Chairman?

CHAIRMAN DIAZ: Commissioner Merrifield?

COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman. I will try and move it along a little bit.

As you know, I had a number of interactions with Carol Browner years back. While there were things that she and I didn't necessarily agree on, one of the things that she talked about during her tenure as Administrator of the Environmental Protection Agency was the notion that cleanup should be faster, better and less expensive. I agreed with that thought that she put out there. I think that the things that have been talked about today do take action with getting these sites to resolution in a quicker period of time.

I would note that in that regard -- and I may be wrong on this, but it would appear to me that the direction we are going more recently is that there is more of an indifference to actually getting the sites moved into remediation quicker than before.

In prior years, I think there was more of a notion that you would put something in SAFSTOR and let it, you know, sort of hang out for a long period of time. But with places like San Onofre and Maine Yankee and others, the notion is now let's deal with that sooner. Unless you are going to correct me on that --

MR. GILLEN: No. I think it depends on the site specifics. There are reasons for choosing either option, depending upon what site and

the circumstances.

COMMISSIONER MERRIFIELD: Right. But where it would make sense it is certainly something we shouldn't discourage.

Two questions and then more of a comment. Are there any areas that you can identify where further action by the Commission would be useful in accelerating the ability to manage this program and get us to a resolution at these sites?

MR. VIRGILIO: One of the issues that we have now is the analysis that we provided on the license termination rule. I know some of you have voted -- we would really like the SRM and to be able to proceed on some of those issues.

COMMISSIONER MERRIFIELD: A similar question. How would you characterize or what would you say are some of the key issues that are hindering the decommissioning of the sites that we have under our purview?

MR. VIRGILIO: Let me just take a chop at it and then I will turn it over to Dan.

We have got a number of challenges. One is I think there's a very dynamic and uncertain external environment. I think that just one example of waste disposal being one of those issues.

We have got licensees with limited resources. And there really aren't a lot of incentives to go to your question. I step back and try to say, is there something that we could do differently to help incentivize, to use a DOE

term, licensees to start into this process sooner, particularly where they may not have the resources or they may be making choiceful decisions about how they are spending their resources and may not choose to move forward to decommissioning.

We have got a limited set of licensees that really fully understand these issues. And their capabilities and experience are limited. And I think that's also frustrating our progress in this area.

It's a challenge. And it's something we have to deal with. But we have stakeholder concerns. That's something we have to address. We can't move forward without addressing the stakeholder concerns.

So those, I think, are some of challenges that we struggle with and try to find solutions for around this program.

COMMISSIONER MERRIFIELD: On the final one of those I think -- you know, this is sort of a push me, pull you atmosphere to this. I think as we generate more success and have more success behind us in the decommissioning, that may help to ameliorate some of the concerns moving forward with the stakeholder community.

I think another example of that perhaps may be -- obviously we had a lot of issues that went around with the decommissioning up at Maine Yankee. But I did have an opportunity to go up there this past year. A lot of success and a lot of work being done and accomplishment there. They have a major effort, I think. The first time we have had an effort to completely take down a major containment facility, which was a technical struggle that they

have been going through.

So, again, another one where down the line we may want to look back at those efforts and see where we can learn some lessons as well.

The final point I want to make before turning to the next panel, Mr. Chairman, relates -- Marty and Carl will know where I'm going on this. That relates to the recent report that we had up from the staff, SECY-03-0161.

I would first start by saying I think this report is one that I paid particular attention to since the time I came here. The improvement in our ability to keep track of these sites and have a greater consistency in the way that we are reviewing them I think has been excellent. I really do want to compliment the staff on that.

I would say, however -- one of the Chairman's favorite terms -- my sense is that I think we can do a little better. When we had our meeting last year -- in fact, it was October 1st of last year to talk about decommissioning activities -- I did, in fact, reference the previous year's document and I talked about how I felt we need to have a greater degree of consistency within the document to allow it to have a clearer, sharper focus for the Commission and for our stakeholders to utilize.

The SRM coming out of that meeting also recognized that in the future submissions from the staff should present the information on the status of the various sites undergoing decommissioning in a clearer more

standardized format. I think the staff got about 90 percent of the way there.

There are a couple of elements in this SECY which I think could be bolstered up a little bit to make it further consistent. Appendix 5 and 6 make some mentions just to the fact that sites are in decommissioning. I think having a greater degree of consistency in those with the write-ups, brief site status summary would enliven and enrich the value of this document.

And in my own eyes -- and I mentioned this, I think, to the Chairman and others as well. I foresee that we have a document that we would be able to use, whether it's on the Hill or to our stakeholders, and to really demonstrate that we have a full handle around the activities we have underway in decommissioning.

Like I said, we are almost there but not quite. And what I would like to raise for the Commissioners -- and we can discuss this afterwards -- I have spoken to Marty about what would it take us to get there. And it's, like everything else, a resource issue.

Marty tells me, I think to get the document I envision it would require something along the lines of .18 FTE. I would like to engage with the Chairman. We can dialogue a little bit about resource allocation around here.

But I do think this is one, in this calendar year, I would like to see us be able to get this wrapped up and get a good document that we can move forward with. Because I think it will, in the Chairman's spirit of having

appropriate communications, will provide a clear communications document for us to demonstrate that we have got a handle about the program and we know where we are going. That's more of a comment.

I don't want to take away if Marty wants to comment on that. But I don't need a response.

COMMISSIONER McGAFFIGAN: Mr. Chairman, I just would add, to be consistent with what I said earlier, I did notice when I went back through the paper as I'm sitting here that the uranium recovery facilities are sort of mentioned on pages 11 and 12 but there's not a detailed sheet at the back for these facilities like there are for the other facilities.

My fear was with Shieldaloy that we would go the same way that we would end up having sort of a summary at the front under uranium recovery facility.

It looks like there's some -- based on the pages 10 and 11 of the paper, there's some very significant activity and accomplishments occurring in the uranium recovery area and I do think you should highlight them in sort of single pages at the back in addition to whatever you do in the front.

CHAIRMAN DIAZ: All right. Thank you very much. I'm glad to know that Marty is taking to two significant figures when he talks about --

COMMISSIONER MERRIFIELD: It demonstrates the high quality management that Marty is bringing NMSS.

CHAIRMAN DIAZ: I'm sorry, Marty.



All right. Thank you very much.

Will the next panel come to the table, please.

COMMISSIONER MERRIFIELD: While they are reassembling. From a technical standpoint, I am getting a little feedback -- I can hear a little feedback from Commissioner McGaffigan's microphone. So if our technicians can adjust that sound a little bit, I think it might avoid some of that.

CHAIRMAN DIAZ: Good morning. First I want to thank you on behalf of the Commission for joining us today. We really believe that this opportunity to share information with our licensees in a public meeting is a vital part of the way we need to do business. And so we appreciate your granting us your time which we know is busy. We look forward to, you know, an interesting discussion.

Let's see, I think I can recognize everybody. Kenneth Heider from Connecticut Yankee. And I guess you all work with Haddam Neck. Mr. van Noordennen, you are with Haddam Neck and Connecticut Yankee also.

And, Gary, I guess you preside over those facilities one way or another.

MR. LEIDICH: Yes, sir.

CHAIRMAN DIAZ: And we have Mr. Kuehn from Saxton. And Mr. Roger Granlund, which we appreciate to come over and give us your perspective for how the stakeholders look at this.

With that, I don't know who is going to start but unless we have any comments --

COMMISSIONER MERRIFIELD: Mr. Chairman, I do want to say, Mr. Granlund, we had endeavored to try to get a representative of the community. And I know there were a lot of difficulties about scheduling which unfortunately they couldn't make it.

