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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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ADVISORY COMMITTEE ON NUCLEAR WASTE AND MATERIALS

(ACNW&M)

182nd MEETING

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THURSDAY,

SEPTEMBER 20, 2007

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VOLUME III

The meeting was convened in Room T-2B3 of Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, at 1:30 p.m., Dr. Michael T. Ryan, Chairman, presiding.

MEMBERS PRESENT:

MICHAEL T. RYAN Chair

ALLEN G. CROFF Vice Chair

JAMES H. CLARKE Member

WILLIAM J. HINZE Member

RUTH F. WEINER Member

NRC STAFF PRESENT:

CHARLES MILLER

JANET SCHLUETER

PATRICE BUBAR

SCOTT FLANDERS

GARY COMFORT

BOBBY EID

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A G E N D A

SEMIANNUAL BRIEFING BY THE OFFICE OF
FEDERAL AND STATE MATERIALS AND
ENVIRONMENTAL MANAGEMENT PROGRAMS (FSME)4
ADITOTIRN

PROCEEDINGS

(1:30:31 p.m.)

CHAIR RYAN: All right. I think we'll come to order, please. This is the last session of this week's meeting, and we're now going to have a summary or briefing from the Office of Federal and State Materials and Environmental Management Programs, FSME. We have four folks with us, and I'm going to ask - I don't know which order you've planned in, but, Charles, you want to lead off?

MR. MILLER: Yes, I am. Thank you, Mr. Chairman. Appreciate the opportunity to meet with you today, and with the Committee. I've got some of my SES Management Team here from each of the technical divisions to try to cover the activities from their work that might be of interest to you.

I wanted to kick off by making a few global remarks, and I'd like to cover four topics, if I could. Kind of the State of the Union Address of FSME, some budget trends, knowledge management, and areas where we think we could use your help. And you'll hear more about this from each of my divisions.

I think it's a good time to speak with you, because in less than two weeks, FSME is going to

be one year old. And that will be our first anniversary, and we hit the ground running, by necessity, not necessarily by choice. And, as you know, our office has been a combination of the former offices of State and Tribal Programs, and portions of NMSS. And I'm very proud of where we are at this point in time. I'm proud of the staff, and I'm proud of our Management Team, and what we've accomplished so far this year. It's been a very dynamic period, as I've mentioned. We've had some pretty big ticket items to have to face in the last 11 months, and if I could beg your indulgence, I'd just like to run through some of our accomplishments.

We're continuing to build what I think is a stronger and closer working relationship with our regions, our agreement states, and we want to continue to build a continued strong relationship with the Advisory Committee. We want to continue to make sure that we have a viable MPEP program, and I think we've done that. And over the last year, we've done 13 MPEPs, and 55 regulatory reviews.

As you may know, we have to take a look at states' regulations to make sure that they are compatible with our own. We've had frequent and

effective international participation in a number of activities. We participate in the Joint Convention on Safety of Spent Fuel. I represent currently the agency in the United States on the International Atomic Energy Agency's Radiation Safety Committee. Larry Kamper represents us on the Waste Safety Committee. We've had a lot of interactions on the IAEA Code of Conduct over the last year. And I will be assuming a new role in the next fiscal year with regard to some international activities. I've been asked to replace Janice Dunn-Lee as the agency's representative to Nuclear Energy Agency's Nuclear Energy Steering Committee.

We've had a lot of activity with regard to rulemakings in the last year. And some rules that we've completed and working on are the NARM rule, the in situ leach rule, and Energy Policy Act initiatives and various rulemakings that fell out of that.

We've had to give a lot of timely support to media inquiries, and issues ranging from Polonium-210, to irradiated gemstones, to waste incidental reprocessing, and especially source control issues.

Together with the regions, we will complete 3,000 licensing actions this year, and about

1,200 inspections. We've successfully by the end of the year will have completed decommissioning activities on 10 complex sites this year.

One of the big activities that we've recently had to work on, and was very intense, is responding to the GAO sting that they did with regard to obtaining a false license from the NRC. And we had to develop a complete comprehensive action plan in five weeks at the Commission's direction. We've now got the SRM from the Commission with regard to moving forward with that action plan. As part of that action plan, the Commission directed us to set up an independent panel to do a look at our programming and materials area, and we're in the process of trying to establish membership for that panel.

We had nine petitions for rulemaking resolved or in process over the course of this year. And these range in issues from а two-person radiography rule, to a petition that would request global positioning to improve tracking of radioactive sources. And we've had various other rules published this year, as I've mentioned; the National Source Tracking System rule, there are some Part 30 changes in the NARM rule, which we're particularly proud of as

an accomplishment.

I'd like to shift gears and talk a little bit about some budget trends. It's been a unique budget year for the agency, and for us in FSME, in particular. Although we have to wait to see what the OMB pass-back will be, and the recent Commission budget decisions that they made, and the budget marks that they've made has been very important, from our perspective, because they have supplemented resources in the areas including a National Source Tracking System, web-based licensing, the surge and recovery, and uranium recovery casework that we're expecting, and they restored some rulemaking resources, especially in the security in the Energy Policy Act activities. And I think what this shows is that the Commission is making a real recognition that the agency does more than just reactor work, and that there's a lot of activity in the materials, and in the waste area.

With regard to knowledge management, I just wanted to make a few brief remarks. I think this is a topic that we all can share some experiences in.

I want to be able to add some experienced talent to our staff to get some youthful exuberance. We've got

a lot of very skilled and competent staff in FSME, but many of the people are approaching retirement age, and I could lose them at any point in time if they decide to leave. And we really need to replenish that talent pool.

From that perspective, there's a number of formal/informal tools that we're using to try to capture and convey knowledge, training courses, Reg Guide, Standard Review Plans, mentoring are recognized tools, and to the extent that the Committee can help us in various updating or creating guidance documents on certain activities, I think that this is a tool that can help us with the staff of the future, so that we can leave a legacy for them to work from.

I'm particularly excited about something that we've recently completed related to Materials Operating Events Gateway. Janet will tell you more about this, but this is a new database that communicates operational experience with any NRC staff, and we have it available internally on our website. And I'd like to ask if the Committee, at your leisure, could take a look at this. And if you can give us any insights as to how we can continually improve this, we'd appreciate that. We're looking for

this to be a living tool that's useful to everyone in the agency.

As you know, the Commission has recently expanded your authorities into the Materials area, and so this provides you and FSME a broader opportunity to work together. As you'll hear from each of my divisions today, I'd like you to at least ponder what they have to say, and think about opportunities where we can work together. And I think by doing this, we can build a stronger relationship, and through these collaborations, I think our products collectively can serve the agency, and improve the vitality of where we are.

That concludes formally what I wanted to open up with. And I guess I'd like to turn to my team to begin. Janet.

MS. SCHLUETER: Okay. I'm Janet Schlueter. I'm the Director of the Division of Materials Safety and State Agreements. I'll briefly mention to you the program areas that my division is responsible for, and those are in addition to the action plan associated with the GAO sting operation that Charlie just mentioned.

There is a SECY paper, 0701/47 is the

number that just went up to the Commission, that delivered the staff action plan in response to the GAO operation, and there is a Staff Requirements Memorandum that was just issued September 18th, and that is in final. That gives the staff permission to proceed to implement the action plan.

Basically, I'll just give you a highlights of that. You can read it at your pleasure. It recognizes a current activity where we're reexisting pre-licensing quidance at our document. That's already been in the works since July. It also discusses a longer term effort, which is establishing a Materials Program Working Group and Steering Committee that's going to look at the NRC's licensing and inspection programs more holistically. And then we have a shorter term project, which is a review by an independent group that Charlie mentioned, which is about four or five months in duration, and is primarily looking for vulnerabilities from a security perspective of our licensing program. what the independent review group comes up with, that will feed back into the longer range Materials Program Working Group and Steering Committee. And that Materials Program Working Group and Steering Committee

will also take a look at what has come out of the Pre-Licensing Guidance Group. And we're also trying to identify short-term actions that we can take in the more near term to be effective in addressing issues like how is GAO able to counterfeit the license, and so forth, and so on. So we have to identify shortterm actions that are effective, as well.

So in addition to all that, I have three branches. One is Sealed Source Safety and Security, and they do everything from sealed source and device reviews, to supporting the Chairman's Task Force on Source Security, working with other federal agencies on source security initiatives, as well as our own Office of Nuclear Security and Incident Response. They're also supporting the development of the National Source Tracking System. We maintain the interim inventory database. We're working on developing web-based licensing. That's all in the branch ran by Tim Harris of my staff.

