

**Official Transcript of Proceedings**  
**NUCLEAR REGULATORY COMMISSION**

Title:                   Public Meeting with Stakeholders to Discuss  
                                  and Receive Input on the Development of  
                                  NRC's Strategic Plan for Fiscal Years 2018  
                                  through 2022

Docket Number:       N/A

Location:               Rockville, Maryland

Date:                    July 27, 2016

Work Order No.:       NRC-2520

Pages 1-126

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING WITH STAKEHOLDERS TO DISCUSS AND  
RECEIVE INPUT ON THE DEVELOPMENT OF NRC'S STRATEGIC  
PLAN FOR FISCAL YEARS 2018 THROUGH 2022

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WEDNESDAY,

JULY 27, 2016

+ + + + +

ROCKVILLE, MARYLAND

+ + + + +

The Category 3 Public Meeting convened at  
the Nuclear Regulatory Commission, Two White Flint  
North, Room T2B1, 11545 Rockville Pike, at 9:00 a.m.,  
Butch Burton, Facilitating.

PRESENT:

BUTCH BURTON, NRR, Facilitator

MICHAEL R. JOHNSON, Deputy Assistant Director,

Reactor and Preparedness Programs, Office of

the Executive Director for Operations

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HOUMAN RASOULI, Deputy Assistant for Operations,  
Office of the Executive Director for  
Operations

MICHAEL WEBER, Director, Office of Nuclear  
Regulatory Research

NRC STAFF PRESENT:

JUNE CAI

UNDINE SHOOP

RICHARD SKOKOWSKI

STAKEHOLDER MEMBERS PRESENT:

NIMA ASHKEBOUSSI, NEI

JOHN BUTLER, NEI

PAM COWAN, NEI

DAN CRONIN, Public Participant\*

MICHAEL FLAGG, University of Missouri

CHARLES FLAMA, Public Participant\*

RICH JANATI, Public Participant\*

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JERE JENKINS, TRTR

MELINDA KRAHENBUHL, Public Participant\*

MARVIN LEWIS, Public Participant\*

GARY PETERS, AREVA

CHUCK PIERCE, Southern Nuclear

ROBIN RICKMAN, Terrestrial Energy USA

MARK TRUMP, Penn State University

\* Present via telephone

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## C-O-N-T-E-N-T-S

Call to order and Opening Remarks	5
William "Butch" Burton	
Facilitator	
Welcome and Introductory Remarks	10
Michael Johnson	
Deputy Executive Director for	
Reactor and Preparedness Programs	
Office of the Executive Director	
of Operations	
U.S. Nuclear Regulatory Commission	
Introductions	15
William "Butch" Burton	
Facilitator	
Briefing on Path Forward to Developing	18
the NRC Strategic Plan	
Houman Rasouli	
Deputy Assistant for Operations	
Office of the Executive Director	
for Operations	

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## U.S. Nuclear Regulatory Commission

Introductions of Those Around the Table	24
Open Discussion	25
Concluding Remarks	121

## P-R-O-C-E-E-D-I-N-G-S

9:00 a.m.

MR. BURTON: Good morning, everybody.

My name is Butch Burton. I'm in the NRC's Office of Nuclear Reactor Regulation.

I want to welcome all of you to NRC's public meeting to seek input to inform the development of NRC's Strategic Plan for Fiscal Years 2018 through 2022.

I will be serving as your facilitator for today's meeting. My role is to help ensure that the meeting is both informative and productive.

Before we get started, I would like to take a few minutes to go over some logistics. This meeting is being transcribed -- thank you, Sam -- and broadcast via webinar. And June Cai will be controlling that.

So, to minimize distractions and to ensure that everyone can hear the discussions, we ask that you please turn off or mute any device that

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rings, buzzes, talks back to you, anything like that, and minimize any side conversations.

Now, to get to the restrooms, for those who don't know, you go out of the door, hang a left, hang a right into the main hallway, go to the end, and then, to the left is the men's room, to the right is the ladies' room. You will need to be escorted, though, and I will talk about escorting in a couple of minutes.

If we are asked to evacuate the building, please follow the direction of the NRC staff and security. We will keep everybody together as we muster outside and make sure that we can account for everyone.

With regard to getting around the building, all visitors are allowed unescorted access on the main lobbies in both buildings. This will allow you to reach the cafeterias, the coffee counter, ATM if you need it, and the NRC's general store, all without an NRC escort. Access to any other areas, however, including the restrooms, will require an NRC staff escort.

Now today's meeting is a Category 3 meeting. For those of you not familiar with the

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NRC's categories, a Category 3 meeting is typically held with representatives of non-governmental organizations, private citizens or interested parties, or various businesses or industries, to fully engage them in discussion. These meetings provide an opportunity for the NRC and the public to work directly together to ensure that issues and concerns are understood and considered by the NRC.

The intended objective for the public at this type of meeting is to work with the NRC to provide a range of views, information, concerns, and suggestions with regard to regulatory issues. As a Category 3 meeting, there will be an opportunity for questions and comments.

When asking questions, please use the aisle microphone or, if you prefer, please raise your hand and I can come to you with a hand-held microphone. When speaking, please identify yourself and your affiliation and speak directly into the microphone.

For those folks who are sitting around the table here, if you do speak from your chair, you see that there are microphones directly in front of you. You will need to push the button to turn it on

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and, then, when you are done, you can push it again to turn it off.

For folks on the phone, you will be participating through our external operator Lisa, who will manage the bridge line. She will have all the callers on mute, so that background noise is minimized. When we open the phones, I will ask if anyone on the phone would like to speak, at which time Lisa will give you instructions on how to come online and make your comment. As with speakers in the room, please identify yourself and your affiliation and speak clearly and with volume directly into your receiver.

You can also participate via webinar. If you send in your comment via webinar, again, please identify yourself and affiliation along with your comment.

Now, hopefully, everyone has signed in. If not, you will find the sign-in sheets over near the door.

Everyone should also have a copy of the agenda, presentation slides, a summary brochure of the current NRC Strategic Plan, as well as a copy of the full plan, and two feedback forms, a stakeholder

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question form and a meeting feedback form. With regard to both the question and feedback forms, we would like for you to take a few minutes after today's meeting to fill them out and return them to us. For those of you on the phone, you can go to the NRC website and provide your feedback electronically. We take your feedback seriously and use the meeting feedback form to improve future meetings.

Now, as you can see from the agenda, we have a lot to talk about today, and we are going to try very hard to stay on schedule. So, we will have to be flexible with how much time we will have for questions and comments. And if we take a break, please return on time, so we can restart promptly.

Finally, participants are allowed recording devices during the meeting. Though you are not required to do so, we would appreciate it if you would let other attendees know that you are recording. So, what I would like to do is to start here in the room, and if there is anyone who is recording, could you let us know?

Okay, we do have one person who will be recording during the meeting. Thank you.

And, Lisa, I would like to ask folks on

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the phone if there is anyone who is going to be recording to let us know.

OPERATOR: One moment, please.

All lines are open to respond.

(Pause.)

There has been no response on the lines.

MR. BURTON: Okay, great. Thank you.

As already mentioned, this meeting will be transcribed to ensure we capture all of the questions raised and comments. NRC will collect the stakeholder feedback and will publish a summary within 30 days. The meeting summary will also include as part of the record the stakeholder question forms received as part of the meeting. Please feel free to use this form today by leaving it with an NRC staffer or by forwarding it to a meeting contact, if you have additional insights after today's meeting through August 5th.

Any comments, questions on anything I have said so far?

(No response.)

Clear as mud? Okay. All right.

Let's go on and get started. We will begin with a welcome and introductory remarks from

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Mr. Michael Johnson, the NRC's Deputy Executive Director for Reactor and Preparedness Programs in the Office of the Executive Director of Operations.

Mike?

MR. JOHNSON: Thanks, Butch.

Good morning, everyone.

(A few "Good mornings" in the room.)

Good morning, everyone.

(More "Good mornings" in the room.)

(Laughter.)

I do want to add my welcome to Butch's welcome and thank Butch for the opportunity to comment, just say a few words, as we kick off this important activity.

I sincerely appreciate your participation in today's meeting. This is an important activity for us, and we are going to benefit as a result of that meeting.

I also wanted to tell you that, if Vick could have been here, he would be here seated in this chair, making the comments that I am making. This is important, as I will say a number of times in a couple of slides that I want to cover for you.

So, yes, welcome and thank you for being

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here.

Next slide, please.

The mission of the NRC has been one that is well-recognized certainly among the staff, and we tout it with external stakeholders. It is, of course, related to our protecting or involved in our protecting public health and safety, common defense and security, and protecting the environment. And that mission hasn't changed since the formation of the NRC.

But, certainly, the environment in which the NRC has operated has continued to change, and we are mindful of that change, that constant change, and the need to change to be able to adapt and be successful in accomplishing that mission in this changing environment.

If you look back over the last 15 years, we have had a significant period of change, moving from, for example, 9/11, to the renaissance where there was great anticipation of new reactors and really a bow wave of applications as a result of that, increase in the number of fuel cycle facilities, for example, and so, a growing sense of what was possible in terms of the growth in the size in the industry,

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to recent years, where we have seen, for examples, as you well know, shutting down prematurely and an environment that is increasingly fiscally-constrained. And so, we recognize, we all recognize that we have got to continue to change if we are going to be successful in accomplishing our mission.

Beginning in 2014, as indicated on this slide, we began something that we have talked about a lot, Project Aim. Project Aim was really intended to make us more efficient, to make us more effective, and to improve our agility, again, focused on being ready for change, looking down the road.

Looking ahead, the environment that we are in, we expect to remain dynamic. We don't anticipate that we are ever going to have, at least in the near-term, more resources, or said another way, the environment will be increasingly, we anticipate, resource-constrained. And so, we need to continue to focus on continuing to effectively and efficiently carry out our safety mission in this dynamic environment.

Next slide.

So, given that environment, it makes all the more important this activity that is strategic

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planning. It is important. Strategic planning, of course, is an important part of what we do as an organization to make sure that we are ready to be able to implement our mission. The planning activity is important. The plan is critically important in terms of enabling us to move forward.

The process that we use to build that plan is that we identify the agency's strategic goals. We look at actions that we need to take to be able to realize those particular goals. And we focus in that process on how to address key challenges that we anticipate and external factors. And so, this is a part of that process that we undertake in order to have an effective Strategic Plan.

As a part of that process, obviously, this activity plays an important role. We will be seeking input from internal stakeholders, both managers and staff. We seek input from you, external stakeholders in the room, individuals, organizations. We seek input from folks who are joining us virtually. And you will see that continue throughout the process.

I want to emphasize that, for the staff folks who are in the room but also joining us remotely, and who will be engaged in the process, it

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really is an agencywide activity. We are engaged with the Commission. We are engaged among the senior leaders. In fact, we have an afternoon session, a session this afternoon where we will touch on topics related to strategic planning, making sure that we are aligned at that level of the organization.

We will talk through managers and to the staff, both in headquarters and remotely in our regional offices and at our sites. Again, it is an agencywide activity at all levels to make sure that the development process is robust and effective.

Houman Rasouli, who is sitting next to me, is our Deputy Performance Improvement Officer. He is going to provide an overall of the process that we use to develop the Strategic Plan. And so, you are going to see more about that. In fact, we have the Strategic Plan Working Group members, many of which are in the room, today who will help us implement the development process.