But I would want to particularly note that in his role he will be representing a community view. And I think that's important to have here. I just wanted to make that note.

CHAIRMAN DIAZ: Thank you.

So I know that Mr. Heider had a presentation but, Gary, did you want to make any opening comments?

MR. LEIDICH: No. We can let Mr. Heider go first and then we will follow from there. That's fine.

MR. HEIDER: As for clarity here -- actually, Jerry and I are with Connecticut Yankee and Gary is with Saxton.

CHAIRMAN DIAZ: I'm sorry.

MR. HEIDER: With that as an introduction and representing Connecticut Yankee -- although that's not my calling from the Boston/New York series --

COMMISSIONER McGAFFIGAN: You need to pull that microphone just a little closer.

MR. HEIDER: Today I would like to focus my comments on

license termination planning in three areas, the approval process, the role of public communication in that approval process, and then license termination. And then finally the involvement of other regulatory agencies in our work activities at Connecticut Yankee.

But before I move on to that, I would like to just briefly give you an update on where we are. At Connecticut Yankee we are focusing on four different activities right now. The first is the removal and shipment of the reactor vessel from the plant. By the end of the year the reactor will be in South Carolina at its disposal facility.

We are preparing for a fuel transfer to dry cast storage, which is a very important activity that is associated with decommissioning to be to allow us to complete the decommissioning of our facility.

And the third physical activity is removal of contaminated soil that's effecting the ground water on site. It's a very important activity as well because we need to be able to take the soil out that's effecting the ground water such that the ground water has time to decrease in concentration of the strontium 90 that's contaminating the ground water and that will allow us to terminate the license in the future.

The fourth activity that we are involved in is planning and scheduling activities, the remaining decommissioning activities on site.

So we can move to page 3 of the presentation. As was discussed earlier, the license termination process or approval process for Connecticut Yankee was a long process. Actually it was a quite long

process at Connecticut Yankee. It took 28 months to move through the process from original submittal of the license termination plan until the approval by the NRC.

The ASLB process, as a side note, is also going on quite long. It's been going on over two and a half years associated with our license termination plan.

The major reason for the long approval process is that we didn't meet the NRC's expectation on the quality of the license termination plan that was submitted. We didn't have the information that was sufficient in order for the NRC to make their ultimate approval of the license termination plan. And as a result of that, we had a very prolonged RAI process associated with the license termination plan, despite the pre-application meetings that we had and the adequacy review that was completed for the LTP.

As was noted to you earlier today, improvements were made along the way. And those improvements focused on really communications that we had with the NRC. We had much more frequent meetings.

And I think as a result of those we had very noticeable improvement in the pace and the quality of the review from both our perspective as well as from the NRC's perspective. We were able to get the license termination plan approved in November of last year.

I think the lessons that we have learned with that -- and we have a sister plant in Rowe which you heard of also earlier today. We will be

submitting our license termination plan a little later this year.

Incorporating those lessons learned into the pre-submittal process which we are going through right now, a pre-submittal process, and actually going through the review process, we hope to be able to reduce that time to about a year. That's, I think, is a goal of ours. It's also a goal of the staff to be able achieve the review within that time fame. And we certainly think that that's doable.

On page 4, I would like to talk briefly about communications. Communications with the public is essential. Not only from a license termination standpoint but also as we see it, the public is the ultimate customer of what we are all doing here.

We have to be able to turn over the plant to them. And they have to be sufficiently confident in what we have done to be able to accept our work and be able to take the site as an unrestricted site, one that they can then use again in the future. Be that for future power production, as conservation land or anything in between those two in terms of the ultimate use of the property.

And I think the NRC has made a very good effort in this area in terms of license termination planning. Throughout the process they have been very active in attending public meetings. We have a community advisory board which we have set up for the plant. And once a quarter the Region comes to the meetings and presents the inspection reports. And more importantly than that, they also are there to answer any questions that

the public may have associated with the decommissioning of the plant.

And from what I understand from our discussions with the public as well as from the region staff and also the staff here at headquarters, it's not unusual for them to get phone calls from our various stakeholders. From my feedback they have been very responsive in answering questions from the public.

And I think that this goes a long ways to really bridging that gap between a license facility where the public had very restricted access to the facility to one where they ultimately will gain restricted access to the facility.

In the final area I think the highlight there is that the meetings that we have had on license termination planning have been open to the public. And I think special efforts have been made to assure that if the meetings are here in Washington that there's a communication line back to Connecticut, that people can actually listen in on the meetings and be able to participate in them and at least hear what's going on behind the veil, if you will.

So from that standpoint, I think we have made a lot of strides over the past three or four years in terms of involving the public in our overall activities. And it has paid dividends in terms of what we can see already in terms of their acceptance of what we are doing on site.

The final part of my presentation that I want to just highlight on is the fact that the termination of our NRC license is really only our first step in terms of being able to negotiate the labyrinth of regulations that are

associated with decommissioning a nuclear facility.

And, in fact, in the final analysis, the NRC criteria may be the easiest to meet. We have the Department of Environmental Protection in Connecticut --

COMMISSIONER MERRIFIELD: Easiest or most disciplined?

There's a difference.

MR. HEIDER: Certainly the most disciplined.

The Department of Environmental Protection has two standards in Connecticut that they will be applying to us in general. One is 19 millirem per year which is essentially the same as 25 millirem per year. At least the process is the same, which is a little bit of a haircut on the dose rate, if you will, in terms of being able to achieve it.

The second is their standard remediation regulations. They apply those generally to protect the ground water in this state.

What that drives us to is background, if achievable. And if that's technically impossible or impractical to be able to do, then to move that up to a drinking water standard.

So realistically with Connecticut Yankee, the ground water on site will, by the time we get through the property transfer portion of our decommissioning activities, have to achieve a drinking water standard for radio nuclides in ground water, which if you take our dose modeling from the license termination plan, it's probably on the order of one millirem per year when you use the concentration limits that are in the drinking water standards

applied with the new dose factors that you might calculate using our modeling for license termination plan.

In addition to the DEP, we also have the EPA which oversees our decommissioning activities or at least is very involved in our decommissioning activities in two areas. I'm using decommissioning as sort of a broad term now in terms of getting rid of the plant completely.

The EPA is involved in our radioactive program from a nonradiological standpoint. But in addition to looking at the nonradiological component of that, they will also be doing a combined risk assessment, looking at both radiological and nonradiological residual materials remaining on site and being able to make a determination as to whether those levels are acceptable when we complete our decommissioning activities.

And the second area, of course, is the memorandum of understanding between the NRC and the EPA. And as you heard again this morning, because of the ground water contamination at Connecticut Yankee, will be subject of discussion between the NRC and the EPA on that. Our read of the EPA at this point is that they are probably going to be watching how the DEP interacts with us and their level of comfort with where the DEP is moving us relative to ultimately getting the ground water before property transfer will inform their dialogue with the NRC in that area. But that's just a guess at this point.

I guess in summary what I would like to say is that I think we all have an opportunity now to continue to improve the decommissioning



process. We have a generation of plants right now that are going through the process. And then hopefully, quite a ways in the future another generation that will be going through the process.

Now is the time to get these lessons learned, get them incorporated into the process and really turn over a process that works well to the future plants so that the legacy we leave in the future from our plants is a good one, one that we can all be proud of. Thank you.

CHAIRMAN DIAZ: Thank you.

Comments before we --

MR. KUEHN: No. Just to note I'm also the regulatory affairs manager for Yankee Atomic for Yankee Rowe. So I'm heavily involved in applying those lessons learned from Connecticut Yankee into a Yankee Rowe LTP. And those are going quite well at this time.

