UNITED STATES NUCLEAR REGULATORY COMMISSION

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

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TUESDAY

FEBRUARY 14, 2006

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The Commission convened at 2:00 p.m., Nils J. Diaz, Chairman, presiding.

NUCLEAR REGULATORY COMMISSION:

NILS J. DIAZ, CHAIRMAN.

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PRESENT:

LUIS REYES, EDO

MARGARET FEDERLINE, DDIR NMSS

LARRY CAMPER, DIR. WMEP, NMSS

BILL BRACH, DIR., SFPO, NMSS

BILL REAMER, DIR, HLW, NMSS

P R O C E E D I N G S

CHAIRMAN DIAZ: Good afternoon. The Commission meets today to hear from the members of the Office of Nuclear Materials and Safeguards on the status of the recent activities and planned activities I'm sure related to waste safety.

The meeting is one of the periodic meetings we conduct essentially every Spring to bring the Commission up to date and the public up-to-date and have the opportunity to make sure that the staff knows what we should know and we know what we believe the staff is doing, whatever that means.

I think things will look always back a little bit. There has been a significant movement in a series of areas since last year.

I'm sure you have some areas in which you would like to have more certainty and we also would like to be able to have more certainty.

But sometimes the NRC needs to proceed with what we have on our plate and I think we are very proud of the fact that whatever the issues are, we manage to accommodate and go forth.

With that, my fellow Commissioners, any comments?

If not, Mr. Reyes?

MR. REYES: Chairman, Commissioners, the staff from the Office of Nuclear Materials Safety and Safeguards are prepared to brief the Commission today.

This is the second of a two part briefing. On February 8th, we briefed the Commission on the Materials Safety Program.

Today we will be covering the Waste Safety Program. Just like

we did in the previous one, we are going to mention our accomplishments very, very briefly and concentrate on our challenges and how we are getting ready to face those challenges in the future.

With that, Margaret.

MS. FEDERLINE: Thank you, Luis. Chairman, Commissioners, it is a pleasure to be here with you today to talk about the Waste Safety Program. With me at the table are Bill Reamer, who's director of the Division of High Level Waste Repository Safety, Larry Camper, who's Director of the Division of Waste Management and Environmental Protection. And Bill Brock who is Director of our Spent Fuel Project Office. Also in the well today are Steve Reynolds from Region 3 and Bruce Mallett from Region 4 as well as representatives from the Offices of State and Tribal Programs, Research, the General Counsel and Nuclear Security and Incident Response.

We appreciate being here today to update you on our significant accomplishments in the Waste Safety Program and to describe our planning for future success.

Jack and other managers from NMSS met with you on February 8th, and provided a similar briefing on the Materials Program. They discussed in detail our process for planning for success. We plan for this brief to complement that information.

May I have slide 2?

During the briefing today, we plan to touch on several of our major accomplishments. In support of this briefing, we have provided you with more extensive discussion of our accomplishments, activities and their status and products which you will see over the next 12 to 18

months.

Now, I don't plan to go into a lot of detail on these during the briefing, but of course, we will be happy to answer any questions you have on these topics or others at the completion of the briefing.

The major focus of our briefing today will be on discussing how we are planning for success.

Jack provided some detail on our process for evaluating future challenges and how best to prepare for them.

I'll just briefly touch upon our use of the organizational capacity model and then, Bill and Larry and Bill will discuss the results of its application in the Waste Program.

At the end, I'll summarize our conclusions about how we can best prepare for the future for both the Waste and Materials Program.

I'm going to be focusing on some of the cross-cutting attributes which we feel will best leverage the number of scenarios across the office.

The next five slides highlight some of our most significant accomplishments from the Waste Safety Program. These have contributions from Spent Fuel Project Office, Division of High Level Waste Repository Safety and Division of Waste Management and Environmental Protection.

As I said, our partners are here with us and significantly contributed to all of these accomplishments.

Slide 3 please: Slides 3 and 4 highlight the high level waste accomplishments. As you are looking at these slides, I just want to emphasize the team work which has been instrumental in these

accomplishments. For example in order to make revisions to Part 63 available for public comment consistent with the time frame of revisions from the Environmental Protection Agency, a team composed of High Level Waste, our Division of Industrial and Medical Nuclear Safety, the Office of Administration and OGC successfully worked to a very tight schedule to meet the Commission's expectations.

Also, we have a core group in the high level waste area which has worked very effectively in our planning and budgeting activity.

So moving to slide 5, slide 5 and 6 note accomplishments in decommissioning low-level waste and environmental protection.

These involve many routine actions which by themselves can go easily unrecognized.

For example, confirmatory surveys and reviews of our license termination plans are critical to our safety mission and provide the basis which enables us to make decisions about license termination following decommissioning.

Now, during 2005 we made 8 license terminations which is a significant increase over previous years. Therefore, I want to emphasize the importance of this core work and note that it's been instrumental in achieving efficiency in our goals.

Turning to slides 7 and 8, slide 7 and 8 summarize our spent fuel storage and transportation accomplishments. There have been many technical accomplishments in these areas including security assessment. But I particularly want to acknowledge the contributions of the CFO, Research, NSIR, the regions and SFPO in achieving an

effective rating in the Spent Fuel and Transportation Program review by OMB.

This is the highest rating that OMB gives in the PART Program and we are extremely proud to have achieved it.

Turning to slide 9, this completes our brief overview of our accomplishments.

At this point, I want to acknowledge the tremendous contributions of the NMSS staff who have made these and many more accomplishments possible.

Now, I would like to turn in our briefing to discussing preparing for success.

Slide 9 introduces our premise in preparing for success. Now as you can see from the many diverse accomplishments, NMSS faces many potential challenges, some which we can easily anticipate and some which emerge with little advance notice.

Flexibility in our planning is key. For example, we believe that preparing for a specific scenario in any program area may not lead to success. We need to anticipate and plan more broadly, building organizational capacity to leverage success for a range of reasonable scenarios.

Turning to Slide 9, future challenges: Future challenges come from a variety of sources and may in fact involve different regulatory responses. New legislation can have significant impacts on our programs. For example, the National Defense Authorization Act of 2005 directs a consultation role for NRC for DOE's waste incidental to reprocessing determinations.

The Act which addresses Savannah River and Idaho National Laboratory determinations, envisions a long term role for NRC in consultation with DOE.

Another big challenge comes in the form of uncertainty in the timing and availability of low-level waste and high level waste disposal capacity.

For example, Barnwell may close to many generators in 2008 and it's difficult to predict whether other capacity will be available.

In another example, DOE has not provided a firm date for the submittal of the high level waste license application. Many factors have contributed to this uncertainty, but NRC needs to ensure that waste can be safely stored until disposal is available and participate in any changing national solutions consistent with our regulatory role.

Now, as you heard in the materials briefing, evolving national spent fuel policy poses an additional challenge. We need to continue to monitor that development of national policy and ensure that our programs benefit from any lessons learned in the past.

NRC needs to be prepared to fill any regulatory responsibilities and support the Commission as national policy is formulated.

Also, in our spent fuel management and decommissioning programs, licensees are expressing a desire for flexibility. Licensees are urging NRC to adopt flexible regulatory approaches which will maintain safety, yet, will facilitate the use of new technology and information.

Our resource challenges come in terms of both human resources and program support.

With work emerging across our programs, we are challenged to address competing priorities by using our resources in the most efficient and effective way. We must anticipate and ensure availability of the right skills and be prepared to move resources to ensure their most effective use.

Our vision in NMSS is to maintain an environment in which every one feels empowered and challenged to make changes to increase organizational capacity.

To achieve this, we are pursuing continuous improvement which means we are adopting new ways of doing business and eliminating or modifying approaches which are less efficient or effective.

As Jack discussed in the materials briefing, we are using an organizational capacity model to systematically evaluate a range of realistic future scenarios. In this model an organization's capacity to deal with new challenges and effectively accomplish its mission, depends on a number of elements that I have listed here on this slide.

Jack went into these in detail and I will only mention a couple of these before passing it to my colleagues.

I want to particularly mention aspirations. It is important to have a clear vision and common sense of purpose and goals. And we feel the connectivity with the Commission has been particularly significant in this regard.

We have been working with you closely as we formulate project plans, gaining early alignment and understanding of your views and wishes.

And this has helped us greatly as we've interacted with external

stakeholders.

COMMISSIONER MERRIFIELD: Does this also connect with the vision state in the Strategic Plan?

MS. FEDERLINE: Yes, it does. I should have noted that.

Our organizational skills, this means our ability to plan, and to manage resources and to measure performance. We particularly need to improve in the area of establishing more robust performance measures. And we are working on that. And I think you will see that as part of the '08 budget process.

Finally, I wanted to mention systems and infrastructure. These are very important factors, administrative information technology and physical assets. These make it possible for the staff to do its job.