And so, again, we think we have got a good process. We will have agencywide alignment around looking forward on that process, and we have got an energetic set of folks who are going to help us get through the process to deliver a great result

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in terms of a meaningful Strategic Plan that we implement going forward.

There will be ample time for everyone certainly today in this session, but going forward, to provide input. So, we want you to take full advantage of the opportunity today, but going forward, to provide input. I know you won't be hesitant to give us ideas to move this process further along.

So, again, for the sake of time, I will just truncate my remarks with that thought. Again, I want to say welcome to you. Thank you in advance for your participation today, and we look forward to a very productive session.

With that, I turn back the floor.

MR. BURTON: All right. Thank you, Mike. Appreciate it.

Before we get into our main presentation, I did want to take a few minutes to introduce some of the other senior managers who are supporting this effort, some of whom are here; others may be on the phone.

But let me introduce Gary Holahan, Chief Technical Advisor in the EDO's office; Houman

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Rasouli, whom we have already introduced, Deputy Assistant for Operations in the EDO's office; Mr. Jody Hudson, who I understand is on the webinar. He is the Deputy Chief Human Capital Officer in our Office of the Chief Human Capital Officer. Dan Collins is the Director of the Division of Material Safety, State, Tribal, and Rulemaking Programs in our Office of Nuclear Material Safety and Safeguards. That is a lot.

Tim McGinty, Tim is here. He is the Director of the Division of Safety Systems in the Office of Nuclear Reactor Regulation. We have Vonna Ordaz, Deputy Office Director in the Office of New Reactors, in the back. We have Brian McDermott, Deputy Office Director in NRR. And finally, we have Mike Weber, Director, Office of Nuclear Regulatory Research.

We appreciate all of you guys coming today. I know your schedules are busy.

I also want to take a minute and identify some of the members of the Strategic Plan Working Group who will be carrying out the development Process. I will start with June Cai, running the webinar for us. Melissa Ralph, you probably can't

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see her, but she is back there. Dan Shapiro. Some folks will be here; some folks won't.

Bern Stapleton, I thought I saw him. Bill Gott. Rick Skokowski, again, behind the pillar there. Anne DiFrancesco. John Segala. Ilka Solorio. Joe Widdup. Oh, he is on the webinar. Okay, great. Matt Meyer. Chris Markley. Oh, a lot of people are on the webinar. Okay, good.

Victoria Voytko, Nick DeFrancesco, I know I saw him, right, there in the back? Brian Wittick. All you guys sitting in the back. Okay. Undine Shoop, she is upfront or everywhere.

(Laughter.)

Larnice McKoy Moore. Mugeh Asfhar-Tous. Susan Kenney. Oh, okay, so on the webinar. Trish Gallalee, and Dori Willis.

A long list of folks on the Working Group, all working to make sure that this is successful.

Okay. All right. I think we are ready for our main presentation, which will be provided by Houman Rasouli, sitting next to me, Deputy Assistant for Operations in the EDO's office.

Houman?

MR. RASOULI: Thank you, Butch.

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Good morning, everyone.

I want to also start off by echoing both Butch and Mike Johnson in welcoming everyone. This is an extremely important activity for us, and we are very happy to have you here, and hoping that you will provide us a lot of good feedback that we can incorporate into the Strategic Plan.

I am going to cover two main areas today. One of the structure of our agency Strategic Plan and, then, the process, the veto process that we go through to develop it and publish it. Throughout the process you will see that there are multiple areas where we try to get feedback from our external stakeholders, our internal stakeholders, as well as our government agency's partners.

So, at the highest level, the Strategic Plan that we published, the current version is the FY14 through '18. There is a detailed booklet that you can get from the front, and there is also a shorter version. This is kind of what we call the framework, and it is a highlight of the goals, the objectives, and the strategies that we put together.

The main goal of the Strategic Plan is, of course, to set a high-level plan for the agency

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for the next five years or so, and we use it as a basis for our budget development activities that we are going to be doing in the next five years and, also, as a communication channel, both for internal folks and our external stakeholders.

And the next version that we are going to be spending a lot of time on today and in the next about a year or year-and-a-half is the FY18 through the '22 Strategic Plan. That one is due, all the agencies are supposed to publish theirs in February of 2018. And this coincides with the first year of the new administration.

So, going on to as far as the detailed structure of the plan itself, the plan covers the mission and the vision. All right? And these are some of the things, in addition to the supported structure, that we would like to get feedback on.

The two main goals are our safety goal and our security goal that support our mission and vision. Underneath those, there are two main objectives: our safety objectives, which is kind of the outcome. What is it that we want to have as an outcome of our security? And then, also, the safety, what is the outcome of our safety that the agency

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wants to achieve?

Under these objectives, there are several strategies that help us get to those objectives. And then, there are also crosscutting objectives, strategies. These are our openness and our regulatory effectiveness strategies. And then, there are also management objectives. These are our human resources, our administrative, our IT, that will help us support the mission and the agency.

Underneath the strategies, as we get more involved in the development of the plan itself outside the framework, are activities that support these strategies. And then, these are the activities that we look at every year and help us with the budget development, whether we are on track, and how we want to continue updating it.

As far as the documentation and the guidelines that we use for development of the Strategic Plan, all the agencies use the Government Performance and Results Modernization Act of 2010, GPRAMA, as well as the OMB Circular 11, which I think the last one was published about a week or two ago.

On top of that, we have our Management Directive internally, which is the Strategic Planning

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Development Management Directive 6.10. It was just recently approved by the Commission, and it is in the process of being published. There are a few comments that the Commission has provided us, and we are making those updates, so they can be made public.

The process that we follow for developing the strategy and the plan, as I said earlier, it is extremely important for us to get feedback from our stakeholders. So, this meeting is an example of getting feedback from the public. There was also the stakeholders' meeting yesterday that the team was involved with, and a lot of the input that we heard through that meeting we will also be using as an input.

There are going to be other events that we are going to hold, both internally with our management, as Mike had stated, and the staff, as well as government-to-government meetings that we are going to be holding in the next month or so.

So, the team that Butch had talked about earlier today and introduced, they will collect all this information, and they put it into a draft framework. We also have an SES group that will provide guidelines and guidance throughout the

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process.

The framework goes to the Commission. We are planning right now about the fall timeframe for the framework to go to the Commission, get their input, and then, based on that, the team will start developing the detailed plan itself. This is basically putting the text, the activities, the strategies into it.

By the way, one of the things that we are changing with this go-round from the last time was more involvement from the Commission early on and getting their input and their strategic vision for the agency.

Once the plan is developed -- and right now, we are probably looking at the summer timeframe of 2017 -- we are going to also be getting OMB's input. That will go back to the Commission, again, for their review, their feedback. And then, once all that stuff is put together, it will be put, again, as a Federal Register notice for the public to provide us more feedback on the detailed plan. So, there are a lot of steps that we take to make sure that we are getting the right amount of input from our various stakeholders.

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Once that is done, again, we collect the comments. It is going to be about a 30-day period that it will be out there for public comments. We will collect all the comments. We will respond to them. We will update the Strategic Plan as needed. And then, it will go again through OMB review, through the Commission review, in time for final publication in February of 2017.

So, that is basically at the highest level what the Strategic Plan will cover and, then, the various steps that we are going to go through to develop it. Going back to how we started, that is why it is very important for us to be here and to be talking with you and getting your feedback, so the final product that we put together is the right plan for the agency.

So, with that, I will give it back to Butch, so we can talk about the actual questions and your input.

MR. BURTON: Okay, great. Thanks, Houman. I appreciate it. A good overview.

Okay. We are going to get into really the heart of why we are here today. But, before I do that, for folks on the phone, we have an array of

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illustrious individuals around the table, and I would like to take a couple of minutes and have them introduce themselves.

So, John, would you like to start?

MR. BUTLER: John Butler, NEI.

MS. COWAN: Pam Cowan, NEI.

MR. RICKMAN: Robin Rickman from Terrestrial Energy USA.

MR. FLAGG: Mike Flagg, University of Missouri Research Reactor and the incoming Chair-Elect for TRTR.

MR. PETERS: Gary Peters, AREVA.

MR. ASHKEBOUSSI: Nima Ashkeboussi, NEI.

MR. JENKINS: Jere Jenkins, Chair of the National Organization of Test, Research and Training Reactors.

MR. TRUMP: Mark Trump, Penn State. Run the research reactor there.

MR. BURTON: Good. Thank you.

And, yes, if there are other folks who would like to come up to the table, we have a couple of extra seats. Please feel free to do that. If you are out in the audience, I don't want you to feel constrained to provide input. You can come up to the

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microphone off to my right here, if you want to provide input.

Chuck, are you going to come? Sure.

MR. PIERCE: And I am Chuck Pierce, the Director of Regulatory Affairs, Southern Nuclear.

MR. BURTON: Okay, great.

Okay. So, how we are going to do the next phase, we have got, as you can see, some discussion questions that we are going to put up. For each question, we are, hopefully, going to have a robust conversation and input. As I said, we will capture that through the transcriber and make sure that everything is captured.

Okay. So, the first slide is up. What are the areas of strength that NRC should continue to build on, and what areas of weakness the NRC should strive to improve in?

Again, in terms of the level of the conversation, if you go back to Houman's presentation on slide 7, what we are really looking for is to get input on those high-level goals, objectives, and our implementation strategies with regard to safety, security, as well as management.

So, keep that in mind, but let's begin

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the conversation. I will start with folks here around the table. Areas of strength, areas of weakness? Anyone?

MR. FLAGG: This is Mike Flagg with the University of Missouri reactor.

Area of strength, unquestioned commitment to public safety. I would also encourage the NRC to continue their noted efforts on the transparency of the upgrade to ADAMS that happened recently. Some of these are mechanical. But the culture you have built, I think that is a known strength.

While we will be talking to weaknesses later, that is the first thing I do want to make sure you understand. We, at least my little piece of the community, these are unquestioned assumptions that you need to know we do see.

MR. BURTON: Great.

MR. TRUMP: Mark Trump.

Professionalism on the part of all the staff that we deal with.

MR. JENKINS: Jere Jenkins.

I would like to compliment the NRC on their openness and communication. We get exceptional communication from the Non-Power Reactor Branch.

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MR. BUTLER: John Butler, NEI.

I will add that it is very important to the industry that the NRC is seen as the top regulator, in my opinion, the top regulator in the world for nuclear power. So, that role, and how the NRC maintains that role, I see as a very strong strength.

The fact that the two goals in your Strategic Plan are safety and security, and your adherence to the mission of the NRC, I think is very important.

MR. BURTON: Good.

MR. PETERS: Gary Peters, AREVA.

Another strength would be the technical expertise. I mean, it is obviously a technical, complex industry, and the NRC needs to maintain that technical expertise to be able to answer the questions and regulate properly.

MR. BURTON: Okay, great.

MS. COWAN: Yes, I would like to agree with John in terms of being the world leader with respect to regulation and ensuring the safety of nuclear facilities.

I think an area for an opportunity for

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improvement might be -- I am not sure how to say this -- I guess in areas that the world is moving, such as digital and other more advanced, complex reactor types or systems. I think the NRC should focus on making sure that there is a framework within which to license those in a more expeditious manner perhaps, you know, a lot of focus on the technologies that are coming because that, ultimately, ensures safety as well, those technologies.

Thanks.

MR. BURTON: Okay, good. Okay. Other comments in the room before we go to the phones?