CHAIRMAN DIAZ: Thank you. So we move to Saxton. Which way would you like to proceed?

MR. LEIDICH: Thank you, Chairman. I appreciate the opportunity to be here this morning to discuss Saxton.

Saxton is part of the FirstEnergy Nuclear Operating Company's organization as a result of the GPU merger which occurred a couple of years ago. We also have responsibility for Unit 2 at Three Mile Island. So I have the oversight responsibility for those activities.

We are here particularly today to talk about community involvement, community support, and the need for that. We really would like

to showcase our activities at Saxton. We think as the decommissioning process goes forward, really, in the industry to leverage the community's capability to become involved in it.

As Ken mentioned, they are the ultimate customer and the process here is very important and critical to your success, and our success.

Also encouraged by the earlier comments about improving the process. Anytime anybody goes through an exercise like this as one of the first few -- and, of course, Saxton is one of the early decommissioning facilities -- it's a learning curve. It's been a difficult learning curve for us at Saxton.

And to get the bugs out of that for those in the future it's very important. We do look forward to license termination probably in '04, notwithstanding the earlier comments. But I think we will be the first to achieve that at least in terms of our previously operating reactor facility.

So with that I would like to introduce Joe Kuehn. Joe is 23 years with GPU and has the responsibility for our Saxton project and from a FirstEnergy standpoint, we certainly support Joe's efforts. He has been actively involved in Saxton and will present to you our community outreach program as well as other comments.

Joe.

MR. KUEHN: Thank you, Gary.

Mr. Chairman, Commissioners, I appreciate the opportunity to

talk about our interface with the public at Saxton. It has been unique in several aspects.

And I think I have to admit up front that we have maybe an unfair advantage in that my staff of 15 that started in 1995 on this project are all TMI 2 people, for the most part, who had a lot of experience in dealing with the public post accident TMI. So we learned a hard lesson there and carried much of that over into the Saxton project, i.e., the need to keep the public informed, to work with the public so they understood what we were doing at Saxton.

And when we approached the project in '95, there were some hard feelings in this area. And I would attributed the majority of those hard feelings to the fact that we the company, at that time GPU, had changed leaders so many times on the Saxton project that they didn't know who was coming through the door next. When I arrived they said you are number five, who's coming next, that kind of thing.

But we stayed stable. And that's important and a lesson learned, I think, on the project when you are dealing with the public.

We also had another advantage in that immediately I was assigned a public relations person full-time on the project. And she happened to be from the local area and had a real strong insight as to who was who in the area. The county commissioners, knew many of those people personally. So it was a good interface between the project and the community from the get-go and stayed with us throughout that.

We went after a diverse membership on the citizen's task force. We realized we had to put a citizen's task force in place. And yet we approached that with the idea that we wanted the citizens to dictate what kind of a task force that wanted, who they wanted to be on it, and we helped them find the people and alternates for the task force that would become members.

And there were some fifteen formed originally. From registered nurses to schoolteachers, to housewives. We had a real diverse membership on that committee. Very important that we got to deal with all aspects of the community.

We originally met monthly and we picked a location to meet which was a neutral location for the citizenry. The firehouse in Saxton is where we would go. They were more comfortable there. It was obvious they didn't want to come on site originally. Many of them wouldn't come on site originally.

Today they have all toured the containment vessel itself where the reactor was. So we have come a long way to getting them comfortable with the process and with us protecting them, the public, and our workers.

And often you will hear the chairman of our task force say, I have gone on site and watched how carefully they watch their own workers. I know they are going to be careful of how they are treating us the public, too, because they do care about safety and those kinds of things on site.

Another big plus for us was our project manager and project

inspector, Mr. Dragoun, who was our inspector, and Al Adams, our project manager, had been with the project, stable for the duration since '95. I appreciate the fact that that didn't change in the middle of the stream for us. They are familiar to the citizenry also.

When we have a citizen's task force meeting, and that's a monthly thing typically, or if we are not doing anything very new maybe every other month, I would inform the task force that the NRC members were available to come to the meeting and let Mr. Adams and Mr. Dragoun know when the meeting would be.

And if they had scheduled an inspection at the same time, they would make it a effort to get to the meeting. That was an evening, 7 o'clock kind of thing on their own time. They did that several times. And it was very much appreciated by the citizens. Their opportunity to ask the NRC questions as well as me. So that's another thing that helped us a lot in our interface.

The citizens were also afforded threw our efforts some kind of unique opportunities. For example, we had rad worker training as you have at TMI or any other operating plant. Rad worker training applies at a decommissioning plant.

We actually made that available to the task force members to attend that training and to learn some basic radiological control things so that they would better understand what we were doing and could ask the questions they wanted to ask of what we were doing on site radiologically.

There was some history originally which they brought with them, kind of baggage, if you will, uncertainties and stories and rumors about what had happened during the operating days, '62 to '72 at Saxton.

One of the first things we did as a staff is went out and investigated those incidents that they were concerned about which were radioactive releases, for example, during operating days. And they had the stories about those releases, as they will, over the years and told over and over and kind of skewed out of proportion.

So we went and investigated and determined in today's regulations what those releases were and what they really meant to the public and to the workers at the time. And they appreciated that effort, I think. So that we cleared those kinds of things up for them and started on a level field with where we were going.

We held open houses occasionally. For example, there was an antique car show in the area at one time. We called the organizers of that and asked them to come on site with the cars, to have the cars looked at there and people mill around. We took that opportunity to tour people through the containment at the site so that they could see actually what we were doing inside that big, scary dome that we had on site that they have never been near in the years that we have had it there.

So that was a good opportunity, too, to take the mystique away and to get them comfortable with what we were doing.

Educational opportunities. Myself and my radiation safety

officer who is here today and other members of my staff became involved with the citizens outside the site activities. For example, we went to the high school and gave lectures on radiation protection. We have a strong background in radiation protection. We did some of that.

We were able to encourage the physics teacher at the local high school to be a member of the citizen's task force. He in turn invited his students to attend the task force meetings for extra credit. All the students showed up. Great idea. And got them interested in the process also.

We also had a contest early on -- I think it was the '96 time frame. We wanted a logo for the Saxton project. And we went to the local grade school and asked if they would be interested in having a contest where their art students designed our logo and we would pick a winner and celebrate that. We did that with the local grade school. So that too helped.

Again, close knitting with the community has served us well throughout the project.

We do formally, a couple times a year, go to each -- there are two counties that the Saxton site lies on. Huntington County and Bedford County.

We go to the county commissioners meetings and I make a presentation of status of the project to them, answer their questions that they might have.

One in particular effort that I think stands out and really helped us a lot, the big thing for the Saxton citizens was the reactor vessel itself and

what are you going to do with that thing. I had suggestions early from one of the old-timers on the committee, why don't you just dig a hole and bury it on site. I have been here for 70 years and it's always the same. It never changes. Just put it right there and don't move it through our community. Don't do anything with it.

They were afraid for us to address, to touch, to move, to do anything with that vessel. Recognizing that, we arranged on the route for the reactor vessel to be transported to the rail head and to go to Barnwell for burial, we arranged citizen meetings on several locations along that route and advertised ahead and invited the citizens to come.

I and my staff talked to them about what was on that big truck that was coming through, what was that reactor vessel, what did it mean from a health challenge, if anything, and met with several of the communities along the way. Let them ask questions, make suggestions if they wanted to.

For example, school was let out so the students could line the streets and watch the vessel go by on that big transporter that we put it on.

So those kinds of efforts have served us well, I think, over the long run.