For example, in the information technology area, using the LSN in the high level waste program has facilitated our work. And of course space is one of the biggest challenges that the agency faces right now and NMSS feels that challenge as well.

We have examined the scenarios against each of these elements to determine what actions may leverage success for the broadest range of scenarios.

This provides a systematic basis for planning which we think is extremely important. Now with this as background, I want to turn it over to Bill Reamer, Larry Camper and Bill Brock to discuss challenges in their areas and our planning for success considerations. Bill?

COMMISSIONER MERRIFIELD: Mr. Chairman, this may go out of the staff's plan or they may need to come back to it, but on the slides for slides 5 and 6, we talked about the 14 high priority

decommissioning actions and the four complex environmental impact statements.

Perhaps, there is a bit more that can be said about to give a little bit of the flavor of what has occurred because I think there is a lot of progress that the staff has made and I think although I appreciate the desire to make sure you hit the colored light, I think the brevity didn't give the fullness of the flavor of what the staff has accomplished. And I would suggest that perhaps either Margaret could go into that briefly now or come back to it at the end.

It doesn't matter to me but I thing there is additional material that might be able to be touched on to give that fullness.

MS. FEDERLINE: If we can just take with two minutes, let me just start and I will hand it off to Larry.

Commissioner Merrifield is exactly right. This is an area that illustrates what we've done in organizational capacity and looking at the wide range of challenges.

Larry has developed a plan which really has systematically dealt with efficiencies and effectiveness and has put in place some new ways of doing business that has allowed us to achieve those terminations and environmental impact statements.

So Larry, why don't you describe the work that you've have done.

MR. CAMPER: Commissioner, thank you for recognizing that. First, quickly, history is a good place to start. There was a time when we had sites going back ten, fifteen years and we were having a lot of trouble making progress.

This is an end-of-cycle cost for many licensees and site owners and we were having difficulty.

What we did several years ago now, staff undertook a rebaselining of the entire decommissioning program, which meant that we went and really looked at where each one of these sites stood at the time, what it was going to take to get to closure. We then did a program evaluation, and subsequently a license termination rule analysis. And what we did was frankly was to devote a lot of resources. With the Commission's support, put a lot of resources into improving the efficiency in the effectiveness of the program. For example, we put in place a 90 day acceptance review, a much more detailed acceptance review in which we took a look at some of the health physics issues, the ground water hydrology issues and we made a determination as to whether or not a license termination plan or decommissioning plan was really worthy of continuing an in-depth technical review.

So we tried to make decisions much earlier in the process for one thing.

This past year, 8 completions as Margaret pointed out. This year, we are anticipating another 8, and as many as 10 next year.

And what that really represents and I really do thank you, Commissioner Merrifield for pointing this out, is a culmination of many years of hard work, support by the Commission and yes, an investment, we made an investment in the chain of efficiencies in doing things differently.

MS. FEDERLINE: And we are not finished.

You will hear later in the briefing that our goal in this area is to increase the timeliness of reactor licensing reviews by 30 percent over three years.

So we still are continuing to set robust goals for ourselves to continue the systematic upgrades in this area. So thank you very much.

COMMISSIONER MERRIFIELD: If I may underscore that ever so briefly. I think in particularly as it relates to license termination plan approvals, I think it is noteworthy that we went through both Big Rock Point and Yankee Rowe last year in terms of terminations, both Main Yankee and Trojan as well as six others for decommissioning plan approvals, some historic legacy issues we had to deal with, particularly with some of our members of the Federal family and the Pathfinder site in South Dakota, Elgin Air Force Base, and surprisingly too, I'm sure to a lot of folks at Fort Belvoir, which is in the D.C. area which did have a power reactor. And then four complex environmental impact statements, the MOX final EIS, the LES final EIS, the USEC draft EIS and then of course, draft generic EIS for disposition of solid materials. Mr. Chairman, that is a solid amount of accomplishment. I think the staff should be congratulated for that. I think it is because of the attention the Commission encouraged the staff to give this in years past and I'm happy to see you are going to continue with that level of pacing this fiscal year and the next.

I will let them get back to their presentation but I think it is important to underscore that for the public who may not be aware of what you actually have done.

CHAIRMAN DIAZ: All right,

MR. REAMER: If we could turn to slide 12 then looking into the future with respect to the High Level Waste Repository Program. We've identified the 3 challenges that are on this slide. And with respect to the first challenge, timely input to a changing Department of Energy Program, we know in October, of 2005 DOE announced a new program approach to handle mainly, spent fuel and canisters from the reactor to the repository.

And the DOE changes will involve new performance specifications, new supporting analysis for the transportation, aging and disposal activities, raising cross cutting issues for the NRC.

The Department is also making other changes to its total system performance assessment model, the model that governs the repository post closure performance period. And it is supplementing its data in the infiltration area as well, that area where they been potentially affected by the allegations of USGS falsification of quality assurance documents.

We have computed, based on a preliminary look, that up to 25 percent of our key technical issue agreements could be impacted by changes that I have mentioned as well as potential changes to meet a new EPA standard.

Success for the NRC has meant keeping pace with the Department of Energy program changes, to assure that issues are identified early so that the Commission can be in a position to be able to complete its license application review in the statutory period.

The second challenge, preparing for licensing in an uncertain

environment. We know the Department is continuing to actively pursue a license application, supported by budgets in 2006 and budget request in 2007 to do so, aimed at preparing an application and completing supporting documentation.

Yet, there continues to be major uncertainties, uncertainties that impact our ability to prepare for conducting a licensing review in the proceeding. The Department has not identified as Margaret mentioned, the date for the license application nor have they identified a date by which they would be certifying the completeness of their document collection for the Licensing Support Network.

Also, the Environmental Protection Agency is in the process of finalizing chances to their standard to adopt a 1,000 year compliance period. And the NRC will need to complete its own rulemaking to amend 10 CFR Part 63 to make changes there. And also, to update its guidance and tools to address that regulation.

And the final EPA standard may also result in the Department making significant changes to its performance assessment post closure that I mentioned earlier, changes that we have not yet and won't have had an opportunity to have reviewed and evaluated. Yet, notwithstanding these uncertainties, the public will expect that the NRC is ready to properly carry out its responsibilities to implement the licensing standards and conduct the licensing proceeding when and if there is a license application.

And the Repository Construction Authorization decision as we have mentioned in the past in addition to being under a very stringent schedule from the Congress, is also likely to be highly contested. It is

not a project that we have carried out before.

And lastly, as a challenge in this area, we have identified the evolving national policy on spent fuel management. We know the Administration's policy on management is undergoing change, particularly in the area of the potential for reprocessing. And this is a key uncertainty that we need to factor into our planning.

If we can move on, then, to the actions we will be taking to enhance our capability to be able to be ready to address these challenges.

Of course, our strategy is to maintain a readiness for the Commission to be able to complete its statutory responsibilities. But in the face of the change and uncertainty, we need to redouble our efforts to do this by assuring that our programs are well aimed at the DOE program and the DOE approach and that they are well integrated as well.

This requires active monitoring on our part and anticipating where the Department is going in a proactive manner.

Also in the resources area, we need to achieve and maintain that balance, that right balance between on the one hand, staff continuity that a project of this sort requires, but also, enhancing our ability to adapt and be ready to anticipate and meet new and diverse challenges.

We provide staff the diverse knowledge and experience they need in other programs and we also do this by maintaining and using the Licensing Support Network, the reservoir of information that includes the staff documents relevant information for this project. We

also need to continue to support maximum flexibility for managing human resources at our Center for Nuclear Waste Regulatory Analysis in San Antonio, our contractor in this matter.

And this includes fostering the placement of work at the Center to maintain those core skills that the Center has and must maintain to be able to support us in our mission.

Also, with respect to infrastructure, it is important to our success that we complete the changes to the infrastructure, to be ready for the future licensing proceeding. This means completing Part 63 and the associated guidance to meet the revised EPA standard. Also developing guidance for the transportation, aging and storage canister, updating our review plan to address facility design changes, maintaining the courtroom and supporting information management systems in a ready state, and modifying our analytical tools as well. Of course the change to 10 CFR Part 63 will involve a Commission paper and a Commission decision.

And in the organizational structure area, we have warned our teams with our colleagues in spent fuel storage and also in the reactor area to foster an integrated regulatory framework approach to deal with the DOE proposed transportation, aging and disposal canister.

And we want to also continue to maintain and enhance our integration across our technical teams.

And in the culture area, adaptability to change is now part of our life in high level waste. And we also made great strides and continue to foster teamwork and communication which are the tools we use among the staff to deal with the uncertainty in change.

If there are no questions for me at this point, I will turn it over the Larry.

MR. CAMPER: Thank you Bill. Mr. Chairman, Commissioners, slide 15.