MR. PETERS: Yes, I will tie into what Pam said and what I said initially. You know, the current technical expertise is noted. However, in the 2018 to '22 timeframe there is going to be different technology that the NRC needs to be knowledgeable of and become an expert of, things like accident-tolerant fuel. Again, it will be a different process, a different fuel than we have been using for the past 40 years. You need to become experts on that fairly quickly.

Advanced reactors, non-light-water reactors, again, different than what we have been

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doing the past 40 years. NRC needs to become experts on that very quickly.

Small modular reactors where you are starting to become knowledgeable on those technologies, but, again, that is coming fast.

And then, what Pam mentioned, you know, Digital I&C. We are in a digital world, but our nukes are still analog in a lot of critical areas. So, again, we need to advance that. I guess I would see that as a weakness, that we are not advancing those yet. You need to come up-to-speed fairly quickly in that, especially in this '18-to-'22 timeframe.

MR. BURTON: Thank you. Very good. Very good.

MR. PIERCE: And I do agree that in this strategic planning timeframe the NRC needs to really focus on how they are going to come up with an effective program for the Advanced Reactor Program and really move that in a way that is dealing with all the different types of players that we have that are developing those reactors to date, entrepreneurs and utilities, and just different perspectives.

MR. BURTON: Okay, good. Okay. Very

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good feedback.

Let's see, do you have anyone offering up comments on the webinar?

Lisa, yes, we wanted to open up the line to some of the callers.

OPERATOR: Sure. Right now, we don't have any questions or comments. But, if you would like to make a comment, please unmute your line, press \*1, record your first and last name when prompted.

(Pause.)

MR. BURTON: I appreciate your patience. That is how this works.

OPERATOR: We have no comments at this time.

MR. BURTON: Okay. Thank you very much. The second bite at these two questions before we --

MR. WEBER: Do you want to go on to weakness?

MR. BURTON: Yes. Did anybody want to elaborate more on weakness? We got some input. Anybody else want areas for improvement?

MR. PETERS: I can add another one.

(Laughter.)

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MR. BURTON: Please.

MR. PETERS: Again, the NRC is a big federal agency, not necessarily considered nimble or innovative. But I think that may be something that you can strive for, to be the leader of the federal government on how to develop a nimble and innovative federal agency, to be able to move relatively quickly to help the industry and keep it advancing.

We continue to struggle with long projects working with the NRC. So, I guess that is the issue we struggle with, is being able to be nimble and innovative and having the NRC be part of that. I think you have got the opportunity to do it. I think your people want to do it. I think the industry wants to help you do it. So, I would strive for putting that as a goal.

MR. BURTON: Okay, great. And that is right in line with one of our questions that is a couple of more questions from here. So, that is good.

Go ahead. John?

MR. BUTLER: John Butler, NEI.

I would struggle with calling this a weakness because in many ways the NRC is probably way

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ahead of any other federal agency. But it is in terms of measurement metrics for performance. I think because some of the struggles we are seeing, it becomes all the more important that NRC have a capability to measure performance, to measure agility, to measure the things you are trying to achieve with the Strategic Plan. And you need to try to establish where you want to be in performance, establish the metrics, and make those as public as possible.

MR. BURTON: And the timeliness of the metrics.

MR. BUTLER: Right.

MR. BURTON: Lisa, I understand we do have a comment from Dan Cronin.

OPERATOR: We do.

Mr. Cronin, your line is open.

MR. CRONIN: Hi. This is Dan. Can you hear me?

MR. BURTON: Yes.

MR. CRONIN: Yes, since we are going to talk about weaknesses, I wanted to mention one for consideration. I am really glad to see the research and test reactor group represented here today. On

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that topic, research and test reactors are unique in that there are some constraints placed on the NRC under Section 104(c) of the Atomic Energy Act.

A few years ago, a past Chair of the NRC made a very public comment that the NRC mission itself was to protect the health and safety of the public and, then, quote, "regardless of what impact this might have on the licensee". Well, that was taken to heart, obviously, by members of the staff. Unfortunately, it fails to recognize some constraints placed on that authority in 104(c).

So, my recommendation is that maybe the NRC should consider reexamining this mission statement and strategic approach to research and test reactor regulation and formalize some type of review process to ensure compliance with the constraints imposed by the Atomic Energy Act.

MR. BURTON: Okay.

MR. CRONIN: Thank you.

MR. BURTON: Yes, that's good. Thank you.

And it does bring up a thought. We don't want to just get feedback from you with regard to reactors, whether research and test reactors or

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commercial reactors. We also want feedback from the community that deals with materials and waste. So, we want to get all that feedback.

But that was a very good comment. Thank you.

Okay. Others? Oh, yes, please, Jere.

MR. JENKINS: Jere Jenkins, TRTR.

Following on with what Gary said about timeliness, the NRC needs to be responsive, as responsive as they expect the licensees to be at various times, and not let license amendment requests linger for years at times. We would like to see a move for the NRC to be able to deliver license amendment requests, even the simple ones, in a more timely fashion, so that we don't have these things go forever.

One example of that would be a license amendment request just to change an org chart which has no impact on how the actual reactor functions, safety and security. It is basically an administrative change. Yet, that license amendment request review can yield 24 RAIs. That doesn't seem to balance with what the actual impact on safety and security is.

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So, to keep the NRC mission focused on safety and security is a good thing, but how much additional safety and security comes from this extensive review and hundreds of RAIs in some cases for reactors that have been operating safely for up to 60 years?

MR. BURTON: Okay.

MS. COWAN: Yes, this is Pam Cowan from NEI.

I agree. I would like to just chime-in on that point because I think a lot of discussion yesterday at the stakeholder meeting, one of the constant themes we heard was risk and making sure we risk-inform, so that we can appropriately assign resources, whether it is through inspection or whether it is through the licensing process. And so, we do see disparities in some fairly low-risk areas, like dry cask storage, taking a lot of resources and a lot of time at times to get licensed or with the inspections.

Additionally, I think that was mentioned with the fuel cycle facilities in yesterday's stakeholders' meeting. So, that is an area I think would help with safety, to make sure that the

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resources and dollars are appropriate based on the risk-informing and the safety significance.

MR. BURTON: Okay. Good comments. Good comments.

MR. TRUMP: Mark Trump, Penn State.

I would kind of like to back up a little bit and just talk about what is safety and security that we keep referring to. What are we referring to? What did the Atomic Energy Act mean when it says common defense and security of the nation? And who is the public? And what is their health and safety? And what are the greatest risks to the public today regarding nuclear materials in this country and the application of technology?

When the Atomic Energy Commission was split, DOE went its way and the NRC went its way. And there is a whole section of the Act that I would propose is not necessarily being adequately covered. I think that the NRC and DOE need to do a lot more talking to figure out what is left of that Act.

It seems to me that the greatest threat, 100 years after we started developing this technology, we still have a public that is desperately afraid of radioactive material, radiation. They know

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nothing about it.

When they invented street gas, people were afraid of street gas, but they finally put it in their homes because they wanted light. When they invented electricity, people were terrified of electricity, but they put it in their homes because they wanted better light and because the street gas was killing them.

We wanted energy too cheap to meter. We have now made it too expensive to produce except by the oldest technologies that we know how to do it.

The people are deathly afraid of radiation. When I was a kid, I can still remember vaguely -- or at least from movies -- duck and cover. You see the flash; duck and cover. Well, those movies went away. And when the Russians saw the flash, they ran to the windows and they got their faces shredded by that meteorite. We still need to teach that.

I remember using little detectors and looking at little sources in elementary school. That is all gone. The materials, in high school I got trained on radioactive material -- I had a radiochemistry course -- materials that would now require a license for the high schools to have, and

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they have been purged. They are all gone. There is no education.

When the first dirty bomb happens, the American public is not going to be harmed, but the ones in the area are going to be harmed by the bomb. The media is going to blitz the airwaves with 24/7 talking heads telling the American public how much danger they are in. They are going to be climbing in their cars and they are going to get killed as they flee. Their kids aren't going to come home from school and say, "Mama, you don't need to worry about this because we learned about this."

The long, slow process of education that radiation is not this horrible bugaboo has to be addressed. Between DOE, Homeland Security, and the NRC, we have to get the American public to understand. It is a long-term goal. It is the biggest single weakness this country has in regard to nuclear material.

Fukushima, we all know what Fukushima is. Do we even know the name of the tsunami that killed the 20,000 people? No, but we know the name of the plant that was blown up that didn't kill anybody. The distortion is terrible. The risk distortion is

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terrible. The public perception of it is terrible.

We need to address that. I don't know whose exact role that is under the Atomic Energy Act. The NRC, it is not mine. DOE, well, they are doing something else. Somewhere we, as a country, have to come to grips with that because that first dirty bomb happens; somebody is going to have to be held to blame.

Yes, the material should have been controlled better. So, somebody will get blamed for that. But the real deaths aren't going to be from the material. The real financial collapse will come from the terror. How do we address that? That is what threatens our country. Maybe it is too big for this, but somewhere some government organization -- and I would like to say you guys -- have to start the conversation. That's my comment.

MR. BURTON: That is interesting. So, just to make sure I am kind of getting the bottom line here, I heard a couple of things. This may be an opportunity for us to maybe even go back and look at really first principles from the Atomic Energy Act as well as, you said, an opportunity. What kind of

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role do we play in the general education of the public with regard to what we do, how we do it, why we do it, what challenges are out there today as opposed to 1954, or whatever?

MR. TRUMP: Exactly. We need a bigger picture of what security is. The nation's nuclear power plants have become the most defended facilities in this country. Y-12 was penetrated by -- what? -- some old nuns. That would not happen at a commercial nuclear plant. They are incredibly defended. There is a tremendous amount of money. There is a tremendous amount of money defending this building that is not defending schools. There is no special nuclear material here. I don't know why we are spending that kind of money.

But the real danger to America is ignorance, and we have no program whatsoever. There is no money being spent in this country anymore to teach the American public that -- how many years now since the first commercial nuclear power plant was demonstrated? The only radiation they don't fear is the radiation they get via medical application because the doctor says it is okay. And yet, that is the radiation that is likely to cause a problem in

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their future.

Whose job is it? Can the agency step back and look at security and safety of the public in a bigger way?

MR. BURTON: Very good. Definitely some good input to think about.

Did that stimulate any brain cells for followup from that?

MR. PETERS: Yes, I will follow up on that, and I think I will just try to summarize it a little bit. Again, since the NRC's mission and vision and requirements are the safety and security of the public, the public needs to understand the safety and security of nuclear power and what it really means to them and how it can affect them or can't affect them. They need to be educated in order to understand what the NRC is doing for them.

MR. BURTON: Good.

Jere?

MR. JENKINS: Because, obviously, there is a tremendous distrust for anything that starts with "nuclear".

MR. BURTON: This is Jere Jenkins.

MR. JENKINS: Sorry, Jere Jenkins, TRTR.

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Most people have the vision of Mr. Burns in the Simpsons for the nuclear industry. It is sad, but it is true. If you go on TV and talk about what is happening in the industry, they preface your comments to tell you: keep it at a sixth-grade level because that is really all we can count on anybody understanding.

This is a real problem, and we do have the corner in the market on ignorance in this country, particularly if you compare us to France or any of the other nuclear countries. China is building two plants a year. They are far beyond where we are. Of course, that is a different government structure, and they are just going to force it on everybody. We can't do that.

But, having been in the education business for nine years running a college reactor, I would bring 1600 people a year in to tour the facility, and every one of them would leave with the concept that, hey, this technology really isn't as dangerous as I thought it was.