We have also made an effort to hire local people. The local union hall, if we need an electrician or a laborer or a pipe fitter, we get those people out of the local union hall. That's not always easy to do. There's not a lot of availability up in that remote Saxton area of people with the kinds of crafts you need. But we make a real effort to try to find them first there. And



we have been successful in doing that.

Services on site, we don't have any sanitary facilities at all.

We have to bring in port-A-potties and those kinds of things. We use a local company to do that. We buy everything we can locally to the degree we are able to do that. That's helped us a lot.

We have also interfaced with local hospitals and ambulance services, have trained the local hospital to be able to receive an injured contaminated, radioactively-contaminated victim should we have that happen. That hospital had never had any kind of training like that. We also equipped an emergency response kit for them so that if we showed up with the contaminated individual in the ambulance, they would be ready to, with our help, handle the contamination aspect of the injury and have the equipment there to do that with. So we did that.

We also trained ambulance crews locally and fire crews to respond to the site should we have that kind of a need.

Lastly, sitting to my left is Mr. Rodger Granlund. As you know, Rodger is our independent inspector on site and he's going to talk about the details of his inspection program.

I just want to reinforce with you that one of the key issues for us was that interface, that independent interface that Rodger provides the citizen's task force. He answers their questions, be they be radiological or operational about the decommissioning. They have a trust in him. He sits next to them on the panel and is a source for them to be able to understand

better what we are doing and not hear it from the company but hear it from an independent source like Rodger.

Again, lessons learned. I think the number one that I would come away with is the stable staff if you are able to keep it in place to complete the decommissioning that develops a relationship with the citizens in the area. It serves you well throughout the process and is very important.

CHAIRMAN DIAZ: Thank you.

Mr. Granlund, glad to have you, sir.

MR. GRANLUND: Thank you.

Can I have the first slide, please.

By way of introduction I'm a health physicist and served as the radiation safety officer for Penn State from 1960 through 1997.

As part of that I participated in a number of public education programs that put on programs throughout the state. Also served on a state committee on waste disposal.

And I think that that exposure is what made me a candidate for the independent inspector position.

By way of background -- the second slide -- the independent inspection program really came about as a result of Public Utility Commission hearings. When they started to decommission Saxton, they had to go to the Public Utility Commission for some review of the trust fund use and also for some increases.

And there were complainants, in particular one Ernest Fuller,

who brought forth the request that there be an independent inspector appointed for the decommission activities. And that was first proposed in 1987.

It was turned down by the PUC not because they didn't think it was a good idea, but they said that the proposal just wasn't detailed enough. So that was tabled and came back again in 1994-95, when there were further hearings on a rate increase for Penilac, which is one of the companies that's part of the Saxton Corporation.

They came back with a more detailed proposal this time. And they requested a full-time inspector be available anytime there was work being done on site.

They also wanted a consultant hired to review the decommissioning plan and a consultant to prepare a final report that would give them -- to look at the site after the termination of the license. They wanted the consultant and the inspector to be employees of the Bedford County.

And the PUC did not act for or against that. GPU Nuclear or Penilac came into the hearings with their proposal which was to hire a part-time inspector which would be provided by a university. And they would fund it through an unrestricted grant to the university. And specifically named me and Penn State University in that.

The PUC came back and indicated that they didn't want to make a decision one way or the other but recommended that GPU Nuclear

meet with the Bedford County Commissioners and come up with something that was agreeable to them and to the local citizen's task force. Which they did.

And they subsequently agreed on the part-time inspector from Penn State University.

GPU Nuclear then went with a contract proposal -- slide three, please.

-- to Penn State. And we prepared a proposal. And that was accepted. And initially, a 30-month contract was issued in January of '96 officially starting the program. Although actually I had been attending meetings and talking with people for probably six months or more before that.

The idea was that that was going to cover until the end of the decommissioning. Well, I don't have to tell you that decommissioning projects usually don't come out on time. So there was another 30-month extension.

And then after that, another two years extension through December '02.

In the meantime, I had retired from Penn State in '97 but continued on as -- Penn State has what they call an emergency rehire where you can go back and work on specific projects you had been involved in. That continued until July of 2002 when they said, well, this has really gone on too long. And so I was unable to work under that.

But in order to continue as we had done with the same people, the Bedford County Commissioners and the citizen's task force agreed that I could continue as a direct contractor to GPU Nuclear and now FirstEnergy on that project. But it was done with their permission and would not have been satisfactory to start out initially that way.

The duties of the inspector as laid out in the initial proposal laid these duties out as essentially pretty much unrestricted with a lot of freedom. It took a change of culture for GPU to do that. There was a lot of resistance on their part.

There was some resistant, I think, even on the part of the NRC because they didn't want somebody interfering with their inspections. So I met with both of those sides to explain how we were going to handle this thing.

But essentially, the basic requirements are that the inspector would conduct random, unannounced inspections, at least three per month when decommissioning activities are enforced. And I have always done more than those.

The inspector is to review and observe work in progress, look over plans, procedures, and records. And the site is to make all of those records available, make copies available if asked for.

One of the primary duties is to provide technical information to the community, that is, attend the task force meetings.

I also have an 800 telephone number. Although that has been

almost not used by the public. The main contact has been through the public meetings.

I had requested to put in there that the inspector would be available to train persons who might want to do their own monitoring. And I will talk a little bit later about that. We did have one person to accept that invitation.

The contract calls for the inspector to be invited to the readiness review committees for the major projects on the site and also to be invited to the oversight committee meetings.

The main reporting is through quarterly reports which are issued to the Bedford County Commissioners and copies given to the Saxton citizen's task force and also to GPU Nuclear. And that's been the backbone of the program.

GPU Nuclear's responsibilities are to provide draft copies of things like the decommissioning plan, their work schedule, provide unrestricted access to records, and a copy of any records that are requested.

And the inspector has unrestricted access to the Saxton facility. The inspector also has to go through the same requirements as any contractor or employee in terms of training, fitness for duty programs, those types of things.

If a problem is noticed that requires resolution, the inspector is to notify the Saxton site supervisor to see if that can be resolved. And that's

as far as it's ever had to go.

But if that would not resolve it, I would notify the Saxton program director, Mr. Keen. And if it's not resolved at that level, then I would provide a written documentation of the program or the problem to the Bedford County Commissioners, the PUC, and the Saxton citizen's task force and provide information to the NRC.

In summary, I think that there has been a positive response to the program. I have gotten positive response from the citizen's task force, from the Center County Commissioner or the Bedford County Commissioners and from GPU Nuclear on the quarterly reports as being detailed and giving them enough information to understand what's going on site.

I also, when I'm on site, normally carry a camera with me. And I take lots of photographs. So when we have the citizen's task force meetings, I put these out on the table and I think it helps a great deal and they appreciate it, being able to see what's going on inside the buildings. They have got tunnels and pits and all these other things that you normally don't see.

One of the other areas I mentioned before was that I had offered to train a person or persons to do monitoring. Typically that would be just off-site monitoring so that they could do their own checks.

We had one person, a retired truck driver, Charles Barker, who is a member of the task force committee and expressed an interest in

this. And after I had done some training for him, he started to help me with doing on-site monitoring. I do fence line monitoring on a weekly basis there. And actually took over that task. He went through the site access training and had unrestricted access.

So we had a member of the task force who also had access to the site, was out there actually making radiation measurements, talking to the workers and in particular, talking to the laborers, the union workers and the trade's people. So he knew what was going on and could relay that information back to the task force.

He continued that for a number of years. Unfortunately, he passed away about two years ago.

We have not had anybody fill that position.

But it was a very important part of the project.