At this point, case work is reasonably predictable within my division as compared to other NMSS programs. However, there are a number of uncertainties, especially as related to the low-level waste area and to the environment. Let me talk first about decommissioning. In past years during our discussions with the Commission, the primary challenge has been how to reduce the number of complex sites.

We still face that challenge but we are making considerable progress. Now, we face an equally complicated challenge of capturing our lessons learned in order to reduce or eliminate many of the problems we have encountered for contaminated sites thus far.

The application of our lessons learned applies not only to a generation of power reactors entering decommissioning, but also for our complex sites.

It also has applications for emerging technologies such as uranium enrichment and fuel reprocessing which Bob Pierson discussed with you last week during the Materials Briefing.

Capturing and applying lessons learned in a effective manner while balancing sites management, and knowledge management under resource constraints will indeed prove challenging.

In terms of case work of the decommissioning program, power reactors remain steady over the next 3 years with receipt of the license termination plans Rancho Seco and Fermi 1 and completion of the

decommissioning for Big Rock Point, Connecticut Yankee and Yankee Rowe. Then, it decreases and is followed by a long term hiatus. Complex sites continue, although the number of sites steadily decreases while generating an estimated two new sites per year.

For low level waste, in this area, we have a paradox. On one hand, industry has been following a pragmatic approach in managing and reducing the volume of waste.

On the other hand, we see an increasing interest by other stakeholders. For example, the General Accountability Office, NEI, EPRI, The National Academy of Science, our Advisory Committee on Nuclear Waste and yes, Congress to modify or further improve, meaning the consistency, the reliability, the flexibility and further risk-informing the management of low-level waste.

In addition, if we consider the potential for new fuel cycle facilities, or a nuclear renaissance in general, then, we can anticipate the generation of much more low level waste in the future.

We must be alert to this changing environment and develop a strategy effectively to utilize our very limited resources in this area of our program.

In terms of case work, we do plan for the closure, for the Barnwell site in 2008, which will impact 36 states, with regard to disposing of class B and class C waste. The Texas licensing and excess of the Waste Control Specialist Site is uncertain as we speak. Congressional interest and other stakeholder interest, as I said, in our nation's low-level Waste Program remains high.

Waste Determination. Activities are forecast to continue well

into the future. Thus, we must continue to create an infrastructure that ensures a stable and consistent process for the review of waste determinations and monitoring of DOE activities when indicated.

We must continue to complete complex waste determination reviews in a highly efficient open manner while cooperating with the States of South Carolina and Idaho. For case work, we will continue to receive terminations from The Department of Energy pursuant to the National Defense Authorization Act of 2005 throughout the planning period in the foreseeable future for that matter, resulting in 3 to 4 waste determinations annually.

Staff is being requested to complete similar reviews for the Hanford Site, and the possibly the West Valley Site.

We will also conduct monitoring activity based upon our technical evaluation report findings and understandings reached with the Department of Energy and the affected states.

Environmental Reviews. The challenge is to continue to produce high quality and effective environmental reviews under intense time lines for emerging technologies and highly visible licensing actions such as the Louisiana Energy Services application.

Challenge is exasperated by the need to simultaneously support other less complicated but important licensing actions throughout NMSS and by the competing needs for environmental analyses on the reactor side which may impact our existing talented resources.

In terms of case work, we do expect an increase in the support of fuel facilities licensing and rulemaking activities. Significant work is also expected to support our agency's West Valley review, review of

the Department of Energy's greater than class C waste Environmental Impact Statement and other materials decommissioning reviews.

Slide 16. Thinking in terms of the organizational capacity model again to address these various challenges which I just cited. We need to focus on certain key functions.

Strategies. We need to continue to utilize a risk-informed performance based approach, while focusing upon openness and internal, external relationships. For example, our work on the low-level waste front will involve interactions with the Advisory Committee on Nuclear Waste and industry in one or more workshops to develop an overall strategy.

Similarly, the integrated decommissioning improvement program, IDIP, lessons learned for decommissioning and waste incidental to reprocessing, WIR, and the WIR standard review plan will be key factors in this strategy.

Skills. We will develop and maintain critical skills such as health physics, ground water hydrology and environmental science, and assure knowledge management especially regarding decommissioning lessons learned.

Resources. We will cross train staff to enhance fungibility and to provide flexibility and prioritize and stage our work to incorporate the use of critical skills as needed.

For infrastructure. It will be necessary to maximize our use of technology, including our website, and pursue close coordination with the Office of Research involving the development or improvement of analytical tools for performance assessment and dose modeling to

support licensing actions.

For our organizational structure. We will continue to ensure that we have a highly competent staff and our culture will be adaptive to change. For example, we will adjust our structure to accommodate emerging needs such as consolidation of decommissioning functions to create an agency center of excellence for this important function.

To assist the staff in achieving these objectives, the Commission will clearly play an integral role. They will see a number of key Commission papers in the near term.

For example, you will see the decommissioning consolidation paper. You will see our prevention of legacy sites rulemaking which grew out of our license termination rule analysis. You will see our Commission paper dealing with a strategy for low-level waste program. And you will see our draft final waste incidental to reprocessing standards review plan. This concludes my remarks.

I look forward to your questions and our discussion. Mr. Brach.

MR. BRACH: Good afternoon, Chairman, Commissioners. We will now discuss some of the challenges facing the spent fuel storage and transportation program and our strategies to meet these challenges.

Nuclear power plants continue to need to increase their spent fuel storage capacity to support plant operations. In many cases, this requires movement of spent fuel through dry cask storage to maintain operational capability in a spent fuel pool, including for example to maintain full core offload capability.

There are currently, 38 licensed or operating independent spent

fuel storage installations. We expect in the next few years that there will be over 50 storage facilities in the United States.

The growth in storage facilities and the need for nuclear power plants to store more fuel is also bringing technical challenges in areas such as high burn-up fuel, burn-up credit and storage term.

We have a number of collaborative efforts underway with the Office of Nuclear Regulatory Research, the industry, Electric Power Research Institute, and Nuclear Energy Institute and others to address these challenges.

We have and continue to experience an increase in stakeholder interest in spent fuel storage and transportation at the National, State and local levels.

As greater attention is focused on Yucca Mountain considerations, the planned Private Fuel Storage facility, along with the increase in the number of storage facilities across the United States, we anticipate this high level of interest to continue to grow.

The recent DOE decision to pursue a standardized canister design clearly has implications for the NRC. The new DOE direction brings a need for close coordination between the Spent Fuel Project Office and Bill Reamer's division, the High Level Waste Repository Safety Division and other NRC offices who assure a coordinated seamless review by our organizations of the multiple components of a transport, aging and disposal canister system.

Changes in the national strategy approach to spent fuel management may impact the spent fuel storage and transportation program. Activities such as recycling, reprocessing, may result in an

increase in transportation activities.

In addition, increased spent fuel storage either at existing sites or away from reactor sites may increase demands for storage and or transportation.

Continued monitoring of these activities and outcomes will help us position our program and anticipate the demands for future work.

Slide 19. Given the challenge, let me discuss now, a few of our strategies and considerations for building our organizational capacity to meet the program needs.

Our first strategy is to be innovative by using risk-informed performance based approaches and establishing challenging performance measures to assure a safe, sound, efficient and effective regulatory program. The key to our program and our success is our staff.

Maintaining our skill, our staff, our resource competency and capability is critical. Expertise in technical areas such as criticality, materials and transportation are important, yet, sometimes hard to find expertise.

Based on our understanding and anticipation of the future industry needs, we have reviewed our resources to align our structure with these industry needs. We also augment our program with support, for example, from Research and contractors as needed.

To enhance our infrastructure, we are striving to engage both domestically and internationally in storage and transportation activities to leverage the experiences and knowledge gained by others.

Based on our experience in reviewing the first dry cask storage

license renewal and subsequent Commission direction, we are reassessing the license terms for both storage facilities and cask certificates. We will provide the Commission a paper on this topic in June of this year.

We are continuing to improve our infrastructure through advances in our rules of engagement, interim staff guidance development process, and response to industry feedback.

We also now are initiating work on risk informing the storage standard review plan.

The High Level Waste Repository Safety Division and Spent Fuel Project Office staff have already begun management and staff level interactions on 10 CFR Part 71, transportation, Part 72, storage, and Part 63, disposal requirements and review process for the DOE transport, aging and disposal canister design review.

And we plan to expand this activity to other offices as appropriate. We continue to monitor DOE's progress on this new program development.

The Spent Fuel Project Office has a team of highly technical staff engaged in resolving important and complex technical issues. My challenge, my staff's challenge, is clearly to continue this effort while at the same time, questioning and seeking novel approaches to problem resolution and finding more efficient and effective ways to implement our program. Thank you. Margaret.