And it is very important for that education mission. So that part of the safety of the public, which is part of your mission, is for the

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public to know that they are safe. It is the perception of their safety. So, maybe that really does fit very well into the NRC's mission.

The question, then, becomes, will the public trust the agency? Does the public trust the government? Does the public trust somebody with "nuclear" in their name? That is a question that will have to be answered. But I think it is critically important to what we are trying to do, which is protect the public safety.

MR. BURTON: Sure, please.

MR. RASOULI: I have a question, Mark. You brought up a very good point as the partnership between NRC, DOE, Homeland Security. What are your thoughts as far as also partnership and the involvement of the industry in this education?

MR. TRUMP: Well, if I go back in time, my career, I graduated from college in 1979, just two months after the Three Mile Island accident. In the throes of that recovery from that accident, the industry spent a tremendous amount of money on tours, public education. They funded the schools and stuff.

But, as deregulation came along, that all started back down because they started to need to

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save money. And then, 9/11 came and, of course, the final hammer came down. Now security was used as a reason not to have tours, period. That has opened up just a tiny bit, but it is still extraordinarily difficult to get even my college students, if I am trying to take them down, into a plant to see it.

So, the industry is struggling to survive. One could argue it is a walking corpse right now. We have no energy policy for this country. It is not your job to have it, but it is certainly something that I would offer up that the Commissioners need to be poking whoever they can prod about it.

We have no long-term goal other than we are going to build renewables, which is good because we need everything in the mix. But the commercial nuclear industry I don't think is in the shape to do much about it. If they were, they would be on television right now with commercials, "I'm an energy voter. Vote for nuclear." And you don't see that. You see, "I'm an energy voter. Vote for gas. Vote for oil," because they have money.

And I am not an expert by any means, but, as I watch the plants I used to work for being put up on the block for shutdown because they are single-

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unit stations, they aren't shutting down multibillion dollar facilities because they are making money or for a political statement. It is because they just can't run them economically when tax credits for windmills let them be penalized. Was it \$36 a megawatt hour they can take negative before they start making money at a windmill because of tax credits? You can't compete with that.

Unfortunately, we spent the eighties and nineties turning these things into baseload. So, the GE units which used to be able to be load-following can't anymore. The B&W can't load-follow anymore. And I don't know if any of the new designs were even considered to be load-following. So, I don't know if the advanced fuels are designed to handle maneuvering.

So, the industry is not going to be able to respond with a lot of money. But, with a little bit of regulatory relaxation, they might be able to get some tours going again.

MR. BURTON: Thank you.

MS. COWAN: I guess the comments on communication, I would like to actually give it strength. I do think the NRC is out there, and I

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think that is important, that you are perceived as a strong regulator. And I like the way that in certain communities where it wasn't warranted because there wasn't that level of interest it did go to an open-house format as opposed to a formal end-of-cycle meeting.

I think looking at where it makes sense and making those types of adjustments will better utilize resources and make the communications most effective. So, I do think from an openness, like the website is good; the listserv where you can get information if you want to, if you sign up, and I think getting out there in the communities like that in the appropriate manner is a strength. And I think that that level of openness is good.

But I do agree, for some reason, you know, we need to ensure that folks have an appropriate perception with respect to risk. That is where language such as, if you call something a failure, you know, a minor crack on a cask that is not a through-wall, we call that a failure; the public may be thinking something else. And that is where I do think some of the communication and meetings where there are members of the public, you know, it is just

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important to -- what we are saying and what they are thinking may not be the same thing.

MR. BURTON: Okay, good. Thank you, Pam.  
Robin?

MR. RICKMAN: Robin Rickman, Terrestrial Energy.

I just kind of want to throw in with what Mark has talked about and Jere has somewhat substantiated, and Gary also added to, maybe in simpler terms.

I think that Mark has laid out a reasonable argument that there is both a weakness and an opportunity for the agency in terms of safety and security relative to the public in the form of education. I would suggest as an opportunity -- and I won't repeat everything that Mark and Jere and Gary have said; we have all heard it -- but I would suggest there is an opportunity to really evaluate that at the agency level in terms of is there a place for the agency to take strategic action in the '18-to-'22 timeframe that would begin to address the situation that Mark very eloquently described for us.

And it does tend to always seem to belong to another organization in terms of what we call

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community or public outreach in regards to education about nuclear materials and nuclear energy as a whole and in all organizations over the last 40 years, and it is always somebody else's role. So, I would just suggest that that is an opportunity for the agency to look at.

MR. BURTON: Okay, very good.

Before we go I think to the next question, I wanted to maybe take a second bite at folks on the phone, Lisa.

OPERATOR: As a reminder, if you would like to ask a question or make a comment, please unmute your line and press \*1 and record your first and last name when prompted. If you need to withdraw the question, you may press \*2.

Give us a few moments, please. Thank you.

(Pause.)

MR. BURTON: Okay. After we check in here, we will come back to you, Mark.

(Pause.)

OPERATOR: There is no one at this time in queue.

MR. BURTON: Okay. Thank you.

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Mark?

MR. TRUMP: I would argue that the agency is excessively obsessed or risk-intolerant; that in my side of the regulation what I see is the definition of the public has shifted from the public or somebody who might be living near the plant or the general community to an individual literally chained to the fence 24/7 at my facility in terms of application of regulation.

There is an acceptable level of risk. In the community I live in there are gas pipes in the road and there is gas in people's homes. Occasionally, a home explodes. Okay? No one says we have to get rid of all the gas. No one says it is the gas company's job to protect every homeowner as if they were a member of the public.

In general, yes, the health and safety of the public means the general public as proposed under the Act, not every single individual. That does not mean we shouldn't form regulation and we shouldn't be risk-informed about trying to protect every individual, but the Act, in my interpretation -- and I'm not a lawyer -- is common defense and security and protecting the health and safety of the public is

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the general public.

The NRC's internal attitude by people who are evaluating things is they have to protect every single individual, the public, in the worst situation that could possibly happen, even whether it is real or not. The agency has become overly risk-intolerant in my area of the world, and there is no reward for a risk-taker inside the agency that I see.

No individual evaluator on a technical issue is going to take, I perceive, will take risk. So, there has to be risk training or something. There has to be some sort of guideline what is acceptable risk. Perhaps it exists; I don't know of it. I would like to get training on it, so that I could talk intelligently with the people who are evaluating my risks. And I wouldn't be sitting here saying you are risk-intolerant if I didn't think you were risk-intolerant and that there was no reward, or little reward, for anybody who is willing to accept risk.

And in a rapidly-changing society, digital instrumentation and other things, somebody sooner or later has to sign a piece of paper and say this is good enough. So, that is another one -- sorry -- on my list again.

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MR. BURTON: And let me follow up on that, and Pam, you mentioned risk also. What do you perceive as the adverse consequences of being risk intolerant? What have you seen?

MR. PETERS: The organization tends to be paralyzed. It can't move forward. LARs take months. It -- it stifles innovation. I mean, if it hasn't been proven for the last 30 years that this exact widget has been working great for the past 30 years, and you want to use a different widget, well, sorry, you can't use a different widget because nobody has proven it has worked for 30 years.

MR. TRUMP: If I can add quickly to that, if it was proven 30 years ago and has been proven lately with a new computer model, you can't use the 30-year-old one. You've got to go do it again.

MR. JENKINS: Yeah, that's what I wanted to follow up on. Jere Jenkins, TRTR. Yes, analysis methods have gotten better and better, but, you know, the safety analysis that these reactors operated on since 1960, 1970, 1980 has not really changed just because we can analyze better with tighter margins. The actual reactor that has been running is still running just as well as it was back then. The physics

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has not changed, but we can analyze it better. Why should we have to re-analyze seismic, because the seismic picture hasn't changed? Why should we have to re-analyze thermohydraulics when the reactor itself has not changed? Why do we need to look at even a more bizarrely hypothetical maximum accident, just because, well, now we have this cool analysis that we can do?

And that -- so then the license amendment, when we talk about stifling innovation, the research reactors where certain things should be able to happen because the risk is very, very low with these research reactors, if you look at, you know, most of the research reactors that are under two megawatts, the maximum hypothetical accident does not even include the reactor. It includes a mythical failure of a fuel element where you magically remove all the cladding. It is not involved in reactor operations.

So you -- you put in a license amendment, and then you get 159 RAIs back. Well what about this, what about this, what about this? And -- and we should not have to defend something that is not feasible, but that is the case where we are right

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now, just because, you know, the regulator says, well, we're smarter now than we were 20 years ago.

Okay, sure, you're smarter now than you were 20 years ago. You have better analysis methods. But the science of this has not changed. It is still the same.

MR. BURTON: Oh, okay. So yeah, Lisa, I understand Dan Cronin has a comment?

MR. CRONIN: Yeah, hi. I wanted to I guess tie a couple of the topics together. Earlier, I think it was somebody from staff asked about now who -- who -- where are these partnerships for public education? And that is in fact a large part of the mission of research and training reactors, it is to train the public in addition to basic research and research and development.

But I think one of the things that some of the staff may not recognize, at least in this room, is that in many cases, we're talking about university reactors that have one or two people on staff, and that's it. So when you get that RAI, you know, that -- that -- those 159 RAIs, that literally takes that professor out of the classroom and out of the doors, and it puts him in a -- in an office for three months

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answering RAIs.

So, you know, during that period, they're not training the students. They're not giving tours. All they are doing is trying to answer RAIs. The reactor is not running. And it's literally, that's the type of burden we're talking about here when we talk about, you know, we got a couple dozen university research reactors, and in many cases, that is a type of burden this puts on them.

And this goes back to my earlier statement about the NRC mission and its relationship to 104(c) of the Atomic Energy Act. You know, when that was written, there was a recognition that research and development, basic research and training, were a high priority, and so 104(c) was put into the Act specifically to ensure that only the minimum regulation would be placed on research and training facilities so that research and training facilities could conduct their important mission, and that includes training of the public.

So I just wanted to try to tie those topics together a little bit and stress what the other research and training reactor gentlemen have said, and why it is important, and, you know, at least make

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the point that in many cases, we are only talking about staff of one or two people, so it makes a big difference.

MR. BURTON: Okay. Understood. Okay, good. Mr. Skokowski? Oh, okay.

MR. SKOKOWSKI: Yeah, I just had a quick question regarding, you know, we're talking about the education of the public. Any insights on possibly how we can go forward with that and still maintain that we're not the promoters of nuclear energy or nuclear power?

MR. BURTON: Good question.

MR. SKOKOWSKI: Insights on that would be helpful.

MR. BURTON: Right. And again, you know, if you need time to think on that, you know, there will be opportunities to submit your thoughts later if you want, but if you have something now --

MR. PETERS: Well I think that the way to get through that -- that wall, to say hey, we're not really promoting it, we're the regulator, we're keeping you safe is basically to -- to educate the public on what the NRC does and -- and why the plants are safe, because you're -- you're providing

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continuous oversight, constant oversight, a strong set of programs and inspections, so you're basically, you know, proving to the public that these plants and this technology is safe and you're doing your job keeping them safe. So you're not promoting it, but you're just promoting what you're doing as a regulator.

MR. BURTON: Okay.

MR. TRUMP: Mark Trump. I would -- I would go a little further than that and say it is not hard to -- to tell them -- teach the public that knowledge is a good thing. They know how to handle gasoline that they put in their car every day. They run around with 15 gallons of high explosive in it, and they know how to safely handle it, in theory.