There has been excellent cooperation from GPU on access to the site, access to meetings when I'm on site. I can walk into any of the meetings that are going on, sit and observe those, go about what I need or just request access to any of the restricted areas and get access to those.

I think I have been able to operate independently. I think operating through the university was a good move.

There was some opposition to this at first because Penn State had been one of the members of the consortium that originally operated the Saxton reactor.

And also I had been essentially chosen by GPU. There was



some resistance to that. But as one of the PUC judges commented, he also didn't feel that you could be completely independent if the County Commissioners had control because that would be essentially a one-sided control.

So I think once we got in operation and were able to start putting out the quarterly reports and making reports at the task force meeting, I think that resistance faded away on both sides there.

Some of the aids to acceptance of the Saxton project, I think one of the major ones was when the oversight committee invited the task force members to attend their meetings. And at that time the -- and they still do. The oversight committee handles TMI 2 and Saxton. And when we first started they also had Oyster Creek. And the meetings rotated around.

And for the -- I think it was a surprise for the task force members to go to these meetings and actually see that here are company people or a company committee -- not all company people -- the oversight committee that were actually showing that they were looking over their shoulder and they were pressing people to do things correctly. And if they felt there were any problems, they wanted them corrected.

I think that was a big plus in the community getting more confidence that things were being done as they expected them to be done.

The other thing -- and I think Joe has mentioned that and also with respect to the comments by Commissioner McGaffigan earlier why some of these are still under NRR, for example.

One of the things that I remember causing the most consternation of the local people when it came back that they were talking about transferring Saxton to NMSS and that we might lose the project manager, Al Adams and the inspector, Tom Dragoun. As Joe mentioned, these individuals are known by name to all the members of the task force. And I think that's a point that I would like to emphasize.

The decommissioning projects, I think, are going to continue to exceed the time of bureaucratic cycling within NRC. The changes in organization and so forth.

And the community sees these -- they don't see titles or bureaucratic organization charts. They see names and people. And if those change it reduces their confidence in the program.

Thank you.

CHAIRMAN DIAZ: Thank you very much, Mr. Granlund.

Let me just start a quick round of questioning here. First let me just make a comment. I need to have some technical fun once in a while.

Of course you are very aware of the importance of very detailed radiation mapping at these sites. And you know you do them before you get started. You do them in the middle and you do them at the end.

And of course the value of it -- I think there is an important public confidence issue that we don't play on which is the fact that, you know, we can map very, very, very well the distribution of remaining radioactivity in

these sites. And you know when you walk away from them, that detailed radiation mapping becomes, you know, an essential part of the process.

And I wonder if you can comment on, you know -- I know you have done extensive radiation mapping. But as you walk away there's going to be this record that we will have, you will have. Is that an issue that with the community has been discussed as a fact that you really will know -- and I'm sure you will know -- what's left behind and also, you know, what has been taken away?

MR. HEIDER: I think in our discussions with the community certainly mapping or any visual demonstration of where things are on site has been very helpful in terms of people better understanding things.

I think the concern of the community has not really been around whether we will know whether radioactivity is on site and what level it will be at. I think they have a reasonable level of confidence that with the degree of oversight that we have and the programs that we have shown them that we will be implementing that we will know where it is.

Their concern more centers around is 10, 20, 30, 100 years from now, will the standards change and where will the community be left if Connecticut Yankee goes out of business which is, you know, what we intend to do eventually once the fuel is taken care of and we complete all of our obligations.

So I think their concerns are not so much where it is on site and whether or not we will know where it is on site, it's is that level safe

enough and will it change through some new science that may occur in the future.

CHAIRMAN DIAZ: I see. And what have we done, what have you done to answer that concern?

MR. HEIDER: It's a very difficult concern to answer. And truly it's one that we are continuing to wrestle with in terms of taking out insurance policies that cover environmental risks going out to the future. That's certainly one way of doing it.

And the other thing that we have done is rather than shooting for the 25 millirem per year, we have backed that way down. We are actually shooting for around 10 millirem per year as our value. And also as we discussed with them, the ultimate process of decommissioning, we describe it not as a process where you are trying to be shave off successive layers of concrete to be able to hit a number, you either clean the surface or you don't clean the surface.

And I think they find some value in discussions like that because it's clear when they see the types of technology that we use, jackhammers and, you know, large surface removing equipment versus a nail file trying to clean the surface down to some number that we are trying to hit. Generally it's either clean or it's not clean. That's helpful.

CHAIRMAN DIAZ: You touched on a point that I think I'm interested in.

I can see why you would like to do less than the 25 millirem.

But what was the reason for the 19 millirem per year that the state --

MR. HEIDER: The State of the Connecticut performed their own calculation of risks associated with residual radioactivity and used slightly different modeling as they did that and came up with a more conservative value.

CHAIRMAN DIAZ: I see. So they did actually a model study and decided there was a difference between 19 millirem and 25 millirem?

MR. HEIDER: They certainly came up with a different number. I can't comment as to whether it was a significant difference.

CHAIRMAN DIAZ: I get concerned when we get into those small numbers and there's no significant public health and safety issue between those numbers.

MR. KUEHN: Mr. Chairman, if I may. At Saxton a little bit different, but we have a 4 millirem ground water limit which we put upon ourselves. It's not an NRC requirement, as you know. But we are also working toward that, along with our 25 millirem per year.

But from a ground water standpoint it's interesting. We had early on in the project requests from the public to monitor after license termination, what are you going to do for us to show that you really didn't leave anything behind and that it's still okay 10 years after you leave?

NRC has worked with us and we have worked hard to show the public how many ground water wells we have put in excess of what was there for operation. There were a few on the REMP program, the

radiological environmental monitoring program during operation. Now there are 30 something as a result of the decommissioning process.

So we are just showing the data from those wells to say there isn't anything here. When our license is terminated it's terminated because there is no longer any radiological hazard to the community or anybody on that site.

That's what we are working to do.

CHAIRMAN DIAZ: All right. Good. It's been mentioned a few times the MOU with EPA and the issues of ground water.

For the record, because there might be people that are watching this that don't really know what we are talking about. Do you mind going a little bit just briefly into what issues you need to resolve with the ground water so that EPA when it gets involved because of the MOU with NRC in these issues, will be able to be satisfied?

MR. HEIDER: I'm not sure I can go all the way to satisfaction.

CHAIRMAN DIAZ: I understand.

MR. HEIDER: Just for background, Connecticut Yankee had some historical leakage on site that effected the ground water. The ground water at Connecticut Yankee has tritium in it in some of the wells that we have. We have over 55 wells on site.

Some wells -- one well right now has over 20,000 picocuries per liter of tritium, which is above the drinking water standard that the EPA has.

We also have two or three shallow wells in and around the containment building that show strontium in excess of the drinking water standard. In fact, significantly above the drinking water standard on the order of one well is above 100 picocuries per liter of strontium, which is above the 8 value for drinking water standard.

The memorandum of understanding has trigger points in it for certain criteria. One, for example, is if you are going for a restricted release versus unrestricted release. That's not the Connecticut Yankee situation. But that would require discussion between the NRC and EPA.

In Connecticut Yankee's situation, if we exceed the drinking water standard maximum concentration limits, for example, as we do with strontium and tritium, I believe it's at the time of license termination -- although this is anticipatory of that -- that there's a requirement to have some dialogue between the EPA and NRC about that. And to really reflect, I believe, the EPA's concern that ground water be protected maybe even above and beyond what the 25 millirem per year value would protect the ground water in a total effective dose equivalent context.