The other branch is devoted more to the Materials Program and Agreement State Program. We develop all of the licensing guidance, inspection guidance. We do exempt distribution licensing. We run the Integrated Materials Performance Evaluation

which evaluates the adequacy compatibility of the 34 agreement states. We process new agreements. We do the reg review for new agreement states, and existing agreement states that are changing their rules to be compliant with our's. We issue almost all of the letters to the agreement states, as well as all 50 states. We coordinate with States Organization of Agreement and Conference of Radiation Control Program Directors. And Duncan White is the Branch Chief of that branch.

The third and final one is our Medical and Event Coordination Branch. We coordinate with the regions on event response, incident review, analysis, NMED, Agency Action Review Meeting, which is attached to part of the NMED process, coordinate with OE, OI, ACMUI. What else? That's about it, isn't it? Sandy Wassler is the Branch Chief of that branch, so you can see it's a pretty wide variety of tasks that's focused on Materials Program as administered through the regions, but do have the programmatic we responsibilities for developing guidance documents and so forth.

And we're working on -- latest effort is we're working with Patty's division in putting out the

guidance that's necessary for the NARM rule. And we also have NARM transition in my division. Patty's division did the rule, and we have implementation of NARM, meaning, primarily, establishing that regulatory relationship with NARM licensees that exist in the 16 non-agreement states. So let me turn to my slide.

Agreement states - there are 34. We have several in process. Pennsylvania is the furthest along the line. They would like to have an agreement signed and be effective by March 31st of next year. That is possible. Virginia we just received. They would like to have their going under review. agreement in place before the waiver of the Energy Policy Act for NARM expires in August `09. possible. New Jersey is apparently in the mail. should receive tomorrow. We have a team formed. process will begin. They, too, would like to have their agreement in place by August `09. Possible. say that because typically in the past, we have not gone through the review process of an application, and been able to sign an agreement and have it into effect in that short of a period of time. Two years is very, very quick. It's typically been three, four, five years, but we're working to do that, because these

states do want to have their agreement in place before the waiver expires, because neither we, nor them, want their NARM licensees to transition to the NRC for some short period of time, and then flip back to the state, because have, of course, authority for NARM, once that rule is published, probably today, tomorrow, we think. And then it's effective in 60 days, so then we begin to have NARM authority.

We support, as I mentioned, the Organization of Agreement States, and the Conference of Radiation Control Program Directors. If you've not caught up with those annual meetings, I suggest you might take a look at their websites. OAS annual meeting is next week in Oklahoma City. There's a lot of topics, of course, relevant to the Materials Program, and the Agreement State program. We always, FSME Management, support that meeting heavily. Chairman Klein will be there for a plenary talk. Commissioner Lyons is going. Typically, we do have one commissioner or more that is able to attend that meeting.

CRCPD generally holds its meetings in May.

They move around the country. That's a very large meeting, primarily because it is for all 50 states.

They have a longer meeting agenda, and more board meetings, and committees, and working groups that meet during that time. It's typically more than a week.

We also have a lot of interface with the agreement states on various Materials issues. At any one time, we have approximately 20 or 22 working groups established, where there are agreement state members that are either just members, or they are cochairing the working groups. And it's over a wide variety of topics, and we share that responsibility with the Division for Inter-Governmental Liaison Rulemaking, which Patty will talk about. But any one given time, there's a lot of activity in that area.

As I mentioned, we have the Integrated Materials Performance Evaluation Program called IMPEP. That's how we review the adequacy and compatibility of an agreement state program. It's done by a team. We have an agreement state member on the team. The teams vary in composition, depending on the program, program scope, program size. The reviews usually take about a week. We prepare a lot beforehand. The state has to prepare a lot. It's a big resource burden, if you will, on the agreement state when we're coming in to review them, because it's an audit. It takes a lot

of time and effort on their part, as well as our's. The team comes back with their findings. agreement state gets a chance to look at the findings, and then the team's report goes to an NRC Management Review Board. Charlie is a member of that. Virgilio is the Chair. There's an agreement state liaison to the Board, as well as General Counsels on It's the MRB that makes the final decision the Board. on the MPEP findings. And those go on all the time. There's anywhere between like 12 and 13 a year, but there are other periodic reviews that are less intensive of agreement states going frequently, as well as monitoring calls with certain states that are on, perhaps, heightened oversight status under the MPEP.

We've also been working with them very intently on a lot of security initiatives, increased controls. I'm sure you've heard about over 2005, 2006 and 7, where we, as a nation, are imposing additional security requirements on our higher risk sources, Category 1 and 2 under the IAEA Code of Conduct. The agreement states have implemented the compatible requirements. We inspect our licensees, just as they inspect their's. In addition to that, we're now

working with them on a difficult area related to increased controls, and that is the fingerprinting requirements that became effective, or we received the authority to impose fingerprinting requirements under the Energy Policy Act of 2005. So that's another initiative that we're working very closely with the agreement states, that has proven to be time consuming, full of complex issues, and difficult to work, both from a technical standpoint, and from a management standpoint.

With regard to irradiated gemstones, this is just kind of an interesting topic that I thought would be a little different. We became aware in our division of distributors of gemstones where the radiation levels associated with the gemstones. First, it turned out to be Topaz, but it's broader than that, had radiation levels which exceeded the exempt concentration limits in Part 30. Currently, we don't have anyone licensed in this country for exempt distribution, so right there, we knew we had an issue. There used to be an entity or two licensed for exempt distribution of such gemstones in this country, but not at present. So we immediately got a hold of

industry reps, we had a public meeting in July. tried to use that meeting to get a better assessment of the lay of the land, what was the current inventory of these gemstones in the country, and what were their practices with regard to imports, exports, where were they irradiated, where were they cut, who were the workers, does anybody have a license, and so forth, and so on. So that was a productive meeting, we learned a lot. We have a plan whereby we have been collecting additional information from the wholesalers in the country, several different locations where there's a fair amount of inventory, where these distributors would like these further distributed out into the market in the coming months, so we've been trying to do dose assessments. We've been surveying We've had visits to various wholesalers around the country. We're working with our regional offices, in some cases it's a proximity issue where they could get out faster than we could. And we're gathering information to ensure that we have as much as we need from a technical basis perspective to make a decision one way or the other on, one, is it safe from a public health and safety perspective to allow these gemstones to be distributed with their current

radiation levels. And what we've discovered is, essentially, they vary wildly. They're coming in and out of the country at different junctures. They're irradiated both by accelerators and reactors. have different radiation levels associated with them. Some will say you could tell by looking at the color how they've been irradiated, what the method has been. Some are coming from Thailand, Germany. We've learned lots of different activity that we just weren't aware of, so we're trying to make a decision on the short term, can we let this inventory go. But we also have now five applications in-house for a distribution have those distribution license license, we so applications under review. And so that's the longer term actions to get somebody licensed to legitimately distribute the stones.

As Charlie mentioned, a good example of the youthful exuberance that's been directed in the right place, our Materials Operational Experience Gateway has just been developed. It is on the NRC internal website. And what I mean by that is, we had one of our Nuclear Safety Professional Development Program participants, NSPDP, begin to develop it, and another one finished it. But what they saw was, when

they came in as a new person to our branch and trying to do regional event coordination follow-up on a daily basis, they did not have at their fingertips a ready source of information. They were always in this mode of either passing it on one person to the next, or learning it on their own. You know, where did they get the information that they needed to review events on a daily basis, coordinate, analyze, so forth and so on, trends, and so forth.

So what they did is, they looked at the NRR Operational Experience website, and they basically mimicked it, mirrored it onto the Materials side of the house, and then put in other relevant information so it's like one-stop shopping for anybody in the NRC that has access to the internal website to be able to get resource information when it comes to existing documents, to look at Materials event information as far as trending, to exchange information. There's a chat room-type effect on there, which we will monitor. And it is a good way for in one location for people to be able to tap into all of those different topics and source of information on Materials events.

It is new. I do encourage you to look at it, to use it. We want feedback. This is just the

first iteration, I'm sure there will be more. And we'd like to improve it with user's feedback once you had an opportunity to take a look at that. And that concludes my remarks.

MR. MILLER: Thank you, Janet. Patty.

MS. BUBAR: Hi, I'm Patty Bubar, and I'm the Deputy of the Division for Inter-Governmental Liaison and Rulemaking. I'm new to the NRC, so I appreciate the opportunity to begin to build my relationship with you. So being new to the NRC, new to the rulemaking, and Dennis Rathbun being the Division Director, also new to those topical areas, we've actually been spending a lot of time this year just really trying to understand exactly what is the scope that we have on our plate, and what tools do we have, and resources to make sure that we actually can do that work effectively. Obviously, rulemaking is not a new function, but just trying to get our arms around it so we can do it efficiently.