This -- they need to understand that -- what is -- what is radiation, what is radioactive material, how safe is it, when is it unsafe? Right now, recently, the Smithsonian had a display which included, I understand, hands-on with detectors and sources that the kids could play with, and the parents got upset because their kids were getting exposed to radiation, so the display was pulled.

Where -- does the NRC have a role in that?

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No, except maybe that they should have signed up on the thing, "The NRC has evaluated the display and it is absolutely safe."

The -- we -- you need to have a forward face in all of these things, every opportunity we get to interface with the public, to take a little bit of fear out. It is going to take 20 years to change the American public because you've got a generation we'll have to change because they have all grown up in complete fear. I didn't. We grew -- when I grew up, it was the hope of the future, too cheap to meter. Boy, things have changed.

MR. BURTON: I want to take a couple more questions and then -- or comments, and then we've still got like four questions we want to cover, but go ahead, Jere.

MR. JENKINS: Jere Jenkins, TRTR. And to compliment the NRC, you do have this information available on your website. I mean, it is -- it is there. There's graphics, there's all sorts of things that you talk about, relative risk, and, you know, here is 500,000 millirem is not a good place to be, and your chest x-ray is down here. I have seen all those points. It is all good. But nobody is going

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to go to the website on purpose, and that's really what we're talking about.

The government runs billions of dollars in advertisements every year to talk about, you know, your college loans or any other particular thing. Why, and this may not be NRC's job, I get it, it could be DOE or DHS, but why aren't we seeing anything else that, you know, is something that could dovetail into what we're talking about today?

And even, you know, what Gary said, you look at the -- at the things that have happened within the industry, or within, you know, back in 2007, in the ABC investigation of -- of research and test reactors, the agency came off looking bad in that, and it hurt everybody. We were doing our jobs and educating the public, or so we thought. We could have handled things a little bit better on our end as well.

But when -- and you know that ABC News is not going to try to put anybody involved in this in a good light, but the agency did not look good through all of that, and that ended up with, you know, congressional investigations and you guys spending a lot of time and money trying to unscrew that

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lightbulb.

So, you know, these are the sorts of things when you talk about the mission that should be at least considered.

MR. BURTON: Good point. Pam, were you going to say something?

MS. COWAN: Yeah, I was just going to say something on communication because I agree. I mean, it is your role to regulate, and I don't want you to ever be seen as promoting versus regulating.

But I do think, you know, when we make adjustments, say, to the emergency preparedness schemes or other areas that do touch the public and do make a difference, I know that the change when we had to go to I think it was if you couldn't verify you didn't have a fire within 15 minutes, then you needed to report, and so there were, you know, different areas of the plant that were not as easily accessible, and if you had a failure of a sensor or something and you couldn't verify you did not have a fire, then all of a sudden, you know, you had to declare an unusual event.

And it is items like that where it's sort of like weighing the, you know, here we're going out

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to the public saying we have an unusual event at the plant, which, you know, can put stress on a community, it depends, versus, you know, is that really where we want to be with respect to, you know, the aspects of emergency preparedness and what we expect and what is needed to protect the public?

And so that is -- you know, it is just an example, but it is more of a -- you know, in thinking through some of the reportability requirements for if we have, you know, two interlocked doors open because two people happen to pass through at the same time, it's for a second, but again, it's an immediate report, you know, a four-hour, an eight-hour report to the NRC. It's stuff like that where it does -- you know, that's where the public -- it touches the public, is that type of information, the reports and the emergency classifications, that, you know, it's just more of a thinking through some of the communications aspects, or is that really -- really, you know, what we want to regulate to, or where we need to be? So --

MR. BURTON: Okay, good, good. Last one, Mike, you sure you -- okay. All right.

If it is okay, I think we would like to

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go to the next question.

THE OPERATOR: The next question comes from Rich Janati. Your line is open.

MR. BURTON: Okay.

MR. JANATI: Hi, Rich Janati. Can you hear me?

MR. BURTON: Yes.

MR. JANATI: Oh, okay, very good.

A couple of comments related to -- to the indications on public involvement. If I recall, several years ago, I provided testimony to the NRC Commissioners on the new reactor oversight process. Back then, the -- the current process was a new process to be implemented. And one of the things that I pointed out was that I believe that the resident inspectors should play a more proactive role in educating and informing the public about nuclear power plant operations, and the reason is that the resident inspectors work and live within the community.

And unfortunately, one of the problems is that -- that the resident inspectors' offices are within the protected area of nuclear power plants, so the public really does not have access to resident

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inspectors as much as they should.

So that's one area that I pointed out several years ago, and I have not really seen a lot of improvement or changes in that area. The other thing relates to communicating risk, or risk communication, with the members of the public. The public is not really interested in risk assessment, okay? It is complicated. Once you start talking about probability and things of that nature, the significance determination process, which, by the way, I have supported and I continue to support, but a member of the public really does not understand it, and it is complicated, and because of that -- but they understand risk management.

If you tell them what the risks are, for example, associated with operating a nuclear power plant or any other nuclear facility, and you explain to them how you're managing that risk, for example, environmental monitoring, having radiation detectors and things like that, then the public understands it.

So I think you need to focus more on risk management and not as much on risk assessment. Those are the comments that I have. I appreciate the opportunity.

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MR. BURTON: Okay. Thank you. Thank you.

MR. JANATI: You bet.

MR. BURTON: Okay.

MS. COWAN: Can I just give --

MR. BURTON: Oh --

MS. COWAN: -- can I just give a compliment to Rich? I do think the State of Pennsylvania, you know, they show up at meetings, you know, they're well-informed, you know, and then when the public asks questions, they are in the details, and they're able to answer them, so I think that also adds to confidence in the State's involvement.

MR. BURTON: Okay. Very good. Okay.

THE OPERATOR: If you'd like to ask a question, please press star 1.

(Pause.)

THE OPERATOR: And I am showing no questions at this time.

MR. BURTON: Okay, great. I think we're going to go on to our next question now, if you wanted to call that up.

(Pause.)

MR. BURTON: What opportunities and

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challenges should the agency be aware of and consider for the strategic plan update? Again, I think we got some of that previously. Is there -- is there anything else people want to say on that? Please, Jere?

MR. JENKINS: Jere Jenkins, TRTR. We should always keep in mind the economics of -- of what the regulator is -- is forcing the licensees to do. The utilities don't have a lot of excess capital right now. The research and test reactors don't have a lot of -- they have no -- they have no staff, they have no money. The non-production user facilities, everybody -- everything is driven by economics, and so when you look forward to new regulations, you know, and -- and the risk impact and the safety impact of those, but you should also be able to look at the economical impact on what that's going to do to your licensee, particularly for the smaller facilities.

MR. BURTON: Okay. And that's interesting. Yeah, that does bring up a couple of things. One of the things over the last few years we've been talking about is the cumulative effects of regulation and how it impacts, so it speaks to that. Other thoughts on that? Oh, please, Robin?

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MR. RICKMAN: Robin Rickman. Not a thought on that --

MR. BURTON: Oh, something else --

MR. RICKMAN: -- but a new thought --

MR. BURTON: -- okay --

MR. RICKMAN: -- is that okay?

MR. BURTON: Okay.

MR. RICKMAN: I don't mean to stifle the discussion. I just simply want to make this challenge -- I just want to put it on the table so that it's part of the record. I think it is part of the record, it has been part of the record for the last year, year-and-a-half, two years. However, the challenge that surely needs to be considered as the strategic plan is developed is that that is coming from the upcoming advanced nuclear technologies that the agency will be asked to review in what I would call the nearer time frame, sometime prior to 2030, I guess if that is near enough.

But I just would like to make sure that that challenge is on the table. I think the agency clearly understands that's coming, but as part of the strategic plan discussion, I'd like to ensure that it's included.

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MR. BURTON: Okay. And that kind of speaks to the earlier conversation about advanced technologies and risk-tolerant fuel, digital I&C. Okay.

PARTICIPANT: We have Dan Cronin.

MR. BURTON: Oh, okay. Lisa, it looks like Dan has a -- wants to weigh in.

(Pause.)

MR. BURTON: Lisa, are you with me?

THE OPERATOR: Dan, if you'd like to ask a question, please press star 1.

(Pause.)

THE OPERATOR: Dan, your line is open.

MR. CRONIN: Thank you. I'm sorry about that. A challenge, and one that is well known within the NRC and the industry, is the need to implement digital I&C. When the Commission -- the Commission put out, what is it, SECY -- SECY-15-0106 and directed the staff to come up with an integrated strategy for digital I&C.

That is something that probably, in my opinion, anyway, raises to the level of something that should be in the strategic plan. It -- I think back to molybdenum-99. That was put in the strategic

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plan as a priority for the research and training reactor staff to develop, you know, a plan to license that, and it was obvious that that was taken very seriously by the staff, and they put a lot of their resources in that group into the development of moly-99 licensing processes, and it has been a -- so far, it has been an unqualified success. It was spoken about yesterday with the Commission as a real success for the NRC, and maybe that same prioritization for digital I&C would help by putting it in the strategic plan and making it a real priority, you know, an even bigger priority, I should say. Thank you.

MR. BURTON: Well that actually brings up a question, I think, for Jere and Mike. For the advanced technologies, digital I&C and other such things, for smaller entities like you guys, is that -- and you mentioned before about cost considerations -- is that something that you guys are looking at, or would we be looking at as regulators, almost a bifurcation of things, where some of the bigger organizations have the resources to advance those kind of technologies, but others may not? Yeah, please.

MR. JENKINS: Jere Jenkins, TRTR. The

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technologies are already out there, and the research and test reactor community has been trying to implement those technologies. What we run into is, you know, we're pushing the NRC into a place that they are not comfortable because they don't have the technical expertise, and so in this case, it would appear, and this is, you know, not a condemnation of how things are done, but it would appear that the NRC is now being reactive instead of being proactive. They were not ahead of the curve.

Some of this technology already operates very successfully overseas in commercial power reactors, yet we are forced into a condition where it is up to the licensee, and we are looking at certain of the university reactors, you know, you're again talking about a staff of one or two, where they have to prove to the nth order RAI that this system is safe, even though it has proven operability.

The research and test reactors are the ideal place to test out this technology in the States, and some type of regulatory framework to license that technology in the United States, because, again, we are talking about extremely low-risk facilities, particularly for the facilities that are less than

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two megawatts. Again, we're -- again, the maximum hypothetical accident does not include reactor operations.

So, you know, it seems to me that it -- that it can be, we don't want to call it a symbiotic relationship because the regulator and the licensee should not be in a cooperation state, but it's a place where the test reactors and the research reactors can test this technology in the NRC licensing framework.

MR. TRUMP: If I may add on, Mark Trump, the Act specifically directs the NRC in this area that -- that they shall not make regulation -- they shall promote research and development by utilizing these facilities, and that has been stymied by the -- the uncertainties associated with digital technology. There is no quantifiable risk to the public, but there is quantifiable risk to the individuals who may make the decision that there is reasonable assurance.

It really comes down to the application of the word "reasonable assurance," who the public is, and what health and safety is. In the case of the vast majority of research reactors, there's published NRC documents that say there is no credible

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mechanism that the public can be injured by these facilities. It's a NUREG.

The discussion on digital technology and its impact to the public should stop there. There is no credible mechanism that the public can be impacted by this fuel or this reactor. So putting in place digital technology as a test bed, as supported by the Act, should be a relatively painless process, but it has proven to be anything less than that -- or more than that, whichever way that sentence worked out.