Our discussions with the EPA region, informal discussions with the EPA region, indicate that they certainly want to see our ground water ultimately less than the drinking water standard. And they have had dialogue with the State of Connecticut on several occasions to encourage them to execute their regulatory controls in association with ultimately property transfer, to encourage and to exhort Connecticut Yankee to continue to do

things to reduce the ground water to below that standard and to have ground water monitoring programs that exceed the life of the NRC license for the property.

And these are all the things that we are working with the state to define and to resolve so that we have a planable basis for our conclusion of decommissioning. So really it's a tri-party type of thing even though it's a two-sided memorandum of understanding.

CHAIRMAN DIAZ: I understand. Very good. Thank you very much.

I understand that, you know, decommissioning sometimes takes a little longer than it was planned. We hope that we will learn from those experiences. But I think the issue is that they need to be done well. And what I'm hearing is that this is the case for Saxton.

From your experience, did anything cause a significant delay in your processes? Or was it just a matter that the way that the project evolved and all, you know, consideration was, you know, technical, decontamination, financial, public interactions, that makes such a case that at the time that it took was so significant amount of time?

MR. KUEHN: From Saxton's perspective, just to give you a measure of where we are in comparison to where we thought we would be I would tell you today we are three times as long and three times as expensive as we thought originally back in 1995. And that's a fact.

And there are a lot of reasons for that. From the



Commission's perspective and our interface with the Commission, I think the LTP approval was our most difficult of the processes we have gone through with you. Today we are experiencing interface with our field inspector, Mr. Dragoun and ORISE as a subcontractor to him, looking at our final site survey process. And that's going very well.

I mean, they are doing everything they can to not interfere with my schedule and the way I'm trying to proceed and yet taking a good look and a confirmatory look at what we are doing over our shoulders rather than trying to do their own in series with what we are doing. And that's really working well. And they have pointed some things out that have helped us. There's a very good interface.

And you can't point fingers at anybody for the LTP review. I thought NMSS was slow sometimes. They thought we were slow in getting them characterization data. And we were both right to some degree.

There wasn't as much guidance as there may have been in place at the time, but we were one of the first coming through the shoot. That was difficult. It was a learning experience for NMSS and NRR and Saxton. We all learned through the process. And I think it will be better in the future.

CHAIRMAN DIAZ: We certainly hope so.

MR. LEIDICH: Just a broad comment, Mr. Chairman. If you look at the license renew process for the operating reactors -- a different subject completely -- but I think that the Nuclear Regulatory Commission and the nuclear industry have worked very well together. And even the first

license renewals that occurred were really very good by relative standards.

And I think there was a lot of concern on both sides that the process was going to be very burdensome. So I think our recommendation would be to step that up on the decommissioning side as well to be sure that a similar level of involvement and engagement between the utilities, industry groups and the NRC and the EPA is going on to get these things in a right position plus schedule and certainly, above all, quality.

Any utility that faces a three times cost and a three times duration may just opt to say, well, I guess I will just not do anything. And that's the wrong answer for the public. It's the wrong answer for the industry. So that's certainly our recommendation going forward is to step up to visibility and get these things behind us.

MR. KUEHN: One other quick point from our perspective. We actually transported citizen's task force members to the meetings here with NMSS and NRR on the LTPs so that they could kind of understand the detail, the level of detail we were struggling with to try to get through the process. It opened their eyes.

COMMISSIONER MERRIFIELD: So they could share your pain?

MR. KUEHN: Yes.

CHAIRMAN DIAZ: So going back to something we discussed, it's not only a matter of coordination and communication but of timely implementation?

MR. KUEHN: Absolutely.

CHAIRMAN DIAZ: All right.

Mr. Granlund, thank you again for being with us. From your perspective, again, the same question. Was there anything in there that you saw that could have been done better or more effective from your standpoint of your health physics perception? Was there anything in there that you think, you know, could be lessons learned?

I know you talk a lot about the part of the public. And we appreciate that very much. But from your perspective, sir.

MR. GRANLUND: Well, I would look at it as a lot of small things that delayed the project a long time. I think one of the major things that, from my perspective looking at it, essentially was the historical documentation. It seemed like they kept getting surprises as they went along.

And a major part of the decommissioning was not the nuclear side of the plant but the old steam generating side of the operation, the tunnels, the foundation for the old steam generating plant. All that excavation, all the cleaning that had to go along with those.

And those were things that, while people might have known about them, they just didn't put any connection with radiological contamination. So that, I think, was a major delay.

There were delays, from my perspective, in terms of how long it took to review things by the NRC, how long it took to prepare those things.

I think those were probably pretty much you would expect for any kind of new program with the detail that's required by MARCUM and by the LTP plan at present.

CHAIRMAN DIAZ: Thank you, sir.

Commissioner McGaffigan?

COMMISSIONER McGAFFIGAN: Let me start with a couple comments. The reason I thought -- just in response to you Mr. Granlund, that Indian Point 1 and Millstone 1 might be able the move is that there is no citizen's task force at those sites and there is no active decommissioning -- they are both in SAFSTOR at the current time so there's not much going on. But I understand what the staff said earlier.

I'm very sensitive as well to whatever office is in charge of the site that we have as much continuity as we can. But if these projects are going to last as long as they are lasting, it's going to be hard to have a single person from the start of active decommissioning to the end of active decommissioning because that is longer than typical staff assignments last at this place, unless we can speed things up which is going to be difficult.

In response to Mr. Leidich, I think when we first got here, Chairman Diaz and I, we had notions that we were going to have a lot of decommissionings -- we had several plants retire prematurely all at one time, Maine Yankee, Haddam Neck, the Zion plants. Big Rock Point retired on the time as they expected, but I think there were six decommissionings all within about a year or two.

And so our operating plan sort of assumed that there would be a new decommissioning reactor every year. That has now proven wrong -- there's been a total turnaround of license renewals happening. So I think we have made a conscious decision that this isn't like license renewal, we are not likely to have just a whole series of these things coming in. So we haven't necessarily applied the same resources. It took longer than I think the staff wanted to consolidate all the guidance and all that because we clearly didn't put the same level of resources in it as license renewal.

It's probably a rational decision. I think things will get better slowly. But the problem is that it isn't analogous entirely to license renewal.

MR. LEIDICH: I certainly wouldn't want to trade those priorities.

COMMISSIONER McGAFFIGAN: Let me get to -- the thing that I found most discouraging today -- I will turn to the folks at that end of the table -- is the slide that you had, number five, on NRC license termination is only the first step. I sort of feel for you in that you mentioned strontium 90 being above the drinking water levels.

The strontium 90 maximum contaminant level (MCL) is one of the more broken MCLs. It doesn't correspond to 4 millirems effective dose equivalent. It corresponds, to my recollection, to about 1/60th of that. So you are down at small numbers of microrem per year, if you indeed have to meet that. And I think Brookhaven National Laboratory may have once run into this issue at their spent fuel pool.

The notion that you have to meet a broken standard based on 1960's methodologies because somebody somewhere thinks that that's a good idea -- we specifically, when we did our license termination rule in 1997, despite comments from our sister agency, rejected that approach because we didn't think it would work.

Then our sister agency, in December 7th, I think it was, 2000 -- they had proposed around 1994, to my recollection, to go with a 4 millirems effective dose equivalent ground water standard, which would have been an enormous improvement over their current standard for beta and photon emitters, and they backed off on that, decided not to do it. Decided that they needed more work. Said that they were going to revisit it some day. I don't think they have revisited it.

As I said, it truly bothers me that you guys are caught up in sort of multiple regulators regulating you, in some cases, to just about impossible standards and fairly ridiculous standards. If my recollection is right that you are down in the 100 microrem or so range per year, you know, you spend eight hours in the Capitol and you will get on the order of 160 to 240 microrems during that visit to the Capitol, the U.S. Senate or the U.S. Congress.