We have two branches, Rulemaking A, and Rulemaking B in the Division, and there's some topical assignments within those branches as to which rules get assigned to A and B. But, in general, they have the same kind of scope, same kind of resources

associated with them. And then we have a third which is the Inter-Governmental Liaison branch, That is somewhat of a new function in the Branch. organization, FSME organization; although, I think many of those activities were being done before, but concentrating them into one branch gives us the opportunity to focus our efforts on working with other federal agencies, other state organizations, although Janet's got the main focal point on the agreement So we actually have one branch where we're actually trying to grow our relationship, strengthen our relationships particularly with EPA, and the Department of Energy on the many things that go on across the waste and materials area, so it's really helpful to have one group of people who are focusing on that. And then we get to kind of bring a lot of things to a nexus there, and look at them from more of a corporate standpoint.

So in the rulemaking area, as we've been trying to get our arms around it, developing or looking at the tools that had been developed and using them, we have a prioritization. The NRC has been working on trying to get all rules corporately prioritized across the reactor and the materials area,

so that's a great tool that we use to make sure that we understand when you look out particularly over a two-year period what rules are on the horizon, what's the relative prioritization of those rules, prioritization based on risk, as well as visibility and direction from the Commissioners. And then also making sure that we have the resources applied to the right set of rules. So that's a tool that helps us make sure that we can give management attention where it's necessary.

So, anyway, what I'd like to talk about with you folks today is to talk a little bit about that process, but more particularly where I think we have been able to use your Committee, but also, where we hope to intend to continue to use it.

The rulemaking process, as you know, kind of has several stages. It has the technical basis. Sometimes a rulemaking plan, although we're not doing those as much as we used to. Of course, the proposed and the final rule stages, and then guidance. And I think what we're learning is that the technical basis, or having a good technical basis is extremely important. And what we're trying to do is to get better clarity out, particularly to the program

organizations that we're doing the rules for, on what a good technical basis is. And so, we've actually been spending a lot of time on that. And if the technical issues are solved with a good technical basis, or laid out clearly with a good technical basis, then the rulemaking is easier. And you don't try to solve those technical issues in the rulemaking process, because the rulemaking process is really to focus on the policy.

So, as I mentioned, we have developed some guidance for what a good technical basis is, laying out for the program organizations. Well, first of all, let me clarify. The rulemaking, the rulemakers do not write the technical basis. We generally want to receive the technical basis from the program organization that has a need for this policy. But, as I said, we want to work closely enough with them that we get a good technical basis, so we are actually trying to make it clear that we will not even initiate rulemaking until we actually get a good technical basis that clearly lays out what needs to get done, because that then allows us to really have more confidence in our schedules as we're doing the rules, if we know that we're kind of hitting the ground

running once we get into the rulemaking stage.

In this guidance, what we've highlighted, and the guidance has gone to the different program organizations, what we've highlighted is that the technical basis needs to provide the scientific, legal, or technical information that supports the decision to undertake rulemaking. And these technical issues may include calculations, scientific or engineering analyses, modeling, research undertaken, so really kind of bring focus to having that information laid out in the technical basis.

We also describe in this guidance that the technical basis should discuss the stakeholder interactions that have taken place in developing this technical basis, and discuss stakeholder views to the extent known. It also advises the program offices that ideally the technical basis should be discussed with stakeholders, including the appropriate Advisory Committees during the development. And we hope that that's the way we continue to do business using the ACNW&M in the development of the technical basis.

As an example, I think that we have tried to do this with the in situ leaching rulemaking, and we hope that we can follow that model, because that is

where your talents are most helpful, particularly at the beginning, and then towards the end as we're developing the guidance. As you know, the in situ leach rule is focused on groundwater protection at the uranium recovery facilities, and we have been using your input. You sent us a letter in May, and that is something that the rulemaking group is taking under advisement. And we actually have formed a working group now that we are into rulemaking space. We have technical basis for that rule. We have the Commission direction, we have your feedback, so we now have a working group formed to develop the ISL rule. That working group has a statement member on it, and it also has two EPA members on it. We have a member from the EPA Groundwater Office, and a member from the EPA Radiation Protection Division Office. important to have both of those organizations from EPA represented because of the issues rulemaking working group is facing. And so, we're developing the -well, we're talking amongst the working group, but they will be developing the rule language very closely with EPA, and we will then have a public meeting to discuss this with the public.

As we develop, or have the draft language

for the proposed rule, we will share that language with you prior to it going to the Commission. And then we have guidance documents that we know are going to have to be developed, because the rule will not prescriptively lay out all the information that would come into the guidance document, so it will be most beneficial to have your input on the guidance document.

As we look out using the prioritized, or the rulemaking prioritization chart as we look out over the next couple of years, specifically, the kind of rules that we will be putting most of our resources on are mostly associated with materials users. have general license restrictions rule that we're putting a lot of time and attention on to, National Source Tracking System, looking at tracking categories of sources lower than what we currently track. Charlie had mentioned, we will actually be hopefully working with the NSIR organization. We'll be spending a lot of attention on security rules that have not necessarily gotten the attention since 2001, because we took care of a lot of those issues through orders. So as you look out over the horizon for the next couple certainly the οf years, ISL

particularly the guidance, we would want your input on. But most of our rules are not going to be in the waste area over the next couple of years. We're going to be in the security area, and the general licensing area.

We are revitalizing the Inter-Agency Jurisdictional Working Group, if any of you remember that. That actually will be looking at NRC's regulatory authority regarding low concentrations of Uranium and Thorium, so we also will be working very closely, certainly with EPA, but actually many other federal agencies. We have actually invited several other federal agencies to participate with us as we revitalize that group, and we'll be having a public meeting sometime in the October or the November time frame.

So I guess in summary, we welcome your participation. We hope that we can have a model that allows you to provide us input, particularly in the technical basis and the guidance, but also, we expect to continue to share proposed rule language with you at appropriate times. Thank you.

MR. MILLER: Thank you, Patty. What Patty neglected to mention, she said she recently joined the

NRC. She worked for a number of years at the Department of Energy prior to joining us, and before that, at the Environmental Protection Agency, so she's had very broad-based experience that feeds directly into the job that she has now.

MS. BUBAR: I'm looking for the best federal agency. I think I found it.

(Laughter.)

CHAIR RYAN: It says so in your --

MS. BUBAR: Exactly.

MR. MILLER: Scott Flanders.

MR. FLANDERS: Good afternoon. My name is Scott Flanders. I'm the Deputy Director for the Division of Waste Management Environmental Protection. I'm very pleased to be here today. I always enjoy our interactions with the Committee, and look forward to more in the future.

Before I go any further, I do want to mention that Larry Kamper sends his regrets that he couldn't attend the session today, but he's obligated to some other duties, but he does look forward to interacting with the Committee in the future.

Today I'm going to cover two slides, one that talks primarily about some of the current

activities we have going on, and some of the near term activities that we've had with you over the year, and we expect to have with you in the very near term, next few months or so. And then the second slide I'm going to talk is some more of the future activities that we see opportunities for the Committee to provide us their insights for some of the things we'll be working on in the future.

The first one I wanted to talk about is our staff guidance for activities related to DOE's waste determinations. We met with you twice in 2006, in May and in July, and we provided overviews of the document, and provided some basis, I think in the second meeting, for the approach that we took on certain issues. And in December, we received a letter from you on the SRP providing comments to us. And we took those into consideration as we prepared the final. We just recently issued the final, and intend to come and meet with you next month in October to talk about how we resolved the comments, how the document was modified, how we specifically addressed your comments as we developed that document. So we look forward to that interaction.

Also related to Waste Incidental

Reprocessing, we also met with you to talk about our monitoring activities, just our general approach to monitoring. And, also, we gave an overview of the first two monitoring reports we developed, the one for the Savannah River Salt Waste determination, and the second one for the Idaho National tank farm facility. And we also touched a little bit, at that time we had actually been to Idaho and conducted some of our onsite observations, which a portion of our monitoring And we shared some of the results with activities. you about that. And we'll be coming back to talk to you a little bit in the future about monitoring, and we'll talk on the next slide when we see our next opportunities to interact with you on monitoring activities.