MS. FEDERLINE: Thank you very much, Bill and other colleagues. In hearing our presentation in February, 8th on the Materials Program and our presentation on the Waste Program today,

we hope it has provided you with a view of just how diverse our programs are in NMSS. But I think the key that we would like to present to you today is that we must systematically look at these challenges and even though the challenges themselves very different, we must have a systematic approach to ensure that we tackle the challenges across the office.

Now, as in the materials area, many scenarios are possible presenting significant challenges. As we've described, they can arise from many areas, legislation, industry needs and other things. We believe that preparing for a specific scenario to the exclusion of others, will not lead to success.

As a result, we've used the organizational capacity model as a systematic tool to look across the possible challenges that may come our way and to define common strategies and attributes that could contribute to our success under more than one scenario.

As you would expect, there are a number of cross cutting elements which if leveraged, can enhance our success. I only have time to touch upon three of those today, strategies, resources and infrastructure.

Now, a common strategy in the Waste and Materials Program is the use of risk-informed and performance based approaches, innovative approaches in doing our work differently to increase efficiency and effectiveness.

In the High Level Waste Program, of course we pioneered the use of risk-informed, performance-based approaches through the development of Part 63. And we are using this approach to focus our

pre-licensing interactions with DOE.

Risk-informed, performance based thinking in the decommissioning program as was discussed earlier in the presentation, has allowed us to address more realistic exposure scenarios for decision-making.

In the Spent Fuel Program, we are initiating efforts to risk-inform the Standard Review Plan to ensure safety while increasing efficiency and effectiveness. And of course as I mentioned earlier, across all of our programs, our goal is to set more robust performance measures as goals in our program and as I mentioned in our decommissioning program, we have set a goal of increasing timeliness of reactor license termination reviews of 30% over 3 years. And in fact, our staff is achieving those through systematic changes to the program.

Another key strategy which is resulting in improved connectivity in the Materials Program as well as in the Waste Program is to increase interaction with our stakeholders to better understand their concerns and the concerns of the public and to anticipate the needs of licensees and stakeholders.

For example, in both spent fuel and the decommissioning areas, we have conducted what we believe to be very effective licensee interactions. We are listening closely to what our licensees tell us and we have systematically incorporated suggestions into our program as Larry discussed in the decommissioning area.

We have enhanced outreach to the medical community and transportation stakeholders, in particular, and this is improving our coordination and we are reaping the benefits of that.

We are also working proactively with our local, state and Federal partners, particularly EPA and DOE, to establish networks at all levels and to lay the groundwork for effective issue resolution before issues develop.

These networks have been particularly valuable in the removal of radioactive materials from Safety Light and achieving agreement on a common approach to Federal guidance. Now, the key to success in our programs now and in the future is our staff.

Many NMSS challenges require expertise which is extremely hard to recruit at competitive salaries. As we look ahead, we must employ innovative strategies for developing and retaining a balance of experience while learning and maintaining core skills.

Cross training is an important strategy and I will just mention that one of our best ground water hydrologists has become one of our best fire protection engineers. And under this effective cross-training strategy, both the challenging work and the benefit to the agency have accrued. We must also locate and retain other critical skills such as plutonium chemistry, materials science, health physics and performance assessment.

Our senior executives service recruitment champion is using innovative strategies to obtain these skills working with all the tools that the Office of Human Resources has provided us.

We are finding however, though, that the skills are not the only important thing. We are finding that we must look for inquisitive, intelligent, curious people who are eager for new challenges and welcome and are stimulated by change.

Our performance assessment groups have created such an environment. And I meet with each of these young people as they come into the agency and work with the group. And they are extremely attracted by the stimulating environment they work in.

Now, given the resource fluctuations, we need to also ensure that the Center skills and capabilities are maintained and used throughout the agency. And the Center is in fact in this week meeting with various parts of the agency.

Finally, I want to touch on the importance of knowledge management and maintaining our infrastructure including the framework, the regulatory framework and review tools.

A systematic process of knowledge management may take different forms and it is really important to assess the most effective means of knowledge management for each program.

For example, as Larry mentioned in our decommissioning program, we are developing lessons learned, working very cooperatively with the industry and other stakeholders and this information will be very valuable not only to our own staff, but also to the next generation of decommissioning plans.

In the High Level Waste Repository Safety Program, we are systematically documenting our work to address key technical issues. A program such as high level waste with a horizon on the order of tens of years as opposed to years must have an effective tool to retain the knowledge as staff enter the program and then, eventually retire.

Resource constraints limit our ability to invest in the infrastructure and review tools. But we have reversed this trend and

believe it is extremely important to invest in the infrastructure. This is particularly critical at a time when many of our senior technical experts are nearing retirement.

So as you can see, we are identifying cross cutting actions to take across the office to leverage across the scenarios that we are working on.

Time does not allow us to go into all of these today but we hope we have illustrated the process that we're using and we hope that our presentation has provided a view of how NMSS is adopting to a diverse set of challenges. Our goal is learn from the past, employ creative solutions for today's issues and be flexible for the future.

This completes our remarks and we'd be very happy to answer any questions you may have.

MR. REYES: Chairman and Commissioners, that completes our prepared remarks. We are now available for questions.

CHAIRMAN DIAZ: Thank you very much. Commissioner Merrifield.

COMMISSIONER MERRIFIELD: I appreciate all the time and efforts that goes into makes these presentations. And I know the staff works very hard on it.

NMSS is a part of our agency which has a wide diversity in flavor of issues that it grapples with. And I hope next year when we have this briefing, we can get beyond the process issues.

We spent a lot of time here talking about process and it has to be talked about at an appropriate point, but I think more of a flavor for the work that's going on and the real details to help the Commission

get a flavor for what we are going to have on our plate coming forward.

In that regard, in the High Level Waste Program, the staff has identified and addressed a path forward for 256 of the 293 key technical issues.

Now, the 37 key issues left, 8 are associated with resolving issues with the USGS survey and 29 are waiting on additional information from the Department of Energy.

Recognizing that not all key technical issues are the same, some being more complicated than the others, of the remaining 37, are there any that are of greater concern to the staff than others? And additionally, do we have a path forward to resolving these?

MR. REAMER: Commissioner, the remaining KTIs, involve 29 key technical issue agreements where we've asked the Department for additional information.

COMMISSIONER MERRIFIELD: Department of Energy?

MR. REAMER: Yes. Of those 29, we have rated 8 of them as of high significance to repository performance.

We have identified 12 as being of medium significance and 9 as being low. Now, of course that's based on a 10,000 year compliance period.

With respect to the additional 8 that are on hold because of the USGS email issue. None of those we have ranked as of high significance. Five of them, we believe are of medium significance and three would be low.

Path forward, with respect to that latter group, is to review the Department's technical analysis when that document is made available

we hope in the near future and then understand the path forward based on that.

With respect to the additional information, all that's really in the Department's court to pick those up if they desire in advance of the license application, come back with some additional information, but they do have the option of addressing it in the license application, it's their judgment.

COMMISSIONER McGAFFIGAN: Mr. Chairman can I ask a clarifying question? They said during the presentation, 25 percent of the agreements, I assume that 25 percent of 293 is potentially affected by the USGS potential falsification.

And so, you just said is accurate with regard to everything but the USGS falsification. But if 25, 75 agreements are reopened and have to be reassessed, then there's more work to be done, right?

MR. REAMER: There is potentially more work to be done. The assessment that up to 25% of a our agreements may need to be re-assessed is really based on a more broader set of considerations than just the USGS infiltration issue.

It's also impacted potentially by the canister approach, the changes to the design, that that will involve for example, the waste package. And also, the one million year compliance period that the EPA standard based on the proposed rule would come forward.

What we've done Commissioner, is say, based on all of those changes, and looking at the total universe of 293, our preliminary assessment is to up to 25 percent, we would need to go back and reassess and take another look at it.

COMMISSIONER MERRIFIELD: On some of the backup slides you have given us not that they will be provided generally, but under the decommissioning low-level waste project summaries on page 8, deals with work we are conducting for incidental waste consults, waste reprocessing relative to INEEL, the Idaho National Engineering and Environmental Laboratory and Savannah River. How is that going, and are there any issues that you believe have arisen that are going to need Commission attention at this time, or in the near future?

MR. CAMPER: I think the waste incidental to reprocessing issue, whether it be for Savannah River site tank 18 and tank 19 which is ongoing now or at Idaho National Lab, which is the entire tank farm or the one tank performance assessment we are doing in Hanford. I think they are all going very well at this point.

I think what we see is a very rapid rise on the learning curve by DOE in terms of the types of analyses and questions that they can expect from our agency.

I think in all fairness to them, when they first went into this process, they were not accustomed to dealing with an independent regulatory agency of our type.

I think they have worked diligently though, to address our request for additional information. And we see improvement now as we explore those submittals.