We don't put warning signs up around the Capitol saying don't enter. And the notion that your site would fail a test that was equivalent to five hours in the Capitol in the low radiation areas, three hours in the Capitol in the high radiation areas is something that I find mind-boggling. But I don't

know what the answer is.

{NOTE: When I returned to my office and reviewed EPA's 1991 (not 1994) proposed rule for drinking water MCLs based on 4 mrem/year effective dose equivalent, and EPA's 2000 documents when the rule was finalized without making the 1991 proposed change, I found that the current Sr-90 MCL (8 picocuries/liter) was only off by a factor of five. It should be 42 picocuries/liter if we had a true 4 mrem/year drinking water standard. The current standard corresponds to about 800 micorem/year which equates to 27 to 40 hours in the Capitol. The thrust of my remarks remains the same. The final generic environmental impact statement (NUREG-1496) which accompanied our 1997 license termination rule, looked at the cost/benefit of remediating Sr-90 ground water contamination by pump and treat technology to the EPA MCL and found the costs astronomical compared to the health benefits (see table 6.11 of Volume 1 of NUREG-1496). Such analysis led the Commission to unanimously reject a separate ground water standard in our license termination rule.]

We have proposed an answer years ago after an exchange of correspondence between then Chairman Jackson and Carol Browner, a legislative provision that would give finality to our licensees if NRC or an Agreement State, if an Agreement State is terminating the license for many materials licensees. If we said the license was terminated, that would be it. Or the Agreement State said it for the materials licensees. And I still support that provision.

I mean, I think you are in a very, very difficult situation. I'm hopeful that our consultations with EPA under the MOU that we have developed with them will prove to be non-controversial and straightforward. But that is a hope that may not be fulfilled -- I certainly hope it for Saxton because I think the issue there is absolutely, completely and totally trivial.

But to the extent that it's strontium 90 that's your problem -- you mentioned that you are at a 100 picocuries per liter. There are at 8 picocuries per liter. If I'm right that 8 picocuries per liter is a broken standard. Meeting a formula of effective dose standard, you would be so far under that it's not funny. But that's not where they are today.

So just as I say, you don't really have to comment. I just find it very, very disheartening that you have multiple entities all second guessing what we believe is a very protective rule.

And you did mention that one of the problems you have is convincing the public that 100 years from now things won't have changed. If millirems or fractions of a millirem someday prove -- I can't imagine science proving that that's a problem because we have got a thousand years of people living in places like China and India, places where monazite sands are present and people are getting rems per year and having no discernible health effects.

But if millirems prove to be dangerous, then we are going to be regulating, you know, double beds, suggesting spouses sleep in separate beds for the potassium 40 that they are radiating each other with.



We are going to be suggesting no plane flights. We are going to be -- I mean, Denver and the Rocky Mountains will have to be evacuated. The Capitol will have to be torn down.

I mean, it is -- I think you can assure the public in your area that to the extent that millirems are not protective there is a vast element of our society, vast areas of the nation -- the variation and background radiation within Connecticut, I suspect, is from one place to another the highest radiation zone to the lowest radiation zone in the state, you know, 500 or 600, maybe 700 millirems.

So the person living in the high area would really be in dire trouble if a millirem mattered. I don't think it does. I don't think the science is going to change. I think the science, if anything, is going to change in the other direction as we better understand at a molecular level the effects of radiation.

You almost don't have to say anything. That's just me ranting about the sad state of regulatory policy.

COMMISSIONER MERRIFIELD: If I may interrupt for a second.

Obviously you can tell that Commissioner McGaffigan has thought about this a bit and speaks with great passion.

If I were your counsel -- and I'm certainly not, because I'm on the other side of the table. But given the fact that you are in the middle of your process with these other agencies, you might want to take his invitation

not to necessarily comment on that one.

COMMISSIONER McGAFFIGAN: Middle of what process with these other agencies?

COMMISSIONER MERRIFIELD: They are obviously still working with state and the EPA. They are not really in a good position to agree with you, even though --

COMMISSIONER McGAFFIGAN: I really don't expect you to say anything. If you have multiple regulators and we are the sanest of the three, you probably should not comment about the other two.

I hereby leave you off the hook. Thank you very much.

MR. LEIDICH: I will take you up on your offer.

CHAIRMAN DIAZ: Commissioner Merrifield?

COMMISSIONER MERRIFIELD: I would like to have you all sort of go into an area that you really didn't go into in great depth. And that is I would like to get a little sense of what your perception is of the future uses of these sites and where you think it's going down the road.

I mean, it seems to -- I come at this -- again, we are a product of our background. I mean, I work extensively in military facilities. We underwent the decommissioning process in years back.

When I came to the agency, I was a strong advocate of trying to segment some of these sites. So that we can get areas, portions of the site into decommissioning earlier -- or get into reuse earlier rather than later. I know some are taking advantage of that. Others haven't.

But I would like for you to talk about the extent to which you have thought about segmentation and early utilization of areas that are not under remediation and what the views are in terms of reuse of the site, whether it's for economically beneficial purposes for their communities surrounding the sites or whether it's for environmentally beneficial opportunities such as forced lands or conservations.

So if you could talk a little bit about those notions, I would appreciate it.

MR. HEIDER: Let me go first from Connecticut Yankee's perspective. I think you are right. This is a very important issue. Because I think if we can articulate a vision for the future of the property, the rest of these processes, even our interactions with the other regulators that effect us, go much better. Their level of cooperation in achieving or identifying the real values they want to see the property come down to I think changes as they understand how the property is going to be used in the future.

At Connecticut Yankee we have had a couple different opportunities present themselves to us. Back prior to the collapse of the energy markets in New England we had a couple people who were interested in putting a new power station on the property. Unfortunately, economics have changed and that has gone away for now.

In terms of looking at the property in the future, we have engaged a conservation law foundation to help us understand how to use the property in the future. We have some considerations. We have the power

plant that we have to decommission. We have fuel that we have to store on site. We have over 500 acres on site, some of which is very interesting from an archeological standpoint, some of it that is gorgeous forest lands, and some of it that's really good for power production in the future.

I think where we are heading in Connecticut -- and we haven't made any final decisions in this area, is that the area where the power block was will be retained as a potential for future power use. That's of interest to the state as a strategic consideration. It's very interesting to the town as an economic consideration. And, you know, it helps us to articulate a future.

The balance of the property we have been looking at for conservation purposes and the main stakeholders in that right now appear to be the state. Although there also are some others organizations out there that are also interested in taking on this challenge of a piece of property and being able to steward it throughout the years.

We envision releasing a lot of our property through a segmented process. The power block, when we have done our decommissioning, some of the back 40 area, as we call it, before that even potentially, just to be able to demonstrate to the process how it works and works well. And then put that out into the conservation use a little bit earlier. But the area where the fuel storage facility is will stay licensed, obviously, until we can get the fuel off of the site.

MR. KUEHN: Saxton, again, is unique. If I describe the site to you, the Saxton Nuclear Experimental Corporation portion of the land we are

on, is only 1.147 acres, very small. And the property in general is 150 acres owned by GPU back in the days when that fossil station operated.

The interesting thing about the Saxton site is it's in the a flood plain. You are not going to build anything there, manufacturing or otherwise.

The citizens were interested initially in what are you going to do with the property? When you are done with it can we have it for commercial development?

A company went out and looked at commercial properties in the area and there are more commercial properties than there are commerce that want to go into them. So there was no need to leave it with anybody.