Low-level waste strategic assessment, we had a wonderful workshop that the ACNW sponsored, and it provided a great deal of information. It really provided a good platform for us to collect stakeholder input, as well as to give us an opportunity to kind of explain why we were doing low-level waste strategic assessment, and what we were trying to accomplish. And we have the paper in development, and it should be going up to the Commission soon, and to be made public

And right after, as soon as we can after that's made publicly available, we'll come down and meet with you, share with you the insights, and the rationale as to how we came out with some of our views conclusions, recognizing that we are still waiting for -- we would still be waiting for, possibly, the Commission's views in terms of the priorities that we offer in the area of low-level waste. And really, the focus, again, on strategic assessment, it's really looking at the universe of activities in the low-level And right now, environment is fairly waste area. dynamic, and I know just this week NEI was in talking about some of their activities as they prepare the environment. And we factored those things into strategic assessment, and really looked at how do we ensure that we have a stable, predictable regulatory framework for low-level waste? And then how do we -and in doing that, what are the main things that we need to work on, and how do we efficiently use the resources that we have to ensure that we're focused on the right activities? And so we'll explain to you the logic that we used, and how we went about constructing the paper, and how we came out with the priorities. specifically, how we addressed - you guys

provided us with a letter and views on certain activities and things that we should consider focusing on following the workshop, based on the Committee's views, based on things that you also heard at the workshop. And we can explain how we factored those in, and how that influenced kind of how we constructed our priority list.

The last issue I wanted to mention on the first slide, it's a near term issue, is the legacy sites rulemaking for decommissioning. We've come down and talked to you a few times over the years, I think in 2005, and I think twice in 2006, about this issue. And we're in the process of putting together the rule, working with Patty's folks. And as that rule is finalized, we will come down and talk to you. was one issue, in particular, in addition to just the overall discussion on the rule that we want to come and talk to you about, there was one issue that we do want to come and talk to you about, and that had to do with the financial incentives. And I think that was the subject of a few letters that we received from the Committee, and we do want to come down and talk a little bit more to make sure that we have a good grasp on the views that the Committee was providing us as we

move forward on that rulemaking activity.

On the next slide, I want to focus on some of the things that we see as future activities, and future interfaces. The first one I'm going to talk about is the on-site storage guidance, that's lowlevel waste on-site storage quidance, really a topic that we talked about at the workshop in May of 2006, and had mentioned that that was an activity that we were working on. We're continuing to work on that, and we are -- our focus is primarily on developing a quidance document for the materials and fuel cycle facilities. And we have had members of our staff, Jim Shaffner, who is working on that. He's been out on site visits with our regional staff, and with agreement state staff really collecting information to help support and provide insights for how we should construct, and what kind of information we need to cover in that quidance document. And we're also interfacing with NEI. NEI spoke earlier this week about their guidance development activity for storage for reactor facilities, and we've met with them twice, and we intend to meet with them again in early October talk about their quidance document,

approach they were taking there to ensure that we have a comprehensive guidance in terms of storage for both materials and fuel cycle facilities, as well as reactors. We really are going to look to endorse or leverage the work that they've done to the extent that we can, so that's the subject of the meetings that we've had in the past, given that they provided us with an overview how they were constructing that guidance, what kind of information they were going to include. And the next meeting is a continuation of that, so that's really the goal, so that we can have something out and available prior to the expected closure at Barnum in June of 2008.

The next topic I want to talk about before I leave that on-site source guidance, we'll
come back and meet with you, and share where we're
headed with our guidance document. I think we're
actually looking at as early as November, possibly,
but I put this in future activities, because while we
meet you in November and talk about where we're at
right now, I'd see this as a continuum. This is
something that is going to continue over some time,
and we need to continue to have a dialogue on it, so
we'll continue to -- the first initial interaction may

be in November. We'll also look forward to future interactions with you following that.

The next item I wanted to talk about is modeling evaluation. That is a division initiative. One of the things that our division over the last years that we have completed several selfassessments, low-level waste strategic assessment is one, where we're looking at how can we ensure our is adequate to ensure good regulatory framework. We've also looked at our NEPA program. had a contractor come in and do an audit of our NEPA program to ensure we're working as efficient and effectively as we can, and provide some good insights, particularly with the expectation, the large amount of environmental work that we're going to see with the in situ leach facilities licensing activities if that in, as well as some fuel cycle licensing comes activities, as well.

And we've also looked at our decommissioning program. We've been looking at that for some time over several years. And one of the areas we wanted to look at was our dose modeling really examine methods program, and our and techniques, tools that we apply in the right places,

right approaches. And that effort is being led by Dr. Bobby Eid of our staff, our Senior Level Scientist, in examining that, and interfacing with our staff. And once that's completed, we're looking at completing that towards the end of the year, but once that's completed, we do want to come back and share with you some of the insights from that effort and analysis. We're looking forward to seeing results. Again, we think we have a very strong program in terms of dose modeling. We have some outstanding experts in that area, Dr. Esh, Dr. Ridge, some of those folks. it's always good to continually look at yourself, and look for ways to continually improve, and become more efficient and effective, so that's one of activities that we're doing there, and we'll come back and talk to you about. I think that will be an interesting session when we do that.

The next topic I wanted to talk about is in situ leach rulemaking. Patty touched on that, and mentioned that we intend to come back and talk to you once the rule language is completed. And, also, one of the things that we see as particularly valuable, as Patty mentioned, is to get your insights as we go forward in developing the guidance. I think a lot of

the work in terms of how you implement the use of ACLs, et cetera, in the guidance document is where we can see some valuable insights from the Committee as we move forward on that, so we look forward to future interactions on that, as well. And we'll look for the right times to come and meet with you to talk about some of those things.

Monitoring at Savannah River site, this is the -- we talked about when we came and met with you earlier this year, we talked about the monitoring report, but we would like to come back to you after we've had an opportunity, we have not initiated monitoring activities at Savannah River site. DOE has not started their activities there, but once they start and we have an opportunity to initiate our monitoring activities, we do want to come back and talk to you about that, as well. So we'll look for the right time, and we'll interface with the staff to find the right time to come back and talk with you, and give you a report of some of the things that we're seeing, and how that process is working, recognizing that the monitoring activity that we have is new, and it's early in its implementation, so we'll continue to examine ourselves, and how we're going about doing that monitoring. We think we have a good approach, and a good plan, but we continue to look for insights as we implement.

The next topic, West Valley Project Erosion Issues, the slide says West Valley Project Erosion Issues, and certainly, you know the history of West Valley, and the issues associated with erosion. But we really see a benefit interacting with the Committee in a little bit broader sense on erosion topics, not just limited to West Valley, but really more from a look at some of the Lessons Learned and experience that we gained from dealing with some complex cover designs, complex erosion issues. We've had some that we talked about in the Savannah River Waste Determination for the Salt Waste Facility. There was issues with the cap design, some of those And what we're doing is collecting our things. Lessons Learned, and how do we implement those in the future. And I think that's one of the topics which we would want to come back and talk to you about. And, certainly, West Valley activities and insights we're learning from West Valley, we would certainly include, but that is something that we see as a probably broader discussion, as opposed to just West Valley.

We see more benefit from interacting with you in that standpoint.

And then the last topic I'll mention, again, is the Low-Level Waste Strategic Assessment. As I said earlier, we're coming down and talking to you once that document is public, but then it becomes -- the most critical part is in the implementation, how do we start moving out in implementing some of the recommendations, and the activities. And, certainly, many challenges as we start to tackle some of those topics, and how do we go about doing some of those things. And I think that's an opportunity for us to interface with you again, as we start to look at how tackle some of those issues, and implement potential changes, whether it be changes to a guidance document, or generation of a new guidance document, or something of that sort, as an opportunity to come and get your insights on how we go about doing that.

So with that, that concludes my remarks. And, again, I just wanted to recap that I think we've had a number of positive interactions over the last few years, several this year, and we look forward to more in the future. We value the insights and input that's given to us by the Committee, and we look

forward to future interactions.

MR. MILLER: Thanks, Scott. Before we conclude, I just want to acknowledge my appreciation for the support that I get for my Monday morning staff meetings from the ACNW staff members. Antonio, Derek, Latif faithfully come to my meetings, and I think it gives us a good opportunity for them to hear the issues that are on my plate, with my managers, and they get feedback from them concerning issues that are of interest to the parties, and things that you're interesting in hearing from us. So, again, I'd like to thank them for their support in the interface of that. That concludes our presentation, Mr. Chairman.

CHAIR RYAN: Thank you very much, Charlie.

That's great. Boy, there's a lot accomplished in a year, isn't there?

MR. MILLER: Yes.

CHAIR RYAN: So that's really good news.

And I think I certainly second the fact that our interactions at a staff level week to week, and month to month really help us identify things of interest to the Committee, that they're under our action plan, and I think we collaborate very well on, so I appreciate that very much. It's something we'll continue to

nurture, and our rolling calendar, which we all share how we schedule talks I hope is efficient for you. sure is for us, and gives the opportunity, as Scott of integrating their low-level strategic assessment with our working group assessments on the same topics was really a way for everybody to be in the same room, and hear the same experts, and get the same information all at the same time, so we really appreciate that.