COMMISSIONER MERRIFIELD: These are important issues for the respective states. They are important issues for us to resolve as a Nation and I think the work we do needs to be timely and needs to be effective, it needs to be efficient and it needs to meet our

strategic goals. But I think there is true value we can add and I look forward to the work the staff has done in that regard.

MR. CAMPER: Thank you.

COMMISSIONER MERRIFIELD: On the issue of decommissioning problematic sites which is slide six of your decommissioning backup slides, some of the issues we have in front of us are the Fansteel Site, which obviously has a lot of challenges, Safety Light which has made its way onto the Super Fund. And some of the unlicensed sites which we are grappling with right now and there are financial issues or ownership issues. I'm wondering how that is all going and if you can just touch quite briefly as well in terms of our decommissioning and Memorandum of Understanding with EPA and how that factors into all of this?

MR. CAMPER: Yes, with regard to Fansteel, in fact, we are meeting with them this week. They have changed their decommissioning approach a number of times, gone through bankruptcy, reorganization, and so forth. And that has caused delays.

I think at this point, my discussion with the staff would lead me to believe that we are making progress. It is still some lifting at that site. we are making progress. Safety Light of course is on-going with EPA and running its course.

Salmon River, you mentioned has been a challenge for us. This is a site where we were able to reach the current site owner who bought the land at a very reduced price and planned to build there.

COMMISSIONER MERRIFIELD: A dollar, wasn't it?

MR. CAMPER: Yeah, exactly. All of a sudden, the Federal

Government shows up and wants him to decommission the site. We have communicated with EPA. We are working with them in their process to see if how the site will score. I don't think the site will score, the qualification on the MPF but we shall see.

We are briefing very shortly, Senator Craig's staff on this site so there is an awareness. In fact, you had an interest in that Commissioner.

The idea behind that briefing is to make sure that the Senator understands the status of the site and the efforts we are making to try to work with the EPA to make something happen, but that may not work.

AAR, we continue to work on. You might require that AAR is the site that the Commission had a lot of interest in as a pilot if you will, for a phased approach to institutional controls.

Some of their dose analysis work required several rounds but we are working with them to get to those technical issues. We still believe that site will work out for institutional control, and under a phased approach, or a reduced approach. But we've got to work through the technical assessment issues first.

COMMISSIONER MERRIFIELD: Well, Mr. Chairman, these are difficult sites and in some cases, we have the capability to do some work on them and others may well be beyond our capability and financial capability to resolve them. We may need to seek additional attention from Congress to help us out. But I do again, appreciate the staff's attention to these.

These are part of our legacy and I think we have done a good

job moving forward in addressing them. If I may make one last comment. Mr. Chairman, I may have to leave some what early today. As you know, this is always one of my most favorite meetings every year. So I regret having to pop out before it comes to a conclusion but that is obviously not to be taken as any indicator other than I have something else going on. So thank you very much.

CHAIRMAN DIAZ: Commissioner Jaczko.

COMMISSIONER JACZKO: I wanted to start a little bit with some of the points that Commissioner Merrifield raised with regard to the waste incidental to reprocessing. Seems like there is a lot of work on that particular plate, one of which is the development of the standard review plan for this review and in the backup slides or the presentation, one of the things you indicated was that the plan was to provide a draft of the standard review plan to the Commission, first quarter of 2007 so sometime end of this year. It will take some time, certainly for the Commission to review and get that finalized.

Also, you indicated we were doing about 3 to 4 of these reviews a year. So by the time we've got a standard review plan, potentially, we could have any where from maybe five reviews already done, which in my mind raises some concern about the kind of the order of that effort. If the goal of the standard review plan is to have a process in place so that it's clear and understandable how we doing these reviews, we might want to try and reverse that. So maybe you could comment, are there any ways we can accelerate getting the review plan done before we actually do some of the reviews?

MR. CAMPER: Well, that is a very challenging and very astute

question that we asked ourselves when the 2005 Defense Authorization Act came along. And literally, we had hit the deck running right away. The reason that we were able to proceed and do the reviews that we've done and the ones we have ongoing while developing the standard review plan, frankly is because we had done four consultations historically with the Department of Energy.

And so, we knew how to conduct these waste determinations and we had technical staff and excellent technical staff, actually, on board that allowed us to get moving.

Remember that the schedule for these determinations is driven principally by the Department of Energy as a result of its Federal Facilities Agreement that exists between the Department of Energy and the State of South Carolina. And the State of South Carolina is clearly interested in as they have made it extremely clear in all of their meetings with us, expediency, expediency, expediency. They have expressed trouble, concern about the length of our reviews already but we believe that the time that we now take, about nine months is a reasonable time given the nature of the reviews that we are conducting. It's down from 15 months historically by the way. So we had to hit the deck running.

We are developing the Standard Review Plan. We are incorporating the knowledge that we had before, plus what we gain as we go now, as we conduct these reviews. The draft SRP will be published in our current schedule in May, the draft RSP for comment. And then the Commission will receive the draft final -- that's an oxymoron -- but a draft final SRP.

COMMISSIONER JACZKO: Are you anticipating -- are some of the approaches that we are taking right now with the reviews going to be invalidated by changes in the SRP?

MR. CAMPER: No, we don't think so, no.

COMMISSIONER JACZKO: Will it largely follow what we are doing?

MR. CAMPER: It will follow what we are doing. Based upon our historical experience --

COMMISSIONER JACZKO: And you are getting that sense that we are not going to get public comment that tells us this approach is going --

MR. CAMPER: Well, I think we will get public -- for example, we decided to publish a few months ago, our updated concentration averaging guidance which was built upon our previous Branch technical position, so that the Department of Energy would have an adequate amount of information to make a determination as to whether or the waste in these tanks is in fact class C or greater than class C.

We received a number of comments, for example, from NRDC, and we are meeting with NRDC later this month. They took exception to the staff's position on concentration averaging in that guidance. They actually asked to withdraw it. But so there will be comments on the process. But, I still believe -- we still believe that our historical experience, the capability of our staff, the experience we are gaining currently, will continue to demonstrate that our review process is appropriate.

What is important about the standard review plan –

COMMISSIONER JACZKO: I'm going to cut you off right there. I want to get in one more question. I appreciate the answer. I think that is helpful.

This question on the high level waste issue, right now, we don't have a time or deadline or a date certain for a license submission from the Department of Energy.

But I guess I'm wondering, do we have a date when we might have a date. Have they given us any indication when they are going to give us that information?

MR. REAMER: I think our sense is late spring, summer, potentially. When you look -- they are completing a process that's ongoing to make the critical decision which probably won't be complete until May and their belief that they really need to complete that in order to be able to lay out the plan of work to complete the application, you're looking late spring, summer.

MS. FEDERLINE: They have embarked on a very systemic process which I believe we think is a good process which unites their planning, their budgeting and their technical work.

And their decision on, they call it concept design one, will be later in the spring or early in the summer and it will be the result of a thoughtful process of going through that. So I think we are feeling positive about that rather than just another date.

CHAIRMAN DIAZ: Thank you.

COMMISSIONER LYONS: Well, Luis, Margaret, I want to start by complimenting you and your fine staff on just the most impressive

range of accomplishments in the last year. I appreciate that Commissioner Merrifield stopped for a particular focus on the decommissioning activities just very, very impressive.

I was going to just highlight things like Trojan, Main Yankee, the work that you are doing on WIR, waste incidental reprocessing, I think is truly commendable.

Your work on the Baltimore fire, tunnel fire, very, very important. And the success -- I guess that's what we call it -- at least completion of the PFS process is also most commendable.

By way of, I guess first question, Bill, you talked about the Center and its importance in the High Level Waste Program. And I very much agree with you. I was most impressed with the work being done at the Center. Is there anything that the Commission could be or should be doing to help in your quest to maintain the health of that Center?

MR. REAMER: I would like to come back to you perhaps with an answer. At this point, I would say no additional actions or policy issues that I see for the Center to take on.

You made it very clear as a Commission, as a body that you want me, as the manager of the Center's work here, to be looking at that. Center representatives are here for this meeting today. They are meeting tomorrow with representatives from Nuclear Reactor Regulation. They also already have contacts with the Office of Research. So I think we are actively working it. But if issues come up, we will bring them back forward to you.

COMMISSIONER LYONS: I would like to mention one point

that I picked up in reading the background on the Center and at least flag it for your discussions with folks from the Center because it did concern me. And that was the trend over years as we move toward the future, to have more small projects.

I would like to make the observation and just going back to the only experience I have of Las Alamos that I worry very much when I see a trend towards a lot of small projects, at least in the case of experience that I have had. That can very easily lead to if you will, almost micro management of large numbers of small projects with very tight deliverables. And in my experience, it makes it much harder for high quality technical staff to really become engaged in the broad technical aspects of key issues.