MS. COWAN: I guess at a strategic level, since this is the Overview of Strategic Plan, I know I heard yesterday it is adequate protection, absolute protection, you know, what is that threshold for what's acceptable? And I think from a strategic aspect, you know, the agency needs to really look at that and think heard about how that gets drawn and how that gets communicated and into the culture.

MR. PIERCE: And this is Chuck Pierce, Southern Nuclear. There's also a number of other elements discussed yesterday that I would suggest that you might want to bring into your strategic plan, such as a security issue in the function of NSIR, and

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going back to first principles, as was brought up earlier. Some of the inspection challenges that we've seen in the -- in the late -- late RAI processes, and you're right, absolutely the issue of adequate protection and how that fits in. So I would suggest that you -- you know, put on the record you put a lot of attention into some of the discussions yesterday as well as part of your strategic planning.

MR. PETERS: This is Gary Peters, AREVA. You know, as far as preparing your update and the process you use to prepare this update, you know, I would recommend that you -- that you look at your '14 to '18 strategic plan and give yourself a real hard look as far as grading yourself or evaluating did you complete the strategies and the objectives that you outlined in '14 to '18?

You know, really understand, okay, we put a lot of work into this thing, did we accomplish what we think we were supposed to accomplish in the '14 to '18 period? If yes, great, check it off, don't need to worry about it. If no, then it needs to carry forward into your next strategic plan if it is still important.

So again, there was a lot of work that

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was put into the '14 to '18 plan. Evaluate how effective it was, evaluate if you've met each of the objectives, and use that as your guide to preparing your next four years.

MR. TRUMP: Just to add on to what Gary said, if yes, what were the tools and methods used to make that one successful? Can they be imported over?

MR. PIERCE: And again, just to add further to that, you -- in looking at the development of this plan, I think you need to look at it and say, okay, now, for this particular strategic item, what is the measure of success? What would be the -- what -- you know, where would I be able to say I have met this particular strategic item? And I think it was earlier mentioned about performance indicators, you know, come up with something objective, that's very objective, and even might want to look at it from a performance point of view, and establish what is success for the particular areas.

MR. ASHKEBOUSSI: Nima Ashkeboussi, NEI. And just to follow up a little on Pam's comments and some of the others, in addition to looking at, you know, adequate protection from a strategic level, it also needs to be looked at on a graded approach. So

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the risks and adequacy for reactors are different from RTR, it's different from fuel cycle facilities and uranium recovery licensees.

So we heard a little bit of those comments yesterday on the oversight programs for uranium recovery and fuel cycle facilities and the amount of resources that go into evaluating those licensees that have significant orders of magnitude less risk than an operating facility, so it has to be looked at on a graded approach as well.

MR. BURTON: Okay. Mike, you?

MR. FLAGG: This is Mike Flagg, University of Missouri. I want to point out a couple of opportunities that I think a number of us see for the NRC.

One, DOE continues to seem like they're getting a lot of good traction with Congress on the idea of a new test or research reactor in the DOE complex. DOE has explicitly stated that they will build this so that it can be approved by NRC. They have said, at least in the two meetings I have been at, they have stated that. So this isn't just DOE going to go do their thing like it was 1955 at INL. I think this is a fantastic opportunity as they are

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going into the next phase of planning for that to, as we talk about advanced reactor, advanced technologies, you've got a really good opportunity which you're probably already taking advantage of, but as a strategic goal, it's in my opinion worth committing some words to paper and some focus to working better with our friends at DOE because this is a unique opportunity. It looks like it may have traction.

There's a second piece as well on the opportunities. As we see nuclear has a different environment in a lot of other countries, there are places deploying advanced technologies where NRC could actually, in my opinion, benefit by having stronger liaisons. You're going to light up an AP1000 in China. Well, you're going to be seeing one light up in the U.S. as well. You can get ahead of the curve in terms of talking with our Chinese partners, if that exists.

NPUFs: Australia is about to commission a very large molybdenum-99 facility that would have a lot of similar aspects to the one proposed by Northwest Medical which is on the docket. I don't know if anybody - I doubt anybody at NRC is going to

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say no to a trip to Sydney to go see this facility as it comes up and talk with our friends at ARPANSA. There are a number of places all around the world doing unique things with unique technologies that I think you've got a lot of talent, you can see how other people are handling new technologies before they come to the U.S. and maybe even find out why are they being deployed there instead of the U.S. and talk to that as well.

I think those are some interesting opportunities, and again, you're probably all over especially the ones that have to do with power reactors. That's not my space. But I just wanted to bring that up.

MR. BURTON: One thing I think I'd like to ask is your perception of our constraints, and what I mean by that is can Congress budget things like that? What is your perception of what our challenges are in that respect? Yes.

MR. FLAGG: Again, from the non-power perspective, I look at, you seem to be constrained by our friends at DOE perhaps not embracing the full scope of what their mission was supposed to be when the various agencies -- when, you know, when AEC and

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ERDA and whenever it all deployed outward.

So, you know, we're sitting here asking, you know, hey, we and the university community have a mission to educate. Well, it sure would seem, you know, a Department of Energy with an Office of Science would be a really neat place to deploy some education as well. So we're pushing on a -- it's -- part of it is the problem of your success and your professionalism. You are actually -- while we all can talk about weaknesses all day long, you're a strong regulator. We don't have to always like the results, but that comes from working with a strong regulator.

When others are not meeting their missions, people turn to places that still do work, so I think in some aspects, you're being asked to do perhaps more than your remit because you've shown a level of effectiveness. Obviously, again, this doesn't touch my world directly every day because we're a -- the class of my facility, but as we talk about how you interact with the community, you're constrained in my opinion by the hourly rate fee structure because that -- the vast uncertainty that especially new technologies would face, if you -- you

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know, wow, wouldn't it be neat if you had an alternative mechanism to say, look, I'm going to give you a number. You may not like the number, it's going to be a high number, but this is a flat fee, and this is what it's going to take for you to deploy molten salt through our regulatory structure instead of vast numbers of RAIs at \$280 whatever an hour, iteration after iteration with no clarity.

So that's a constraint that I think has been put on you, and you've got a good staff, but they're going to analyze these new technologies to death, that lack of clarity may be a problem.

MR. BURTON: Okay. I think that's good insight. Okay, oh --

MR. TRUMP: If I may hop on that, again, if we go back to the Act, the Atomic Energy Commission had the responsibility to promote, so we're faced with new technologies that are being developed that are in support of the countries that fulfill the responsibilities under the Act. They're not being supported by the Act as they were directed by Congress to be supported. In my opinion, DOE is not doing its job.

I have seen through some limited

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experience with the NRC, when the NRC goes to the DOE and says you need to do something -- in the case of re-licensing of the research reactors, NRC went to DOE and said you need to do thermal hydraulic analysis to support re-licensing of these old machines, and DOE coughed up the money.

DOE is always looking for things to spend its money on. You know, as somebody who is -- who watches the way they work, you know, the -- the government research labs, you know, they need to spend the money they get on themselves. It is -- it is interesting sometimes to see them do it, but if you -- you can stimulate them, I think you have a good mechanism to stimulate them to support the development of these new technologies. I am just not sure it is being exercised as well.

Again, you look at the Act as a whole, you split it up, there's three pieces: DOE, NRC, there's some overlap there, and then there's a section that's no longer being serviced, and I'm not sure that Congress cares, because it's not looking at it, because if it were, it would say here's our energy plan for the future, and DOE, go do it. Well, we don't have an energy plan.

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So there is a section of the Act that is not being serviced, and the support of new technologies and the deployment, if you look historically, was supported extensively by the Atomic Energy Commission, and now that is not happening, except DOE supporting itself. My opinion, perhaps an uneducated one.

MR. JENKINS: So I -- Jere Jenkins, TRTR. I think the simple answer to your question, Butch, at least from my perception, is that the NRC, at the end of the day, your constraint is you have to be able to stand up in front of One White Flint North or go to the Hill and say that the industry, the whole industry, research and test reactors, utilities, non-production, you have to say -- you have to be able to tell the public that they're safe and secure, within the constraints of your budget provided by Capitol Hill. And those are your overarching constraints, and everything else has to lead up into that. I mean, it all goes to what your mission is.

So that's at least my perception, and I think that is probably the perception of most everybody. But we can get down, and I know that the intent of this meeting wasn't to get into the nitty-

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gritty details, but we can keep bringing you examples of places where we think you may be overdoing it a little bit. And, you know, we have budgets too. The infinite well that you expect a new technology producer to have to pay \$280 an hour for you to license a new technology does not exist, you know.

The investors for a Midwest consortium that wants to make moly-99 is not going to want to see their project get raked over the coals for something that is way -- far beyond where it probably should have gone when you're not even talking about reactors in particular, so that's my short answer.

MR. BURTON: Okay. Okay. I think, and I'll just say, after we finish this question, I think it probably would be appropriate to take a few minutes' break. But --

MR. PETERS: Okay, yeah. A quick one that probably needs to show up in this '18 to '22 time frame would be some words about subsequent license renewal or second license renewal, you know, something about, you know, efficiently using the new second GALL or subsequent license renewal GALL process and -- and processing the applications that are coming in this time frame. I mean, that process

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is going to start within this time frame.

MR. BURTON: Okay.

(Pause.)

MR. BURTON: Okay. Okay. Very good. Can we take a minute, Lisa, see if anybody wants anything on the phone?

THE OPERATOR: At this time, if you'd like to ask a question, please press star 1. Your next question comes from Rich Janati. Your line is open.

MR. JANATI: Thank you. Can you hear me?

MR. BURTON: Yes.

MR. JANATI: Oh, very good. A couple of quick comments.

In the development of this strategic plan, what I would like to see is a -- is a set of criteria that the NRC has established, or NRC intends to use, to develop the strategic plan, and specifically, to prioritize the NRC activities.

What are those criteria? Obviously, public health and safety, security, they are examples of the criteria that I'm talking about. So I would like to see that. And then also, in my view, and I

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think somebody has already mentioned this, the strategic plan should be inclusive and comprehensive. It is not just for reactors. It is for medical facilities and -- and other issues that are important to the nation as a whole.

For example, the lack of isotope production facilities in the U.S. is an issue. Should we look into means and ways to expedite the license review process for license applications for isotope production facilities? Problems with radioactive sealed sources, there are some issues associated with management and disposition of radioactive sealed sources.

So -- so, you know, in developing the -- the strategic plan, obviously, NRC should seek input from various organizations, whether it's CRCPD; NEI; OAS; or the Organization of Agreement States; or the Low-Level Waste Forum, to seek input and then to prioritize NRC activities based on a set of criteria, which I have not seen. It is probably there, but I haven't seen. Thank you.

MR. BURTON: Okay. Okay. Good, thank you, Rich. Other comments on this question from folks on the phone?

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THE OPERATOR: As a reminder, if you would like to ask a question, please press star 1. One moment please for your next question.

(Pause.)

THE OPERATOR: Again, if you would like to ask a question, please press star 1 and record your name clearly when prompted. One moment.

(Pause.)

THE OPERATOR: Marvin Lewis, your line is open.

MR. LEWIS: Thank you. This is Marvin Lewis, a member of the public. I hope everybody can hear me.

MR. BURTON: Yes, we can.

MR. LEWIS: Wonderful. All right, look. First question: you're asking about some kind of list of what you need to do, when, and how. All right. I have a very appropriate, I believe, suggestion. Take a look at your charter. In your charter, it states nine times, "protect the health and safety of the public." You can put it to music.