I'm sure everybody is going to have some either questions or comments. Let's see. Patty, if I could just ask you a question. You did not mention Indian Tribes in any of your interactions, and I wanted to give you the opportunity to give us some additional information on how they're involved, particularly on the Uranium, perhaps some of the other questions.

MS. BUBAR: Yes, thank you. That was actually a big oversight. We are really trying to spend a lot of time developing not only our staff in terms of understanding the value of interacting with Tribal government, but actually doing that, and using the feedback that we get from the Tribal government. So, actually, Rich Turtil is our Branch Chief, and

then we have one staff person, Shawn Smith, who we have really kind of asked to dedicate to forming relationship with the Tribal governments. Rich was actually facilitating a meeting yesterday in Mexico, and he's going to be going to the meeting next week in Gallop. And Shawn has actually been spending a lot of time into getting to know particularly the tribes up in the Alaska area because of the Galina reactor proposal. But, in general, trying to understand the issues, and the culture that you have with the Tribal government. So we clearly are trying to ensure that we develop those relationships.

Developing those relationships are important for us to hear their input, not only on the in situ leaching activities, but on many activities, reactor issues, not necessarily waste. So we really have been trying to dedicate that time.

On the in situ leaching, I mean, Scott's organization has the bulk of the technical expertise on those issues, but we're interfacing with them, and trying to make sure that as we listen -- resolve these technical issues, that we're taking the advice and the input from the Tribal governments into account. So as part of that, we're also asking ourselves the more

broader questions of dealing with the Tribal governments, in general.

I came from the Department of Energy, and we actually had a policy on dealing with Tribal governments. I know in a regulatory agency, it's different, but we're asking ourselves those questions, as do we need to think about that long-term in terms of how the NRC, in general, might be reacting with the Tribal governments. So that's a long way away, and we have to spend time building those relationships so that we understand exactly what the issues are. But yes, thank you for that reminder. That was an oversight because we are putting time and energy into it, and there's tremendous payoff.

CHAIR RYAN: Sure. Again, I knew there was a little bit there, but I just didn't want the members and the audience to not hear your summary of that part of your program, as well.

MS. BUBAR: Thank you. And in addition to individual Tribal representatives, we're also trying to interact with the NCAI, National Congress of American Indians, as well as other groups which represent tribes as best that they can. So we're also trying to make sure that we have relationships with

those folks, also.

CHAIR RYAN: It might be interesting at some point as it might integrate with other briefings to hear a little bit more on the specifics of how those interactions are going, and so forth, so we could maybe advise the Commission on anything we might see. Appreciate it in those efforts.

I mean, just to augment MR. MILLER: Yes. Patty's comments, Scott gave Larry's regrets. was out participating in a public meeting this week. Next week meeting is primarily going to -- it's a public meeting for all parties, but we expect heavy participation by the Navajos. If I could just make a point, with the Indian tribes that are located in vicinities where there's large deposits of Uranium that companies want to either mine or build in situ leach facilities, this is a very delicate interaction with them, because they've got a lot of history with regard to what we deal with now is legacy sites. for previous activities in the United States with regard to Uranium mining, and mill tailings piles. And in many instances, it's not a very happy story, and so the tribes are very concerned about that, and what the future might bring. And is the future going to be a repeat of history? And that's something that we're trying to spend a lot of time trying to talk to the tribes about with regard to how we see the future, how we see our role, and trying to assure that that doesn't happen.

CHAIR RYAN: Great. Let's see. You know, Jan, in your talk I noticed that the MPEP program is alive and well. That's good to hear. We've written a couple of letters about it. I think it's a real interesting program, very proactive because it not is an inspection process, which is important, but it's at the leading edge of leading indicators, which is always a good thing. And I think that's a strength in the program, and really appreciate that. And, Scott, you know there's plenty of waste stuff to talk about. We see you on a regular basis. We feel like you're going to be in the room no matter what we're talking about, so we really appreciate that. And, again, we've commented in the past that we think your Performance Assessment, use a slightly different phrase, Dose Modeling staff is probably one of the strongest groups in the country in that area of skill, and that's something to be nurtured, and really cherished because it's hard to put together that many people in one room that have that much talent. They really do tremendous work on WIR and other performance assessment kinds of work, and that's a real strength, so there's a lot of value there.

So with that, I'll turn to my colleagues, and start with Dr. Clarke. Do you have any questions or comments?

DR. CLARKE: Thank you, Mike. Thank all of you for your presentations. Let me start with I think that's an awfully good list you have up here, and we really look forward to continuing exchanges on these topics. And with respect to preventing legacy sites, welcome further we discussions with you on that. I think we've clarified our comments, but it's an opportunity to look at what kinds of incentives could be provided for people who do engineer their facilities to prevent releases, detect them if they have them, and remediate them effectively and quickly so that they don't get to the end of the process with a lot to do, and so the stuff doesn't get into the groundwater. When it gets into the groundwater, you know it's a whole new challenge. So thank you for that, and we -- and I think your group in the decommissioning efforts that I've been

involved with with the Committee are good examples of how we can best help, if we come in early. And we appreciate that, and we appreciate your coming.

I had a question for Patty. As you know, the restoration of contaminated groundwater is a challenge to not just the NRC, but DOE, and EPA, and the Department of Defense, as well. I wonder, does your working group have now, or is it contemplating additional representation from maybe some other federal agencies, for example, the DOE and the Department of Defense that have a fair amount of experience with this?

MS. BUBAR: We had not contemplated actually adding a formal working group member from those other federal agencies. However, we did reach out to the Department of Energy. Actually, as I mentioned, we're trying to reach out to all the federal agencies. We've met with the management of EPA, DOE, OSHA, Department of Homeland Security, we're just started to establish our relationships, and have a commitment with all those agencies based on that initial contact to continue to come back, possibly on a quarterly basis, to talk about issues that we want to continue to work with them on, both technically and

programmatically. So we have those avenues for having those lines of communication.

We hadn't thought about, or at least, I don't know, Gary, we do not have them formally represented in our working group, but I think maybe with your suggestion we'll think about maybe having them work with us in an advisory capacity, given their tremendous --

DR. CLARKE: Just a thought.

MS. BUBAR: Yes. Thank you.

DR. CLARKE: Yes.

MS. BUBAR: Yes. We actually participate in the ISCORS organization, also. In fact, Don Cool in our organization co-chairs that with EPA.

DR. CLARKE: Another group that has a good deal of experience, and has done some really good work in this area, is the ITRC.

MS. BUBAR: Yes.

DR. CLARKE: So just a few suggestions about potential --

MS. BUBAR: Yes, good ideas.

DR. CLARKE: -- communications with other interested and experienced parties.

MS. BUBAR: Thank you.

DR. CLARKE: Thank you, Mike.

CHAIR RYAN: Okay. Ruth.

DR. WEINER: First of all, I want to welcome Patty, because we run into each other in different venues. And I will see whoever is at the hearing in Gallop because I'm planning to go.

MS. BUBAR: Good.

DR. WEINER: I, unfortunately, couldn't make it to the one in Albuquerque, but my husband taped it, so I heard the whole hearing.

MS. BUBAR: Okay.

I was going to suggest in DR. WEINER: your outreach to the tribes that I don't know if you've made any contact with the American Indian Science Engineering Society. They're and headquartered in Albuquerque, and they are a very excellent resource for you. They have repeated what we do, in particular, my little group at Sandia. What we do is, as volunteers, we help them judge the American Indian Science Fair. And I want to point out, this is one of the absolutely best run science fairs that I'm familiar with. And we review all of the submissions, give advice to the teachers, and so My assistant at the labs got an award from them last year for his work with the science teachers in the Indian schools.

We've also done - the American Nuclear Society has also done some outreach work with science teachers at the Indian schools, and this is a place where you could be of some assistance.

As far as the in situ leach question is concerned, what is the state that is on your state working group?

MR. COMFORT: We have two representatives, one from the --

DR. WEINER: Yes, you're going to have to come to the microphone.

(Simultaneous speech.)

MS. BUBAR: Gary is the head of the working group.

CHAIR RYAN: We're on the record, so just your name. You can sit at the table if you want, but just your name, and your affiliation.

MR. COMFORT: Hi. I'm Gary Comfort. I'm a Senior Project Manager in FSME in the Rulemaking Branch. I'm also the Project Manager for the ISL rule. Basically, we have one state representative from the State of Texas, who's the agreement state

representative, and we have one state representative from the State of Washington who represents CRCPD.