So, at least, take my concern that as we move to too many small projects, we may been undermining the effectiveness of the Center. And if you find I'm wrong, fine, but at least, I would hope that would be explored.

I wanted to ask a little bit about the -- for just a few comments on the National Academy Spent Fuel Study, Transportation Study that was just released. I've been on travel. I have not actually seen the study. I have seen our press release. I seen a number of newspaper articles.

I actually was in meetings at Keystone over the weekend with folks who served on that study.

They seemed to be very surprised by some of the newspaper comments, particularly in the San Francisco paper. And I'd just be curious, these are people who were on the study who didn't know

where the San Francisco report was coming from.

Can you comment a little bit about your perceptions of that report and perhaps the accuracy of some of the newspaper reports?

Mr. BRACH Yes, Commissioner, let me try. One, the National Academy Science Study you are making reference to was released last week. It is almost a 3 year study that they completed as they examined the safety and security of the transport of spent fuel.

This is a study that was supported in part by NRC as well as other Federal agencies, DOT, DOE and I believe EPRI.

The National Academy of Science concluded and I have some of the phraseology in front of me because I think it is important to be sure to summarize it correctly. They concluded there were no fundamental technical barriers to the safe transport of spent nuclear fuel and high level radioactive waste in the United States. They also concluded that there is a low radiological risk activity with regard to this transportation.

That is the underlying, if you will, conclusion, finding of the study and it's one that quite frankly, I believe myself and staff as well believe, that the programs that are currently in place, both the NRC and sister agencies, DOT that are involved in regulation of transport of spent fuel, have a program that provides for the safe and secure transport of radioactive materials, both today and I think the Academy study is looking into the future as well. I believe the study recommendations confirm our position in that regard.

There were a few other recommendations and findings that the Academy had directed to NRC. One, for example, is the

recommendation to consider longer duration engulfing fires as a potential severe accident consideration would note that the Commission to the staff with regard to plans for the package performance study has also asked staff to consider such a scenario in full-scale accident testing.

The reference to the article in the San Francisco paper over the weekend, I believe is in reference to one of the recommendations that the Academy had. And that was to conduct an independent review of transportation security. A couple of comments I would like to make in that regard.

One, the study when it began was focused principally and solely on the safety of transport. And as the study was underway, they recognized that security of transportation was as an important element as well. And that was an activity that later on in the study, they started pursuing.

The Academy Committee had some cleared members and some members of the committee that were not cleared. For those members of the committee that had appropriate clearances, we, the staff, did provide to those members an overview of the studies, security assessments and evaluations that we, the staff, have been carrying out in the post 911 era.

The Academy recognizing that some of those committee members were cleared and some uncleared, were not able to share with the other members the information that we were able to impart to a few of the committee members.

That led in part, I believe, in discussions with the Committee led

in part to their recommendation that since the entire Committee did not have full access to the information with regard to security, that recommendation on their part that perhaps a study to focus on security by appropriately cleared individuals may be a consideration.

The transportation -- excuse me, the San Francisco article over the weekend, I believe was characterizing a statement that the Academy was restricted from or not allowed access to information with regard to security. From my understanding that is not correct.

But I believe that was perhaps the reporter's reading of the background information.

There is one other point I would like to add as well. You may recall the National Academy completed a study on spent fuel storage last year. They addressed as well spent fuel pool, but also dry cask storage.

We did have with that committee, very detailed classified discussions with regard to the security assessments and evaluations that we, the staff, were carrying out as it relates to dry cask storage.

I just want to mention that many of the analytical models and techniques that we, the staff, were using in our security assessment for spent fuel storage, were the same modeling analysis and techniques and actually the same staff performing these analysis as we were carrying out with regard to transportation consideration. So in that regard, I'm confident, Sir, with regard to the basis and recommendations on our part with regard to the safe and secure transportation.

COMMISSIONER LYONS: I appreciate that clarification very

much. And to add to and reinforce that, I'm sorry, I'm over time a bit but I think it is a important point. I received email over the weekend from the staff director at National Academy expressing great concern that that article in the San Francisco paper misinterpreted comments and in fact was commending the staff of the Commission for sharing as much as possible with the suitably cleared members. And then just in the last day and a half, I had been at a conference where, I can describe in a number of ways, Dick Meserve, who has many titles including the head of the National Academy Organization to which that study report was also very concerned about the characterization in the San Francisco paper. So I appreciate your clarification and it is certainly consistent with what I heard from the National Academy.

MR. BRACH: Thank you.

CHAIRMAN DIAZ: Thank you Commissioner Lyons. I don't know, let's see, one of the things I mentioned when this meeting begun is the fact that we have a certain amount of uncertainty in the type of things that NMSS waste arena is going to be facing. And I understand that the staff is making significant efforts in trying to address this. But still, the reality is that we don't know.

And I think it is important that you keep trying to address these issues. At the same time, life keeps going on. And we need to keep moving ahead.

In this regard with the issues of the high-level waste, Bill, what's happening to the technical expertise in the high-level waste arena?

Are we able to be fungible with the staff that we have? Are we going to be able to maintain the capabilities that we need two years

from now?

Is this being really, you know, planned with flexibility but at the same time, we need to be able to discharge those responsibilities when the time comes?

MR. REAMER: Yes, sir, and I spoke in my remarks about that important balance between maintaining the continuity but also training our people in other areas. And we have had success in doing that through rotations, for example, and details of people into Nuclear Reactor Regulation or into other aspects of NMSS.

Also, making performance assessment expertise available for case work in the waste incidental to reprocessing area.

So I think we are being successful in maintaining that balance and we are maintaining our core capability, technical capability because the work is still there in the high-level, and it's very interesting and very attractive to people.

CHAIRMAN DIAZ: Could you tie this in to the issues of environmental reviews and the capability to conduct environmental reviews or comment on the environmental reviews that we might be, you know, facing in the new nuclear reactor arena?

MR. REAMER: We do have a limited amount of environmental expertise and we have made that available within NMSS. And I think we've offered to Nuclear Reactor Regulation as well that we have that capability both here and also at our Center for Nuclear Waste Regulatory Analysis which has given us a lot of environmental support in this spent fuel storage area. So we are working that.

CHAIRMAN DIAZ: Is this an area where we need to actually

position ourselves better, have better resources to conduct environmental reviews in a timely manner?

MR. REAMER: Within NMSS, I believe the answer is we are carrying out our responsibilities and we are capable of doing that.

MS. FEDERLINE: Bill, if I could just add for a moment: I think the important thing that we are trying to do is prepare the fundamental skills and to answer Commissioner Jaczko, even though we don't have a standard review plan for WIR, we have the fundamental technical guidance on the review of performance assessments.

So everyone who needs to conduct a performance assessment has that fundamental technical guidance and environmental reviews can be conducted for high-level waste or decommissioning or reactor reviews. So our focus is on developing the fundamental skills and guidance which can then be applied across the agency.

CHAIRMAN DIAZ: Okay. Let me go to the decommissioning area. And I kind of heard two different messages that no doubt we have done very, very, well and we have taken a series of complex problems and been able to achieve resolution.

At the same time, after we make all these decommissioning plans and our preparations and so forth, I heard that we still have significant challenges. I thought we had already gone past the peak of the significant challenges, that we now have a simple problem in front of us and I get concerned when we keep piling challenges upon something that I thought you had been very successful at.

MR. CAMPER: Well, thank you again for the compliment of success. We have been, but no, there are a number of those sites that

are out there that are still very challenging.

All the complex material sites for example each of them is unique. Almost every one of them has ground water contamination, sub-surface soil contamination, site characterization is always a problem.

CHAIRMAN DIAZ: But we know how to handle them.

MR. CAMPER: Of course. Absolutely.

CHAIRMAN DIAZ: So the way of dealing with them is already very well set and we know how to deal with them.

MR. CAMPER: Yes, it is.

CHAIRMAN DIAZ: So it is not a big challenge but a minor challenge.

MR. CAMPER: It is a minor challenge.

CHAIRMAN DIAZ: I'll go with that. One of my pet peeves, I can't help it, it has been several years is burn-up credit:

MR. REYES: Yes.

COMMISSIONER McGAFFIGAN: When is the direct final rule. That's a separate issue.

CHAIRMAN DIAZ: When are we going to be able to say, yes, there is a physical reality and we are going to be able to give burn-up credit where it's due?

MR. BRACH I wish I could give a specific date but I cannot. But on a positive note, we have discussed burn-up credit for some time.

CHAIRMAN DIAZ: I know, I been here for 10 years.

MR. BRACH I do feel more positive at this point in time that we have had a success path forward.

I mentioned briefly in my opening comments that I offered on the spent fuel project program that we have an effort underway with DOE, EPRI and Research right now and we are actually successful in this past year acquiring some burn-up data from a foreign country. And there is additional data that we are in the process of obtaining. You may recall previous discussions -- we all have the objective and the goal of burn-up credit but what's been holding us back, holding industry back, is the lack of technical data that would support our ability to allow burn-up credit.