So there's a substation there which is active and will remain active and a line shack where lineman work out of, so it will stay the company property with no future development.

COMMISSIONER MERRIFIELD: Looking back at the analogous situation with some of the military sites, you have opportunities -- and I see why as an example of this where the fact that the utility owned that piece of land for a long period of time did provide an opportunity to have forest land set aside that otherwise would have been used for other purposes. And there's an environmental good that's coming out of all of this.

I think the same thing we are seeing up at Maine Yankee, where there's a negotiation underway to have a substantial chunk of land holdings there given to a foundation that would allow wide public reuse of

that site. So I think that's something that certainly, in our role as a Federal agency, should be mindful of our role too in environmental stewardship.

The final question that I want to ask is, you know, we talked a little bit about the areas in which we could do a better job, you know, having a more streamlined process for going through license termination.

What are the particularly successful things that you think that we have done that we shouldn't change or alternatively, things that you have accomplished on your own that you would encourage other utilities in the future to adopt?

MR. HEIDER: I think taking the latter part of that question first, I think one of the single most important things that we did was to establish that community advisory board at Connecticut Yankee. We had a very difficult transition time in and around the beginning of decommissioning for numerous reasons that were occurring in Connecticut.

We had material that was spread off site. We had regulatory issues associated with the plant in and around the shutdown time and just a public confidence issue. That has been very helpful in helping us get to the point where we are.

Our sister plant in Rowe has a community advisory board. Saxton does. Maine Yankee does.

And I think all of them have been very successful in helping get the support of the community behind the decommissioning projects. I think that's one thing, although it is not required by regulation, it's become an

imperative in the industry to do that. And I think it's been very successful.

So that's one thing I think we would continue on doing.

I think in terms of things that you should keep on doing, I was very skeptical initially about transferring the responsibility to NMSS. But I think over time, over even a very short period of time, it's clear that NMSS now has more ownership of the process than they had before. Before we had NRR doing the project management and then farming out things to NMSS as sort of a consultant role in the process.

And I think having them be more responsible for having a broader perspective of the overall process has been very helpful. We see it a little bit with Connecticut Yankee because we have only used them for a short period of time. Our license termination plan was pretty much approved when they were done.

But in watching the activities with Yankee Rowe, it's been substantially a different process than what we went through with Connecticut Yankee. It's just clear that they have been embracing this as something that they have to deliver and take on as a challenge. And I think it's going to be successful from that perspective.

And the other thing in hearing this morning, the work on the modeling and trying to come up with more realistic values. Because we are chasing atoms around these plants trying to find them and eradicate them.

The manifestation of that, at least with several decommissioning plants, is that we are taking the plants now, cutting them

up, putting them in boxes and shipping them across the country. Maine Yankee is shipping hundreds of millions of pounds of waste across the country. Yankee Rowe is going to do this same. Connecticut Yankee we are very close to making the decision to do the same thing.

It's just plain old not worth the risk of going through a decontamination process and getting into that recycle loop where you are trying to find the atom and chase it down and chase it through the cracks of the plants. So the modeling here is very important so that we can have realistic values to decommission to so that ultimately you can do a decontamination of a plant as opposed to cutting it up and putting it in a box and shipping it off site. Because it's just not that much landfill space available, even in Utah, for this material.

MR. van NOORDENNEN: In a couple of examples I am going to share with you, lessons learned that we have done with the Yankee Rowe and with the staff. And one of the things that Ken touched on is the modeling, which is a portion of the LTP review.

What we have done there is we have submitted the modeling portion early on and have the staff working closely with our technical people in resolving those modeling issues, even before we submit the license termination plan. That's having great benefits and will also hopefully reduce the number of questions in the RAI that's coming up. That's one significant improvement that we are seeing.

The other is what we did on Connecticut Yankee and also on



Yankee Atomic, the ground water issues, of course, are very important to not only the NRC but the other agencies, the state, and the EPA. And we have had the ground water people at all three agencies get together on site, walk down the wells, agree on the monitoring locations and the program that's involved and allowing the state to take the lead on the monitoring program with the federal agencies providing input.

And that's really had a lot of benefits and coordination and agreement as to coming up with one ground water monitoring program that all three agencies can use for their purposes. So that's been very beneficial.

MR. KUEHN: I agree that chasing microrems and picocuries per gram drives you crazy at some point. You go looking at the old steam plant in our case, we literally drilled down through 35 feet of debris where the old turbine building had been collapsed into itself, fossil plant, and found radioactive material in one of the sumps.

Well, then the whole thing has to be excavated and you are into all of that. And then you can't just put it back in the ground. You have to survey it adequately to get to DCGL level before you are allowed to put it back in the ground.

So there are things we didn't anticipate that are really cumbersome.

Positive standpoint, from the company's perspective GPU days, there was a general office review board reviewing Oyster Creek, TMI

and the things that went on in GPU Nuclear. There was a subcommittee of that committee which looked at Saxton. I appreciated that look, even though I squirmed under their scrutiny. And the citizens enjoyed watching me squirm. That was part of the process and it was a good one.

And Mr. Leidich has continued that with the safety oversight committee in FirstEnergy Nuclear. So I appreciate that support. And it's necessary for these projects.

From the NRC perspective, quickly, one thing you are doing well in my mind is, again, as painful as LTP approval was, your management from both NMSS and NRR were there at those meetings when they needed to be and were really pro-active in trying to find a way through the painstaking effort we were going through at the time to try to get LTP approval. Accommodated, helped, tried to find solutions to any sticking points that we had.

Just having them in there was important. They didn't need or have to be there but they were every time we met. So that was good.

MR. LEIDICH: The only additional comment I would make is from an internal perspective FirstEnergy, as you all know, we have made a lot of changes in FirstEnergy's nuclear operation. One area where we have focused on continuity of personnel is in the decommissioning activity.

So we have really been -- while we provided the oversight that Joe talked about in kind of a hands-off mode in terms of extensive management changes, because that continuity is really important. And you

know what's going to live for a hundred years after we are all gone is going to be the stories that are passed down from generation to generation on how these processes were handled. So that's what's going to live, more so even than science.

So having people like Joe working with the community, to make sure that they have a good feeling about what's going on is really critical to your success.

COMMISSIONER MERRIFIELD: Chairman, I appreciate the participation of our panelists today. I think this has been an excellent briefing and certainly met a lot of my expectations about what we would learn.

The final point I would make -- it was someone's comment about, you know, pictures being worth a thousand words. I would perhaps -- and I'm not going to encourage it for the rewrite of the report that I would encourage our staff to do. But as we go next year either to this briefing or to the documentation that we get as a run up to it, that that might be something we need to think about as well. That will provide us, I think, a little better focus in terms of our presentation, how we do it as well.

COMMISSIONER McGAFFIGAN: That will cost .18 FTE.

CHAIRMAN DIAZ: Only .18 FTE.

Well, thank you so very much. I agree, this has been an excellent meeting.

You know, we engage in all of these activities. And the fundamental focus is always the same, it's radiological protection.

And it is kind of hard for us to sometimes put every issue on the same priority. We can't. But I think they are all important. They all fit into what the agency is always trying to do.

I think years ago we decided -- and I think Commissioners McGaffigan and Merrifield has been talking to the issue, that we need to place not the atom but where radiation is in a risk scale that allows this nation to work with it, that allows the nation to work with it well because it's an important, you know, factor in our lives. And we keep struggling with that.

And any and all that we receive as information and how to handle that, I think, is for the benefit of the American people.

And with that, unless my fellow Commissioners have any additional comment, we are adjourned.

(Whereupon, at 12:30 p.m., the proceedings were adjourned.)