DR. WEINER: Thanks. Another member, Dr. Hinze, and Dr. Hamdan and I recently took a trip, met with the DOE Office of Legacy Sites in Western Colorado, and we did write a trip report, which I believe we can share with you. And we gained a great wanted insights, and Ι to suggest cooperative work. We might well work cooperatively with you. One of the things that we found on our trip was that when we made it very clear that we were not regulators, we were an advisory committee, we get a very different view from the view the regulators get, because they were much -- well, what we got from the participants with us from the people who visited was the view that they would sometimes be hesitant to share with a regulator. They know about regulation, and it was a very good trip, and we met with a great many people, saw the big Atlas pile at Moab, and a number of remediated sites. And we also ran into some very interesting research projects on groundwater remediation, so this is all very good. And I'm very happy to hear that you're taking a very proactive role with the public, and not just the Native Tribes, but

with the public in the area with respect to this rulemaking. And we'd be happy to maintain contact.

MS. BUBAR: Thank you. Yes, thank you for that suggestion.

MR. MILLER: Mr. Chairman, could I proceed on a couple of things with Ruth?

CHAIR RYAN: Yes, surely.

 $$\operatorname{MR}.$$ MILLER: She's got my attention on a few things here.

CHAIR RYAN: If it's okay, I'll just let the other members get their questions in, and --

MR. MILLER: However you'd like to do it.

CHAIR RYAN: If that's okay.

MR. MILLER: Okay. That would be great.

CHAIR RYAN: Allen.

VICE CHAIR CROFF: Thank you. I think first for Patty, you mentioned this Inter-Agency Working Group on Uranium and Thorium, low concentrations. Can you give me a little more context, I guess? What's the problem, or the waste, or facility that's caused all this to happen?

MS. BUBAR: Others may have more, but historical perspective, or maybe Gary could come back up to the table and talk a little bit about it. I can

talk about how we have -- it was a group that had gotten formed several years ago, and then we got some Commission direction to put it a little bit on the back burner. And then we got recent direction to reinvigorate it, so I will actually let Gary give a little bit of the specifics. He's also the Project Manager on it.

VICE CHAIR CROFF: Before he does, let me clarify. I'm interested in sort of the technical problem it's trying to address.

MR. COMFORT: Okay.

VICE CHAIR CROFF: Okay.

I'm Gary Comfort, again. MR. COMFORT: Basically, the Inter-Agency Jurisdictional Working Group was set up in about 2000 to address what's the best way to handle low activities of Uranium. Tt. included groups from a variety of agencies, OSHA, MSHA, DOE, EPA, Department of Labor, we had. We had Department of Transportation. Basically, the thing it was trying to handle is, because of our regulatory scheme, inconsistencies there's some regulations, particularly regarding source material, Uranium and Thorium. We have an exemption at .05 percent that we exempt most people using the material

under; yet, we may have decommissioning requirements that require a licensee to go well below that. So we were looking, is there a better way to handle it? Do we need to regulate lower quantities of material? Should we change our method?

The eventual recommendation in 2003 of that group was that NRC really shouldn't regulate Uranium and Thorium that's not purposely extracted or concentrated for the use of Uranium and Thorium. And, effectively, as you're probably aware, the Energy Policy Act in 2005, we took over Radium, effectively around the same type of thing. We only actively regulate the purposeful uses of the material medical and commercial uses. And that was the intent before that date of doing the Uranium, also, to allow you to basically run into that the naturally occurring material is generally commingled with other materials that are regulated by the EPA and states, that would allow them to continue to regulate the -- or to regulate the Uranium on top of it. And you'd also remove some dual regulation issues that you came upon.

VICE CHAIR CROFF: Okay. Thanks.

CHAIR RYAN: Can I ask some follow-up to that particular point? One thing that always strike

me is that -- and it's maybe a self-inflicted wound in a lot of ways, is we regulate on the basis of those kind of, forgive me, but goofy criteria that .05 by weight is some magical risk. It has nothing to do with risk. In fact, I gave a lecture to the OGC folks showing them where it came from. It came from the Atomic Energy Act of `46, `46, not `54, `46. -- we need to -- I urge you all in all of your programs to stop putting that gun to your foot and shooting it. We shouldn't do it that way. We should look at the risk of a particular material, and risk. And if requlate the it turns into concentration, or it turns into some other metric, But to start out with .05 by weight as a wonderful. cutoff for anything to do with the real mission of the agency, which is to regulate the risk, it's kind of counterproductive.

MS. BUBAR: Yes. We tried to get a seat at your lecture, but apparently it was standing room only.

CHAIR RYAN: I will be happy to come to -I will offer you now, Charles, I'll come and give the
lecture to any and all you want, any time.

MS. BUBAR: I think that may be helpful.

CHAIR RYAN: I'd be happy to do it. actually quite fun. By the way, being Chairman in the original Commission was a great job. There's a 25 percent bonus in pay for being Chairman over a Commissioner, so interesting history. But I think the risk-based approach and getting away from how these fundamental definitions that were strictly strategic, strictly strategic to control what was weapons-related material into our modern thinking about risk is a really big challenge for your group, in particular, and for the agency as a whole. So I'm glad it came and Allen, thanks for asking that detailed up, question. It really is an area where I think there's an opportunity to get more to a risk-insight, than some of these artificial definitions. I think it helps with communicating the risk to the public, too.

MR. MILLER: Maybe we can make an arrangement to have you come up and do a technical lecture for us.

CHAIR RYAN: Absolutely.

MR. MILLER: Might get some knowledge management of this.

CHAIR RYAN: I get here early on Monday of the meeting week, so I'll be happy to come up Monday

afternoon next time I'm here.

MR. MILLER: All right. I'll ask Patty to

CHAIR RYAN: We'll do it.

MS. BUBAR: Definitely.

CHAIR RYAN: Thank you, Allen. I appreciate the interruption.

VICE CHAIR CROFF: Scott, I wanted to make sure I had a connection right. You mentioned this dose modeling evaluation. I went through the draft NRC strategic plan that's on the website and this kind of thing, and there was an item in there. It was a long paragraph, sort of describing a study that sounded like the same thing. Are those two --

MR. FLANDERS: No, our effort and what we're focused on is not the broader effort that you may have saw in the strategic plan. It's just an internal exercise. Again, as I said, geared toward looking at ourselves in terms of efficiency and effectiveness, in terms of how we implement our dose modeling. For example, for certain decommissioning activities, what is the right total to use to make that regulatory decision? You could use a very complex model to try to solve a pretty basic problem,

or you can use the right type of tool to solve the right type of problem. Getting into some of those things, looking at how we do it, our own processes to ensure ourselves of -- internal QA/QC, in some cases we develop our own internal models for our use in terms of helping to inform our reviews, those types of things. So it's not that broader issue, it's more narrow focused. It's being led by Dr. Eid. And Dr. Eid has interfaced with the Office of Research, but in terms of gaining insights and looking at our activities, but this is not that broad.

VICE CHAIR CROFF: Okay. Let me follow on. Can you explain a little bit more about what that broader effort is, the one that's described in the strategic plan?

MR. FLANDERS: I'll let Dr. Eid respond to that.

DR. EID: Yes. Good afternoon, everybody. My name is Bobby Eid. I'm with the Division of Waste Manager, FSME. This exercise we are doing, it's more of self-assessment, actually, in order to evaluate how we do dose modeling, to make sure we are consistent in the way we conduct dose modeling analysis, to make sure that the process we do dose modeling is

efficient, to make sure that we are using the appropriate codes and models, and the right tools for the appropriate cases. And in order to improve the efficiency, to address the issue of transferring of the experience to the younger generation, as well. So we have in mind all of this in order to improve the way we conduct dose modeling analysis, and to transfer knowledge.

VICE CHAIR CROFF: What about the effort mentioned in the strategic plan, what is that?

DR. EID: I'm not exactly aware of --

MR. FLANDERS: Allen, I was unfamiliar with that broader --

DR. EID: -- of this familiar, so --

MR. FLANDERS: I can't speak to it at this time, but I can look into it and try to get back to you.

VICE CHAIR CROFF: Okay. I wish we had that paragraph in front of me, and I don't.

MR. FLANDERS: Yes. I think I recall what you're referring to. I just am not familiar with the details of that broader effort.

VICE CHAIR CROFF: I mean, I'm wildly paraphrasing, but in an evaluation of how low-level

waste performance assessment is done. That's sort of
what I read into it, but --

 $$\operatorname{MR}.$$ FLANDERS: I look into that, and see if there's any --

VICE CHAIR CROFF: Yes.

MR. FLANDERS: I'll get back to you.

VICE CHAIR CROFF: Let me go into -- okay.

I can't let you go without talking about WIR just a little bit and Savannah River. The last I remember, and it's been several months, Savannah River submitted a draft waste determination for a couple of their tanks. I can never remember the numbers, and I've not heard much of anything about that since that time. Is it still being reviewed by the NRC? I haven't seen a TER come out.