CHAIRMAN DIAZ: How about the French data?

MR. CAMPER: That is the data I'm making reference to, yes, sir. That data is being acquired, and some of the fission product data has yet to be acquired.

But we have broad based collaborative effort to analyze that data, to develop the technical base. We have talked on previous occasions on our interest and effort to obtain that data. We are now in the process -- we have some of that date and more to come. I think we are I want to say a success path forward. I don't have a specific date to give you. It's not going to be this year. It's going to be probably the next two years.

We will be in a position --.

CHAIRMAN DIAZ: Well, I don't know. See, Madam Secretary over there, she told me that when I know when I'm leaving, which I don't know, she said give me a list of things that you want to resolve and she will take care of it.

She told me that and so, burn-up credit, Madam Secretary, is

on that list.

MR. REYES: Chairman, we have paid our colleague from the other country, the money has exchanged. We are getting the data so I think the staff has a clear path to resolve that on the technical issues.

CHAIRMAN DIAZ: The Executive Director for Operations will note that now that the Secretary of the Commission has an action item.

Mr. REYES: I got it.

COMMISSIONER McGAFFIGAN: Let me just follow along on one other item that should take about a nano second, maybe a little longer to write to paperwork. But you are supposed to give us a direct final rule fairly soon to resolve the NRR, NMSS dispute over criticality of spent fuel pools. Is that going to get to us soon?

MR. REYES: Let me look to the staff for a schedule.

MR. BRACH: We're working closely with NRR. The answer is yes, it's being worked on collaboratively with our two offices. We are developing the basis now with regard to supporting a rulemaking to bring closure to the criticality issues.

COMMISSIONER McGAFFIGAN: We look silly in that area to be honest with you. Every time I have a -- usually, it's been Dyer, because he just happens to have his periodic just after the latest article comes out in "Nuclear Fuels" or "Inside NRC" and they always blame lawyers, so you should not laugh too much. But hopefully, we can get that one behind us. And I'll be here for a while. So if you don't, I'll keep bugging you. Although I would like it to be on the Chairman's list.

Next item, the Center for Nuclear Waste Regulatory Analysis, I agree with – I have not been in FFRDC but I understand exactly what Commissioner Lyons is talking about.

But I would also point out there are legal issues we have to be very aware of in trying to give extra work to the Center, that we sold the Center to the OMB, on one ground and we can't have them working on something else. There are laws, OMB Circulars, and we just have to be very careful as we try to give them work and I'll just leave it at that.

As long as it is within the law, I'm willing to try to give them some work. It would be better if it were more substantial as Commissioner Lyons said than a bunch of small projects.

Low-level waste, I'll just say in passing, I don't think it is our regulatory responsibility but I hope somebody is looking at the anti-trust implications of the various transactions that Envirocare, whatever it's going to be called at the end of this process is involved in. I worry about a situation where they sit abreast of low-level capacity for most of the country -- and that's something for the Justice Department or the Federal Trade Commission, whoever looks at anti trust matters to do. That is not a message to the staff. That's a message to whoever is listening. But that definitely unless Texas comes on board, we are going to have a single entity controlling, have a monopoly position and monopolies tend to maximize profits the last time I took an economics course. And I think this particular entity would do that.

The TAD program, could you tell me what -- this is the old multi-purpose, canister program. What is the impact?

I asked this repeatedly, before, what is the impact at Trojan, Main Yankee, Yankee Rowe, Hadam Neck, Big Rock et cetera, et cetera, Rancho Seco, where stuff is already in duel purpose NRC canisters. And they don't have a spent fuel pool any more to muck around and transfer into a new package. I hear DOE saying that they want to make use of what is already there and they not going to re-invent things.

Is one of the things they are not going to reinvent, the stuff that's already in NRC certified, dual purpose canisters?

MS. FEDERLINE: Commissioner McGaffigan, we asking the same questions of DOE.

COMMISSIONER McGAFFIGAN: Do we know the answer?

MS. FEDERLINE: They have not told us the answer yet but we are continuing to ask the questions. it is important that they address this as an integrated national program, not as a repository program. We need to understand --

COMMISSIONER McGAFFIGAN: I think it would be a safety disaster let alone a economic disaster to go and take the stuff out of NRC certified duel purpose casks and ask people to take it somewhere, put it in a spent fuel pool, put it in the new cask because it is now the newest swellest thing and send it off to the repository if it ever opens. I hope that this TAD program turns out to be some sort of over pack on what we've already approved rather than something new.

MR. REYES: We are waiting for the answer.

COMMISSIONER MCGAFFIGAN: I'm sending another message in case anybody is listening.

The QA issue at Livermore which was discussed in a recent trade press publication, one of the people quoted in that article said this is actually worse than the USGS falsification issue.

What is the path forward for discussing the Livermore QA issues on which we disagree with Bechtel, SAIC, and I guess with DOE? And how important is the research that we are calling into question because of the lack of a QA program?

Could you add a sentence to help those of us that don't know what you are talking.

COMMISSIONER McGAFFIGAN: Okay, there was an article in the trade press and apparently, the staff has sent a letter to BSC saying that as a result of an audit last year, in which the staff participated, they have come to a different conclusion from DOE's contractor as to the quality assurance of some Livermore work done at the repository. And as I said, the press article indicated that this could be a bigger deal than the USGS falsification, in view of this one unnamed observer because some of this Livermore work is pretty fundamental to the case that DOE may ultimately be making at the repository.

So if it is more background, please provide it in your answer but it sounded like a big deal.

MR. REAMER: It involved an instrument that clearly was not calibrated for the use to which it was being put.

The contractors knew that and went ahead and used the instrument as well. Then an audit was conducted by the Department and we identified this issues for them in that audit. Our observers

identified it for them and they did not really respond in a way that we thought flagged it as an important issue. So there were two dimensions to what we covered in our letter.

I think the ball is in the Department's court. They clearly know that this is a potentially significant issue, they are looking at it and they need to respond.

I can't really get to your point of whether data might be invalidated or work that is fundamental to the application. I think we need to see how the Department responds to our letter.

COMMISSIONER McGAFFIGAN: But this was over a long time period, no calibration of moisture humidity measurement?

MR. REAMER: And I think again, even the dimensions.

COMMISSIONER McGAFFIGAN: This is Lawrence Livermore National Laboratory, as the contractor, just to be clear as to what we're talking about.

MR. REAMER: Yes. I think again, I have to say that the Department needs to look at our letter, look at the issues and come back to us.

COMMISSIONER McGAFFIGAN: What is the time period for that?

MR. REAMER: I don't have a specific date from the Department that they intend to provide us their response.

COMMISSIONER McGAFFIGAN: Is there going to be a second quick round?

CHAIRMAN DIAZ: If you want to have a quick second go around. Go ahead.

COMMISSIONER McGAFFIGAN: I'll take my turn. It's Greg's turn.

COMMISSIONER JACKZO: I'll take a quick second round. Back on the issue of waste incidental to reprocessing: One of the recent salt waste determinations, one of the key elements of that was the NRC indicated there is an important need for monitoring in order to validate some of the analysis that was done, that goes into the report.

Can you just comment a little bit on how the staff intends to do that and how to fulfill those responsibilities for the monitoring program?

MR. CAMPER: Yes, we have a monitoring responsibility under the Act of course. We identified several technical issues requiring monitoring to verify assumptions that have been made by the Department of Energy.

We indicated in our letter going back to the Department of Energy at the end of December that these are the issues. We are trying to follow, a risk-informed approach, performance based approach whereby DOE will identify the monitoring techniques to be used.

That information will be coordinated with the State of South Carolina. We will be involved in those discussions. A monitoring plan will be created and then, we will monitor the monitoring plan over time, will develop inspection like procedures, not inspections per se because it is a consultation, but inspection like procedures where we will be looking at these activities over a long period of time. Monitoring is designed to determine if in fact, all of the performance objectives in Part 61 are being met.

COMMISSIONER JACZKO: What happens if we find that some of these performance objectives are not being met?

MR. CAMPER: We are required to provide a notification report to the Department of Energy, to the State of South Carolina, and in the case of the salt stone, or Idaho or whoever is out there and to Congress.

COMMISSIONER JACZKO: Under the Act, is there any further mechanism then for any one to take action based on that?

MR. CAMPER: No, it is not articulated in the Act.

MS. FEDERLINE: If we find out that their assumptions are not valid, in other words if the work does not hold up under the monitoring, they will be required to come back to us with an analysis that demonstrates how it does meet the performance objectives.

COMMISSIONER JACZKO: What if it doesn't at that point? What ultimately -- let's say we get to a point where we find that the analysis is invalid. What happens at that point?