And it seems that you're getting further and further away from protecting the health and safety of the public. Furthermore, I hear the way you're

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trying to cut this part into sections, that you don't seem to understand that this is a nuclear fuel cycle. You don't take one part out of it and forget the rest of it. No, no, no. It has to be from birth to death, and we sure are forgetting an awful lot therein from the -- the spills of radioactive milling ore to the -- to the geological repository which we still don't have.

And this is no way -- this is no way. And I find -- I find the whole -- the whole business you're discussing objectionable in that you don't seem to understand, read the charter, protect the health and safety of the -- of the public. Thank you.

MR. BURTON: Okay. Thank you, Marvin. I think what I'm hearing you saying is that you feel like somehow we're losing the big picture of the full fuel cycle. Is that what -- the message you're trying to convey here?

MR. LEWIS: Amongst other things. Let me take a specific example. Where I sit, in my own kitchen, I sit almost within view of I-95 in northeast Philadelphia. Within a few feet of I-95, there are railroad tracks. Those railroad tracks carry 100

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tank cars of Bakken crude, highly volatile. I admit, it is petroleum. It is not uranium. It is not radioactive.

Now, suddenly, the NRC wants to bring down HEUNL radioactive waste, liquid -- highly enriched uranium, 98 percent uranium-235, in nitric acid. And can you imagine? We have had trains flip over, 200 passenger cars, 100 in the hospital, eight dead. All right. Eight dead, big deal. Well it is a big deal to me. It happens within a mile of my house. And nobody is looking at the transportation issue at Marvin Lewis's kitchen, and I find that very personal.

And this is what I see all along the route. Every time I listen to you people, you are ignoring everything, and I can put it into -- in the NRC's own documents, namely, Three Mile Island Alert pointed out the lack of security at Three Mile Island just recently, within the last couple years. What did the NRC do? Lost several TMI A -- or TMI -- TMI Alert comments and -- on the issue, and actually increased the access, the uncontrolled access to Three Mile Island, the actual physical place, with six lanes coming in.

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And anybody could pick up a -- you know, an 18-wheeler and wheel it in there just like on some French street in Nice. I am not impressed. I am not impressed. I don't know how to get it across to you. I do not see any way, shape, or form that you are protecting the health and safety of the public.

Take a look at what EPA has just done. It has just put out -- and this was the last day, no, yesterday was the last day, no, Monday was the last day that comments could be made on it. Where they have gone for radioactivity in drinking water is 400-500 picocuries per liter, which means a lot of -- a lot more white males will die from that kind of radioactivity --

MR. BURTON: Yeah, Marvin --

MR. LEWIS: -- in the case of an accident.

MR. BURTON: Marvin --

MR. LEWIS: Well that bothers me. I happen to be a white male, you know? And I'm not saying how many women or children or fetuses will be adversely affected.

MR. BURTON: Yeah --

MR. LEWIS: But this is what I'm trying

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to get across to you, and I can't seem to get it across to you. This is not an overall issue. This is an overall issue. But at the same time, it's a personal issue to me. I look out my window. I see what's going on in Philadelphia. I see what's going on in the country right on my computer --

MR. BURTON: Yeah --

MR. LEWIS: -- I am not impressed.

MR. BURTON: Marvin --

MR. LEWIS: I hope I'm getting it across

--

MR. BURTON: Yeah, yeah --

MR. LEWIS: -- though I doubt it.

MR. BURTON: -- I think -- no, I think we're hearing your point. You know, you're dealing at a level I think that is probably beyond what we're trying to do here today, but yeah, I hear your point

--

MR. LEWIS: And that's my point, it is always beyond you. Why is it always beyond you to see the danger you're talking about? You are supposed to be there. I am supposed to be here. But you can't see, you can't even see what's in front of you. You cannot see what the dangers are. You

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cannot see that with -- the technology has advanced to the point where we can use an x-ray, x-ray and other neutron devices, to -- to impose tumors in the brain and the kidneys and what have you, and we can get away from using the -- the techniques from 99 and --

MR. BURTON: Well --

MR. LEWIS: -- molybdenum-99 which are presently used.

MR. BURTON: Well Marvin --

MR. LEWIS: And --

MR. BURTON: -- the takeaway I'm getting from you is that, you know, as we formulate this strategic plan, even though we're talking now at a pretty high level, you want us to understand and be sensitive that there are very much on-the-ground consequences that we're dealing with. I mean, that is what I am taking from your comments.

And I think -- I think we're hearing that, and we're going to -- we appreciate that as we move forward. I think I'd -- I'd -- we need to take a break, if that's okay with everybody. Do I see heads nodding? Okay. But thank you, Marvin, and I want you to continue.

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Yeah. We have -- actually, the concerns that you have, we handle in separate process than -- than this one specifically, but we always want to try and understand the consequences of what's going on on the ground by what we're deciding here at this level.

I am going to suggest we take maybe ten minutes. Does that sound reasonable? So we'll be back in 10 according to that clock, which would be just about 11:00. And we'll pick it up again with our next question. We've got three more we want to get through. Thank you.

(Whereupon, the meeting went off the record at 10:50 a.m. and resumed at 11:01 a.m.)

MR. BURTON: Okay, I think we want to go on and get started. We already have the next question up which actually I think Gary introduced it to us as part of the first question.

What opportunities exist for the NRC to be more adaptable and flexible to changes in its environment, both internally and externally? And what are the potential impediments to realizing those opportunities?

So as I said, Gary had already touched on that earlier, but maybe we want to expand on that,

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add to it. I'll start again with folks here in the room.

Mike?

MR. FLAGG: I have no doubt you're doing this, but I want to lend my support to what I'm sure is happening with your talent management. As you're looking to repurpose a lot of activities, I would stress that not just the people, you've got a lot of good talent, a lot of young talent in NRC. You also have a massive knowledge base that at times I think is not properly leveraged.

Sometimes it seems when an institution comes to NRC and again, my world is not power. It's very narrow in that sense. But it's as if every license amendment request springs brand new from the ether, and is evaluated without context of what the NRC has been doing for the last 40 years.

There are tremendous numbers of safety analyses, bounding condition studies, accident reviews. NRC has a vast depth and wealth of knowledge created by past generations of staff that I would really ask you to perhaps place that with your talent management plans to whatever restructuring you look at, leverage what you've got.

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There is so much good stuff out there so that when -- and I think that this dovetails into a lot of the questions that have come up. When people come and we've become frustrated with turnaround times for LARs, this could help staff. Say look, what's similar in the past? Do I have a database of similar questions that have come through? Where is a report, maybe it's deep in the bowels of ADAMS or in the library, but there's so much good information out there I just might ask that as part of your strategic thought, continue the path you're following in terms of making this data more transparent and available, but also think internally about ways to better leverage the resources you already have. You've spent the time and money for decades doing these studies and these reviews. Maybe just make better use of it.

MR. BURTON: Jere.

MR. JENKINS: Jere Jenkins, TRTR. You know, we all work in a procedure-driven industry and we don't know what happens inside the walls of White Flint because we don't get to visit the floors without an escort. But you know, I'm sure that you guys suffer from the same things that we do or you don't

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like to change your procedures. You have a procedure when LAR comes in. It gets docketed. And then it goes through whatever steps.

I think what Mike says is very important, to be able to step back and look outside the narrow box that you put things in, what else have we done that's similar to this? And can any of that information be leverage?

In our own cases, particularly many of the Safety Evaluation Reports are written by external contractors and not by the NRC itself, even though you do have the talent to do the analyses. And that is something that has caused us some difficulties in the past, particularly with these license amendment requests that may involve a relicensing where you go through three different contractors over the period of time where, you know, you've submitted the license extension or relicensing application and in time you actually get your license. And every time a new contractor comes on board, you get an entirely new set of RAIs.

So you know, the opportunities are there, I think, to leverage the talent that you do have in-house and to be able to say yes, this 2 megawatt

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reactor is very similar to this other 2 megawatt reactor. Can we take any of the lessons learned over here and apply them and not necessarily take some lessons learned that we've gotten from this reactor and ratchet up the analysis of the next reactor?

Keep things in context and keep things in perspective. And that all goes back to, of course, budgets for everybody. You hire contractors on time and material basis, so they have no incentive to keep their analysis focused. They get more money by doing more analyses and coming up with more questions. I think that goes back to what Mike said about a flat fee from you guys on how much is it going to take for this license amendment before the people actually have to pay the \$280 an hour. You know, these are relatively complex things that the utilities may be doing, but there may be some relatively simple ones as well.

So you know, leverage what you've got in-house. Before you send everybody away on early retirements, take a look at it. Is it something that we should be keeping around that have a good knowledge base so they can be able to look at new technologies and be proactive instead of reactive and not learning

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after you get a license application.

MR. BURTON: Yes, actually, and you've touched on something I was going to probe a little bit. You know, as with all of us, we have a whole generation of technical expertise that's retiring and moving away.

Have you found a drop in any way in our effectiveness as some of those older, more seasoned and experienced people leave? Have you seen us take a hit in that respect or bumpless transfer?

MR. JENKINS: Jere Jenkins, TRTR again. I think from the research reactor community, no. I think the non-power reactor branch has done pretty well in maintaining a level of ability within that staff and they keep trying to bring people in who actually do have research and test reactor experience. That's a good thing. I can't speak for the utilities or the utilization facilities. But you know, what we hear on the street is that you're cutting staff. That's obvious because OMB or GAO says you guys are spending too much money. And you spooled up for the renaissance that didn't happen.

But now we know, as the industry turns towards new technology, molten salt reactors, small

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modulars, whatever, that there are going to be things coming in that you need to be prepared to deal with and not have what would be normally a four-year license review cycle for a plant that already has a design that's licensed. You're going to be dealing with something you haven't licensed before. So those are the challenges that we see from the outside.

MR. TRUMP: I would add one thing regarding personnel inside the RTR Division. The management staff has essentially become a rotational position and development assignment it seems. We've had so many different directors and branch chiefs since I've been there and that stresses the staff and makes the clarity of the organization.

MR. BURTON: But in changes in management staff, you're saying as a result of that you're seeing changes in priorities, changes in areas of focus, is that kind of what you're saying is the impact of that?

MR. TRUMP: From my perspective, Mark Trump again, there's an inconsistent direction from management. The message to the troops, safety and security permeates the organization. I won't take that out. But the interpretations -- first off, you bring in somebody from I'll say the power reactor

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side of the world. They have to learn a whole new concept on regulating a non-power reactor. And the emphasis, the priorities, the techniques, everything that goes with the change in management, and if it's being used as development assignment, one case it was just being used we're going to park this person here until they retire in six months and then they're out. And then it's a rotational assignment, a development assignment, then they're going up. I don't know how many in nine years, I'm not sure how many branch chiefs and directors have we seen over us. And there's not a consistency there.

I understand the NRC moves people around for development assignments. Somehow you've got to keep consistency in there as you do it, too.

MR. BURTON: Lisa, I understand Dan Cronin wants to weigh in with a comment?

OPERATOR: I am showing a question from the phone line.

MR. BURTON: Okay. We can take it.

OPERATOR: Charles Slama, your line is open.

MR. SLAMA: Okay. Thank you very much. Yes, this is Charles Slama, principal licensing

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engineer with URENCO USA.

I just have a question, we've been talking about the future initiatives specifically of small modular reactors. One of the things we've seen -- we've seen a lot of things as a fuel cycle representative, a lot of things that are a lot bigger than just the design of the reactor itself, a lot of things that go into the construction and operation that really flow over into the fuel cycle facility.