MR. FLANDERS: Currently, we are not They've actually sent us a letter reviewing that. asking us to hold-off on continuing a review of that activity while we continue to work with them on some more generic issues around WIR activities in terms of performance assessment issues. I think we talked in the past about seven or eight issues that we had identified important facilitate future as to interactions, so a lot of the processes would be more

efficient and effective. For example, how you approach concentration averaging, how do you look at issues such as point of compliance. And we've been interfacing with DOE over the last year or so on those particular issues. And their thought is to hold off on resuming a review on tanks 18 and 19 until we've made more progress on those activities. based on the progress that we make on these more generic technical issues, they would then look at how, or if they want to modify their waste determination for those tanks 18 and 19, and then resume the review. So at this point, we're not actively reviewing that specific waste determination. We're continuing to work with them on some of these broader generic issues in terms of approaches and philosophies, in terms of how you go about doing performance assessment, demonstrating compliance with the performance objectives.

VICE CHAIR CROFF: Will we, the Committee, hear anything about the generic issues in the foreseeable future?

MR. FLANDERS: Let me take that back. And I think there may be an opportunity for us to talk to you about that. We're still actively working with DOE

on some of those, but I think we could find the time to discuss some of those. Certainly, you'll hear about some of them when we come down to talk to you next month about the guidance document, for example, concentration averaging is one of those. You'll hear some of the things we've done in terms of how we've modified the guidance document for that. And in the future as we resolve some of these issues, we would further update the guidance document.

One of the things you'll hear when we come to talk to you is that the document is called draft final document for interim use, recognizing that as we resolve these generic technical issues, we're going to further revise it. So we recognized before that there was a need to continue to look at this document, and to continue to update it, because what we didn't want to do is to wait until we completely finished resolving all the generic technical issues before we revised the original draft. We thought that there was enough comments, and enough issues that we could address now, and essentially have an interim-type document, if you will. And then further revise it after we complete these generic technical issues. So as we complete those and revise the document further,

there'll be opportunities for us to come and talk to you about it at that time.

VICE CHAIR CROFF: Okay. Back on the previous subject. Antonio was able to find the right This is that out of the strategic plan, page. "Decommissioning and Low-Level Waste Management Dose Modeling and Performance Assessment Approaches Review." That's the title. "Expected to be completed next near, complete a comprehensive technical review and critical evaluation of the Division of Waste Management and Environmental Protection current approach and methodologies used to conduct dose modeling analysis for decommissioning and low-level waste."

DR. EID: Yes. I think this one we did not talk in detail about, our objective for this analysis, because we are trying to conduct it in two phases. Phase one, we tried to look at decommissioning activities, and how we did conduct decommissioning in order to demonstrate compliance with the license termination, those criteria. And we look at what the licensee submitted, and how the staff tried to do to repeat what the analysis for the compliant, for demonstration with the dose criteria. And to see how

can we improve the process. And we did for lots of sites, where there's lots of decommissioning sites based on this, so we're looking at how we can improve the process, what kind of course we are using. That's part one. And this is for something that we are already doing. I hope you are not confused between these two.

Now for low-level waste we are trying also, we are doing some kind of dose analysis, some kind of analysis. For example, in the future we are looking at different cases, for example, disposal of depleted Uranium. Okay? There could be dose analysis And some cases we do dose analysis for environmental impact statements for Uranium recovery. So we're planning also to look at ways, and means, and methods, and codes, and tools, and how can we be efficient in conducting the dose modeling analysis whenever it comes to try to comply with certain criteria in our rules and regulations. I hope it is clear that there are two parts. One part is for decommissioning that we already conducted, and the other part, when we try to review and conduct those analysis for waste management activities.

VICE CHAIR CROFF: But neither of t hose

is the self-assessment you mentioned.

DR. EID: No, it is the self-assessment -okay. The self-assessment -- okay, the first part.
The first part, the licensees submit those analysis.
Okay? And then we try to review it. When we review
it, we use codes and models to run it ourselves.
Okay? And we see if the licensee, indeed, complied
with the criteria or not. So we are doing dose
modeling analysis, and so we want to see how we are
conducting that in order to review what the licensees
submit to us. This is all self-assessment.

CHAIR RYAN: But, if I may, I mean, the licensee submits a package with calculations and results.

DR. EID: Right.

CHAIR RYAN: And rather than just accept those calculations and results, and check their arithmetic, you're doing an independent analysis, perhaps with different codes and analysis techniques to see if their analysis and results are robust.

DR. EID: Exactly.

CHAIR RYAN: Is that a fair way to say it?

DR. EID: Exactly.

CHAIR RYAN: And I think what you're

working on is what are the in-house tools to examine the applicant's calculations.

DR. EID: That's well said.

CHAIR RYAN: Fair enough?

DR. EID: Yes.

CHAIR RYAN: Okay. Does that help?

VICE CHAIR CROFF: Not entirely. I'm trying to find out whether there's one exercise, or two exercises.

MR. FLANDERS: Allen, as I look at this, let me try to clarify. There are essentially two exercises, the first of which we're talking right here, feeds into this larger exercise, now that I look at the words here. It feeds into this larger exercise, so right now, this first piece that we're going to come and talk to you about that Bobby is looking at as parts of decommissioning is our internal look. And then, of course, it's going to turn into a broader perspective, and a broader look that this first initial piece that Bobby is working on will fit into. When we come to talk to you, we'll explain the relationship between the two, and make sure that you're clear on it, so you can follow it.

VICE CHAIR CROFF: Okay.

MR. FLANDERS: But the answer to your question is, is what we're talking about here this broader? No, but it feeds into the broader issue.

VICE CHAIR CROFF: Okay. Thanks.

CHAIR RYAN: At least we got a good question. Professor Hinze.

DR. HINZE: Thank you, Dr. Ryan. you seem to be popular this afternoon. I think I can speak for the Committee in that we're very pleased to see you have the West Valley erosion issue where we could have an interface. This is an area in which landscape evolution erosion modeling and has proceeded, and has progressed greatly in the last half decade or so, and so there are real opportunities to try to remove some of the uncertainties in this area. And I'm wondering, we have a work in place on this issue, and I'm wondering what your time frame is on this? And could you speak a little bit more about what you're trying to accomplish.

MR. FLANDERS: Okay. Let me take it in two pieces, first as relates to West Valley. And then, as I mentioned earlier, looking at more in the broader sense.

DR. HINZE: Sure.

MR. FLANDERS: As relates to West Valley, currently, the issues that we're dealing with around erosion, we're interfacing in the quarantine process of the development of the environmental impact statement, as a cooperative agency. We're a cooperative agency working on that. that the cooperative agencies have formed a quarantine, and they're looking at various issues in order to facilitate completing the draft environmental impact statement that DOE and myself are the co-leads on, and issue that. And this is one particular issue that they're looking at in terms of how do they address erosion in that draft environmental impact statement. And those interactions are pretty much confined to that core team of cooperating agencies, because in the cooperating agencies phase you're dealing with a lot of pre-decisional-type information, that will eventually come out in draft for public comment. So we're working on that piece.

In that activity and interface, we're bringing some of our experts into that process, involved in that core team process. For example, Dr. Esh is involved in that core team process. Ted

Johnson, who is a retired expert in cover designs is also involved in that. Robert Johnson are the key folks from our group that are involved in that, as What they bring to that process is a great deal of experience. And in the dialogue there, there's also a number of issues that come up that are unique to West Valley, and that we look at from an experience standpoint to generate and further develop quidance. So what we would like to do, and where we see the benefit in the interface with the Committee is as a part of our, if you will, management knowledge transfer, we're trying to develop best practices, identify key technical issues, quidance for staff in future issues that we might see emerging. And some of that we're getting from West Valley, some of that we're bringing to the West Valley process. And what we'd like to do is come to talk to the Committee about that broader repository, if you will, of knowledge as it relates to deal with erosion-type So we kind of see it as two pieces, one is the West Valley piece, where we're interfacing as a part of the core team process, for giving knowledge, and we're gaining knowledge in the sense of what unique issues that can develop there from broader

activities so we can capture that, and feed that into a larger guidance document, which we would like to then interface with the Committee on, in terms of Lessons Learned, and how we apply those for future activity, erosion activities, as well. So that's kind of a two-step process. And we saw the benefit, as opposed to just talking solely about West Valley, but to talk about some of the larger Lessons Learned that we've had, and how we're trying to develop that, and capture that guidance, and get some insights from you as to potential issues, or things that we ensure that we cover and address.

DR. HINZE: I think the staff will be very interested in speaking with you, and we can decide how best to do this. It's something of interest to us, as well.