MS. FEDERLINE: Well, the assumptions that I think are really are critical are to the waste form and the integrity of the waste form. So, it's possible that if they can't demonstrate the integrity of the waste form, that some changes would need to be made.

COMMISSIONER JACZKO: Who would have those changes?

MS. FEDERLINE: The Department of Energy.

In other words, they would have to resubmit an analysis that would demonstrate the performance to us using a new set of assumptions for the waste form.

CHAIRMAN DIAZ: Thank you. Commissioner Lyons.

COMMISSIONER LYONS: In one of the backup slides, there

was reference to on-site representative at Yucca Mountain. I honestly hadn't realized we had on-site representatives there. And I was just curious if you could discuss a little bit about their function in the overall program. I assume it's related to our assessment of the quality of the license application?

MR. REAMER: That's one element. I think conceptually they are our eyes and ears very close to where a lot of the work is being done. They provide a contact for us when we are looking for information, maintain an awareness of the work that's ongoing. But also, they are quality trained as well and can provide feedback on quality issues.

MR. REYES: It is parallel to a resident inspector office. We have a field office, staff with two very high quality technical people, some administrative support. They are there. They can go anywhere, they can look at anything. It is the same concept.

COMMISSIONER LYONS: Very good. These are actually out at the mountain.

MR. REAMER: In Las Vegas near the Department's offices where the Department and the contractor –

COMMISSIONER LYONS: They also have access to the mountain as needed.

MR. REAMER: Yes, they do.

COMMISSIONER LYONS: A question probably for Larry on WIR and certainly you've heard several other Commissioners express interest in that program as Commissioner Jackzo and others have. And I, too, am very interested in that very high visibility program.

I was just curious: Where we have a situation where South Carolina and Idaho, we have statutory responsibilities but we have requests from the DOE at Hanford, potentially West Valley, do we have enough resources to cover the range of requests, or I'm assuming if we have to prioritize, I would assume we have to take the statutory responsibilities, first. But I'm just curious if we are getting into a situation where we have to prioritize among the different WIR requirements based on resources?

MR. CAMPER: We do have adequate resources.

The WIR program is an appropriated budget item starting this current fiscal year.

We are working for example, at the Hanford site under an inner-agency agreement. And in our discussion with DOE, continuously revisit in periodic meetings with them, their prioritization scheme. And there is an integrated prioritization scheme provided to us from DOE for all activities.

We have not yet nor do we forecast a conflict between prioritization under the Act verses something done under interagency agreement.

If you saw any conflict like that coming, I'd hope you let the Commission know because again, these are very visible, very important.

MR. CAMPER: Any hiccups in WIR, we intend to keep your fully advised.

COMMISSIONER McGAFFIGAN: Is this prioritization scheme public?

MR. CAMPER: No, not necessarily. I don't believe that it is. Scott are you here? But the meetings we have with DOE in which these schedules are discussed are Government to Government closed meetings.

They have a federal facilities agreement between the State of South Carolina and DOE in which those closure schedules are public. But the prioritization scheme itself, Scott, that's is -- I don't believe that is a matter of public record.

MR. FLANDERS: Scott Flanders. No , the prioritization schemes are not made public.

DOE, as Larry said, we have a Government to Government meetings and they continue to reassess their priorities at all the sites and consultation and coordination with the states as well. So at this point, those priority schedules have not been made public.

COMMISSIONER McGAFFIGAN: I will give a hint to any member of Congress listening that they may want to take a look at the prioritization schemes and it just strikes me that those not being public isn't a swell idea.

CHAIRMAN DIAZ: Okay, thank you. Another one of our favorite subjects is the package performance study.

Now, we have had a breather, both technically and because we had told Senator, I think who was the Senator from out west that was very pointed, when are we going do these things. And Commissioner McGaffigan and I were there.

But 2008 seems to be an appropriate time in which we would conduct these studies. And there are technical issues that are going

to be coming from our interactions with Germany, with BAM. Just want to know whether the staff is preparing properly to have the right foundation, right data, the right structure so when the time comes and we really put that money to use for the package performance study, that we can go ahead with them.

MR. BRACH: I believe the short answer to the your question is yes, we are. I would note that the NRC Office of Research has lead with very close support from our office as well.

What you've mentioned, the effort to negotiate the agreement with BAM to exchange technical data on physical testing, that's in process. I will mention as well that the Office of Research has a paper coming to the Commission in the near future laying out plans and considerations for the package performance study in response to the earlier SRMs.

I would note as well, we discussed a couple of times already this afternoon, DOE consideration of the new TAD Canister System and the earlier Commission direction in the package performance study to consider testing a transport package that would have a fairly high likelihood of being used for transport to the repository.

So we are looking at the DOE consideration, the German activities as well as looking in the context of what would be the most appropriate time for conduct of the testing –

CHAIRMAN DIAZ: The Commission will need to know early if 2008 is the appropriate time.

MR. REYES: You will see it in the budget.

CHAIRMAN DIAZ: It looks like we will see a lot things in the

budget. Commissioner McGaffigan.

MR. REYES: Yes, you are going to see a lot of things in the budget.

COMMISSIONER JACZKO: We're going to be dazzled, I believe was the –

COMMISSIONER McGAFFIGAN: That was only on performance indicators.

MR. REYES: You got it. The budget I think you are going to faint.

COMMISSIONER McGAFFIGAN: Some of us are used to DOD numbers and we're still going to be rounding errors in DOD space. Okay, Secretary Bodman yesterday apparently talked about the fact that they are going to a cold repository less than boiling point of water repository as if it were well-known. Is that well-known?

Or was he essentially announcing it yesterday? Has that been communicated publicly before?

MR. REAMER: It's not been communicated directly to us. And at least, formerly, it has not been communicated.

COMMISSIONER McGaffigan: I welcome it to be honest with you because the Nuclear Waste Technical Review Board and John Garrick who was then at ACNW and is now at the Nuclear Waste Technical Review Board, were very clear that they thought that would reduce licensing issues significantly. And another issue that they are doing I think that will also reduce licensing issues significantly if it proves to be true for spent fuel pools for any fuel handling they have to handle at the site rather than dry transfer facilities. I think that will be a

step forward.

The issue of -- which of these do I go at -- the issue of igneous activity. You all sent a letter last week to the ACNW saying you disagree with ACNW on several matters. I honestly hope ACNW fights back and you have a good technical discussion.

I know our staffs had a briefing last week and the heart of it is, you all envision the magna sort of exploding up through the area at a very high speed, exploding through the drifts at a very high speed and getting thermal equilibrium very, very rapidly, and adversely for the casks.

I can imagine -- I'm not a geologist but I don't know that that is the only way that nature is going to occur and I still like what Mr. Hinze in the ACNW did but it is something to be disputed. It's something for you all to argue about. I welcome the argument.

The last item I'll raise is first, I want to praise Earl Easton for his National Public Radio interview last week on the spent fuel study. I thought he did a very, very good job on all things considered and I enjoyed listening to it, as it was rebroadcast. I didn't hear the original. But the second item, and this came up I think at that same hearing, Chairman Diaz mentioned, this notion that on security issues that the transportation has to be perfect, and some stakeholders piling on mentioned TOW missiles, the former Attorney General of Nevada implied that we needed to protect spent fuel in this country in a petition for rulemaking that I believe is still pending. That we needed to provide fighter air cover should foreign fighter planes choose to strafe. And I think there is a rule of reason here. If we really are worried

about foreign fighter planes strafing spent fuel pool trains or casks, we've got other problems.

And if you really think that TOW missiles which are military weapons, not RPGs that are used against our troops everyday but, you know, the TOW missiles and God knows we could have depleted uranium tank rounds and whatever. If terrorists get their hands on these things, unless they first went to anti-nuclear zealot school before they went to terrorism school, they are probably going to use them somewhere else first. And I hope and pray they don't get their hands on these sorts of things. So if we go down -- I believe that our security arrangements for spent fuel on which there is an additional order post 9-11, are very, very adequate or more than adequate for any reasonable threat. But if I pose unreasonable threats, you know, then, as I say, we have other problems in this country and I would respectfully suggest that we decouple the anti nuclear zealot schools from the terrorism schools in the caves of Afghanistan or wherever they have gone to if we can possibly do that.

But I don't think actually that they have an anti-nuclear zealot precourse for the terrorism course.

I will leave it at that. That was a statement and there is no answer that I'm looking for.

CHAIRMAN DIAZ: We did notice it was a statement. Thank you very much. And I appreciate the staff bringing the Commission up to where we are in these issues. We do know that you have a very diverse portfolio and that there are uncertainties in that portfolio.

We keep looking forward to working with you to make sure that

the agency can continue to discharge their responsibilities. And with that, we are adjourned.

(Whereupon, the proceedings were adjourned)