Janet, I would like to hear your voice again. It's been a long time. Janet, irradiated gemstones tweaked my interest a bit. It seems to me that this is a very small element, if you will, of the entire program, but a fascinating one. And, perhaps, a rather difficult one. I can envision that there are some real problems in licensing on this. And I'm wondering if you could expand a bit, because, as I

understand it, the agency has not been involved in this in recent years. Could you expand on some of the problems? And I'm wondering if any of this is going to lead towards any new reg guides? Is that in the works?

MS. SCHLUETER: I don't know as though it will result in new reg guides. It could. There's actually two that my staff have dusted off that exist, that provide some technical bases for determining whether or not the concentrations that we're seeing should be released, or held until they can hit the exempt concentration levels that are allowed by Part 30. We certainly are trying to do our best to make sure that we're surveying a wide enough spectrum and sample of what we believe is out there to be representative. And then you're talking about --

DR. HINZE: That must be very difficult.

MS. SCHLUETER: -- dose modeling and assumptions, and we don't want to be too conservative, but we don't want to be criticized of being lax, and just letting the gemstones go, so that everybody has a happy Christmas, because that's what the retailers in the industry are saying. Hey, you've crushed our season this year because you've identified the

inventory potentially not meeting as concentration, so we need to work with you to officially determine is there inventory now that can be released that, for one thing, has been held a long Because so many times when they are irradiated overseas, by the time that they actually are sent to a large distributor for cutting, mounting, and further distribution, weeks and months go by, and so in many cases by the time that the inventories are even distributed to the retailers, the dose rates off of the stones are extremely low. But at this point, we're still collecting enough information to see the inventory that they currently have in stock now that they'd like to see us give them permission to release, does it pose any radiation safety issues for the public?

DR. HINZE: Well, if you see any way that this Committee might be of assistance with this, and holding any workshops, or bringing in some people that have some particular expertise in this, that is outside the Commission, I think we'd very much like to know. Thank you very much.

MS. SCHLUETER: Thank you.

CHAIR RYAN: Hey, questions. Charles, you

wanted to follow-up.

MR. MILLER: Yes, if I could.

CHAIR RYAN: Please.

MR. MILLER: Ruth, you had mentioned about the American Indian Science and Engineering Society.

DR. WEINER: Yes.

MR. MILLER: Okay. A couple of issues there. Is that -- first of all, is there a point of contact there you could recommend, that maybe Patty could pursue?

DR. WEINER: Yes, I can certainly give you

-- they're headquartered in Albuquerque, and I can

find the name of the current Executive Director.

MR. MILLER: That would be great.

DR. WEINER: Sure. I can just email it to you, and to Patty.

MR. MILLER: Great. That would be wonderful.

DR. WEINER: That would be fine.

MR. MILLER: In that line, would that be an organization that might provide some opportunity to aim us in the direction for recruiting purposes?

DR. WEINER: I think very definitely.

MR. MILLER: Okay.

DR. WEINER: The two foci of the group are, first of all, science education through teacher workshops, and the science fair. And the second one is placing people in technical positions. They also give a large number of scholarships to potential engineering students, and they would simply be delighted to work with you to find placements for some of their people.

MR. MILLER: Great.

DR. WEINER: They are very anxious to do this. They, being located in a state where there are two national laboratories, they work very assiduously to have people hired by those national labs, and they'd welcome that.

MR. MILLER: Okay. Do they represent a broad spectrum of tribes, or are they primarily the ones located in New Mexico/Arizona area. Do you know?

DR. WEINER: No, they represent all of the tribes in the United States.

MR. MILLER: Okay. Great.

DR. WEINER: We get, for the science fair, we have applicants from schools all over the country.

And as it happened, the science fair about three years ago, the big one that the kids could get into

was in Albuquerque, but I believe last year it was in Orlando. And it's been all over the place, so they are a national organization.

MR. MILLER: Thank you. Any help you can give us on that front, would be appreciated.

The other question was, if we could dialogue a minute on this, you talked about in your travels, you could get to talk to folks who may tell you things that they won't tell a regulator. How do you take that information as an advisory committee, and be able to dialogue with the regulator side of the house in such a way that that information can be useful to us with regard to helping us inform what we do in a better way, but yet, not violate their views so that they feel that what they tell you isn't passed on it a way that will somehow cause harm to them, if I'm making myself clear.

DR. WEINER: I don't want to overemphasize this dichotomy here. I mean, it isn't as if
they said well, come over and we'll take you aside,
and we'll really unload on you. But we have a trip
report which is very detailed, and we put in it quite
openly all of the information that we get. I think it
is more a case that there are things that they're

hesitant to tell you, but don't mind if you hear it.

It's not that they -- it's not a question of concealment. It's a question of being one-on-one with the regulator, and perhaps the regulator will make the wrong interpretation, or take this wrong.

One of the things that we found, by the way, was there is no notion that they're overregulated. In fact, one of the things that came out of the meeting that we had with the DOE, Office of Legacy Management, and two states were there, and two tribes were there, and they said it's okay to have more than one regulator, as long as they are working cooperatively. And this is the kind of thing that you all, as regulators, might not hear directly. I think that's more the sense in which we interacted with Because the other field trip that we took to Chadron, Nebraska, we were there at the same time with the regulators, and we also noticed that there was a very cooperative relationship between the regulator. There was no sense of confrontation, or anything like that. So I don't want to over-emphasize this. It just simply struck me that saying well, we're not here to regulate, we're just here to learn.

CHAIR RYAN: Ruth, I think there's an

element there, too, that's common in other things that I've done, and everybody else has done, too, and that's early and often. Go early, without anything to determine, or answer, or decide, just go and listen. I mean, when we ask the staff to come down, what's our request? Come as early as you can. The earlier we hear it, the better we can prepare, and digest, write letters, and be effective in what we do, so I think that's maybe part of the thing that Ruth's talking about, is go early, go often, and go before there's a needed decision.

MS. BUBAR: And, actually, what I was thinking of as you were talking about this, is Legacy Management got formed because of the mistakes that were made, and that's we had to have a clean-up program. So their perspective on what they might not have to do if we would cause something to happen during an operational stage would be very helpful, because their scope might be different if mistakes weren't made.

DR. WEINER: We are very happy to share with you all, and, of course, we will be writing another letter, other letters to the Commission, and you get that information back.

MS. BUBAR: Sure.

DR. WEINER: And we put any attachments on it. Our trip reports are open for anybody, and this one was very detailed. And if you don't have a happy, we'll get -- we'll take care of that.

MR. MILLER: Thank you.

DR. WEINER: In fact, I'd be happy to come
-- Dr. Hinze and I would be happy to come and talk to
you at greater length about our travels.

MR. MILLER: Good.

DR. WEINER: As I said, I'll probably see you all --

CHAIR RYAN: We have to be careful, because I think we have to do that in this forum.

 $\label{eq:def:DR.WEINER:Oh, no.We--as long as we} $$ \text{have a staff member there.}$

 $\label{eq:CHAIR RYAN: No, as long as we do it in the public. \\$

DR. WEINER: Well, yes.

 $\label{eq:CHAIR RYAN: Exchanging information, we} % \begin{center} \begin{center} \textbf{CHAIR RYAN: Exchanging information, we} \\ \begin{center} \textbf{need to do that --} \\ \end{center}$

DR. WEINER: In the public forum.

CHAIR RYAN: -- in the context of our charter.

DR. WEINER: Surely. So we'd do this in a public forum. We went as a subcommittee, also. It was not the full committee. The full committee, we would have had a public meeting, but we went simply as a fact finding, mostly to inform ourselves.

CHAIR RYAN: Just for everybody information and benefit, when a subcommittee does gather information, they make a report to the full committee in a public session, so that's how the information is made public.

DR. WEINER: And, as a matter of fact, we just did that.

CHAIR RYAN: Anything else?

MR. MILLER: Thank you. I appreciate the discussion.

CHAIR RYAN: You know, I've got to summarize by saying you've really got a lot of hardworking folks that have done an awful lot to pull an organization from the four corners of the NRC earth into one organization, and really get as much done and as much organized as you have. There's a lot of talented folks, and they're doing good work, and we really appreciate interacting with you as we learn our scope on materials, and see how you're addressing all

those issues. So thanks very much for a real informative briefing, we all enjoyed it.

MR. MILLER: Thank you very much.

MS. BUBAR: If only we had youthful exuberance, we'd be there. Right?

(Laughter.)

CHAIR RYAN: Thank you all very much.

MR. MILLER: All right.

MS. BUBAR: Thank you.

CHAIR RYAN: With that, I'm going to suggest we take a 15-minute break. I believe this is our last item for the record today, so we'll close the record at this point for the day. Thank you very much.

(Whereupon, the proceedings went off the record at 3:06~p.m.)

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