One of the things that we've looked at specifically more recently is the fact that some of these new SMR designs are going to rely on higher enrichments for longer core life. Specifically, we've seen some that are greater than 5 weight percent, but obviously less than 20 weight percent to keep them in the Cat 2 categorization.

So in order to be able to support the production of this fuel, the licensees need guidance to be able to design and build appropriate facilities under those security categories.

So the example that I just gave addresses the fact that we need additional security measures for Cat 2 facilities which currently those are all defined in 10 CFR 73.

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In the early 2000s, we did get ASMs for our Cat 3 facility and more recently, there was a proposed rulemaking in 2014 to codify the additional security measures for Cat 1, Cat 2, and Cat 3 facilities. That's our regulations.gov docket, NRC-2014-0118.

We've noticed recently or we noticed that this rulemaking is currently in a long-term action state and that there really hasn't been any activity on it since early 2015. And this is a concern for us because there are really no ASMs developed for Cat 2 facilities as I don't think there are any currently licensed.

So the question I have is has the NRC considered the breadth of changes required across numerous parts of 10 CFR which would be impacted by these new designs?

And the second question is is there a strategic plan to address all potential changes related to the construction and operations of SMRs and more specifically for me how that rolls across the rest of fuel cycle from conversation, enrichment all the way to the final disposal? Thanks.

MR. BURTON: It sounded like a comment

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in the form of a question, but we heard it.

Thank you, Charles. We'll go to Dan now.

OPERATOR: Dan Cronin, your line is open.

MR. CRONIN: Hi, this is Dan. Can you hear me?

MR. BURTON: Yes.

MR. CRONIN: I wanted to go back to the question you asked earlier about whether any of the RTR groups had noticed a change to RTR facilities due to experience level. And I have a comment there, something I've given a lot of thought to. I think there has been a significant change and I think that's part of the reason there are more RAIs. I can't speak for other facilities, but at least for the University of Florida what we've seen are -- well, let me give you a little background information first.

RTRs are somewhat different in that we don't have NRC inspectors on site. Generally, they only come once a year, once every two years unless something has happened and then they'll come more frequently. But the inspectors themselves, they're driven by procedure and they mostly examine paperwork, right? So they don't have to know a whole lot about the facility to inspect the paperwork.

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The licensing managers or program managers on the other hand, they're the guys that are working with the contractors, through license amendments and license renewals, and they have to understand how the facility works. They have to be able to read the SAR and the analysis and understand it. And in some cases they're just not familiar enough with the facility to be able to read the SAR and understand what they're being told. So the result is they wind up asking an RAI because they're not there, right? They're not at the facility. They can't just walk down there and look at it. So they ask a formal RAI because in many cases because they don't want to communicate off the record.

So that leads me to a possible improvement activity or something that maybe could be changed to help that is maybe for the strategic plan to consider, NRC might consider some type of RTR group realignment that ensures that the inspectors and program managers have enough time at facilities they oversee to be familiar enough with those facilities to understand basic systems operations and basic procedures without the need for formal RAIs. If they're not going to be there as a resident inspector,

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and they're going to be in a cubicle in D.C., they've got to be able to visualize and think back in their mind a little bit about what this facility looks like and how it operates in order to ask intelligent questions. Otherwise, you get really basic questions and it clogs up the licensing process and the docket and at some point you just get lost.

I think some of these guys have impossible task trying to do everything without the benefit of actually seeing the facilities they're trying to regulate. That's my recommendation for a possible improvement. Thank you.

MR. BURTON: I'm seeing a couple of heads nodding, some of your colleagues here. Go ahead, Jere.

MR. JENKINS: Jere Jenkins, TRTR. I will second that. There are several project managers who have never been to the facilities that they manage. That is obviously a problem. And that comes down to budgets and time. If your project manager is managing four or five facilities, what else are they doing besides managing those facilities? And we have no control over that. But it would be very beneficial to have the project managers have, not necessarily a

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resident inspector level knowledge, but at least more knowledge than just general RTR technology. I know that you have a class. I've sat in on your class for non-power reactors and it was beneficial, but that was for NRC staff and it was very general.

Obviously, inspectors are going to be out at the sites once a year or twice a year in some cases, but the project managers need to get out, too. But that is an opportunity, I think, for improvement. That's very specific and not at the 30,000 foot level of this meeting, we understand. But it's an example.

MR. BURTON: Okay, good comments. Go ahead.

MR. TRUMP: Getting back to the question on flexible and adaptable, in the same vein of what we're talking so much has to be done so formally. So if the project manager in this case wants an RAI or wants to ask a question, they're forced into a process that takes months. It's months to get the RAI approved. And it's months to get the answer.

We need to be flexible. We need a faster, simpler process for that to occur. Agile.

There's been some discussion of where they've used Drop-Box and they're literally asking

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I'll say informal questions and stuff. I don't know if that's -- I don't know where that really exists in regulatory space.

MR. ASHKEBOUSSI: This is Nima Ashkeboussi, NEI. So this may be outside the scope of this meeting, but since we've kind of gone into RAIs during various portions of the meeting, I'd really recommend that Bill Dean's expectations memo be distributed to other offices within NRC, particularly NMSS who has the licensing job with fuel cycle facilities, byproduct material licenses, and uranium recovery licensees. So I think that across the Agency having staff have a common understanding of what expectations are for RAIs and the communication methods would be beneficial for industry.

MR. BURTON: Let me follow up on that for just a second, Nima.

There was a time where RAIs were going out that we were getting feedback that they really weren't helping to advance a reviewer's ability to reach a finding. They were really almost like fishing expeditions. I remember that from quite a while.

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And I think we've taken some measures to try and clamp down on that. The RAIs really were relevant to ultimately meeting your safety finding.

Have you found an improvement in that aspect of RAIs or --

MR. ASHKEBOUSSI: In speaking for the fuel cycle industry, I can say that they believe a lot of the RAIs lack a regulatory basis, that they lack significant management oversight in the numbers of questions going out and that a lot of times reviewer expectations have changed and that they go into asking questions on matters that the NRC has previously made, approved licensee decisions. So I think on the fuel cycle side that there's still a lot of work to be done.

MR. BURTON: Okay, okay. I hear you.

MR. PETERS: It sounds like -- this is Gary Peters, AREVA. It sounds like there's some internal lessons learned that the NRC needs to share in this because again, there are some processes that are getting better. One process to reduce the number of RAIs was to have an audit where the NRC reviewers can do some face-to-face questioning and knowledge transfer with the applicant. And that audit process

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really reduces the number of written RAIs that are required. So it sounds like there might be some internal lessons learned to help other areas.

And I guess the other question comment on adaptable, flexible, the NRC, their resources are people. You don't own equipment. You don't own technology. You have people. And to be adaptable and flexible with people, you need to be able to move them quickly around the organization to where they're needed and maybe the current organizations that are sort of entrenched with their own people and it's hard to move people around when there might be some new requirement that needs more people.

And as Mark mentioned, the formality of those changes is slow. We're seeing that now with the potential consolidation of NRR and NRO. Well, how many years -- just think of the process that you're going to go through in order to make that organizational change and all the effort, man hours and time. That's not adaptable and flexible and agile. That's a slow, methodical process to make that change, so you've got to figure out how to be more flexible and adaptable and be able to make your changes quickly.

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MS. SHOOP: So one of the things that I know I've seen the NRC struggle with, so I don't know if you have any thoughts on this, is we have those thorough and methodical processes so that we don't kind of do something that would negatively impact licensees. So how do you balance that, making sure that you've thought everything through while also being faster and more agile?

MR. PETERS: Sometimes you make mistakes and you learn from them, but again, I think it's sort of the risk intolerant type of thought process where you have to study everything to infinitum because you are afraid of making a mistake. Well, organizational changes are fluid. You need to keep moving and be able to adapt. And sometimes it won't be perfect, but then you make your next adaptation change.

So again, I guess it depends on the level of the decision, right?

(Off mic comments)

Yes, yes. And again, it's not -- you're not affecting the public safety or security. You're basically just trying to adapt your organization to be more flexible and you don't necessarily have to have it perfect every time, but you need to be able to

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modify as necessary.

MR. BUTLER: I'd like -- this is John Butler, NEI. I'd like to kind of add on what Gary is saying. In order to be adaptable and flexible, you've got to be able to incorporate new knowledge as it arises. Often, when there's a new issue or activity, a course of action and schedule is set based upon the knowledge you have at that time. And too often, I've seen instances where as new knowledge come in, you have a better understanding of what the risk impact is on an issue, but there's no reevaluation of whether the course of action and schedule that was established initially based upon a limited knowledge base, needs to be readjusted. So having a process that allows new knowledge to be factored into and to allow you to adjust your course of action would make you a little bit more agile and I think and flexible in how you move forward on resolving issues.

A good example, of course, is the perennial GSI 191 where there's a course of action and schedule established for that, but as new knowledge, new understanding of the risk importance came in, there was no -- plenty of opportunities, but

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there was no course readjustment made on that issue.

So I think just having a process that allows periodic reevaluation, whether it's new knowledge or taking into account industry actions or whatever knowledge factors into the decision.

MS. COWAN: This is Pam Cowan from NEI. I wanted to go back and you had asked the question of whether we saw a difference with RAIs after some internal guidance. I personally did and I know others did. There is some effect to having reviews before they go out and other digging in in that area.

I don't think overall we're there yet with RAIs. I still see RAIs that aren't necessarily relevant to making a safety determination. I also see sets of RAIs coming out in dribs and drabs and you're not sure when the actual review is finished. So the discipline there could be improved. But I did see some improvement based on whatever communications that happened.

And I did want to say one thing I thought worked really well was the team with the continued storage rule, the waste confidence continued storage. I thought that was an outstanding effort. It was timely. It was very reliable and we weren't sure

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whether it was going to be able to make it with all the stakeholder input, but very good communication, sticking to the schedule with a lot of expertise went into that. I appreciate that. I think that was a great effort. And I'm not sure if you can look to using that maybe in certain other areas that are newer or need to be -- have a lot of focus. But something to think about.

MR. BURTON: Good. Lisa, I understand we have Melinda on the line who would like to make a comment.

OPERATOR: If you would like to ask a question or make a comment, please press star 1. I'm not showing anybody queued up at this time.

MR. BURTON: Okay, all right. One thing I want to throw out there in this context, one of the things we're doing here at the Agency is we're trying to put a little more formality and discipline to our add/shed process in terms of the work. And the other thing that no one has really specifically talked about in terms of -- it had to do with cyber security and I think you all are aware of some of the work that we're doing here. Any thoughts on how we're doing in terms of adding work versus shedding work and

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reprioritizing work?

We talked about that a little bit, and specifically actions that we're doing in the area of cyber security, what issues or concerns you may have.

MR. ASHKEBOUSSI: Nima Ashkeboussi, NEI. So speaking on cyber security, NEI has a petition for rulemaking on cyber security to what we believe is to appropriately right size the scope to what the Commission intended for 7354 to those systems and digital assets directly related to safely shutting down and maintaining safe storage for the reactor. So we're interested to see that process move forward.

There's a rulemaking ongoing right now for fuel cycle facilities for cyber security. And we'd like to give the staff a lot of credit for the openness and number of public interactions that they've had on the progress of that rulemaking, although we still have considerable concerns as to the scope of some of those digital assets in the staff's draft proposed rule, and some of the basis behind -- some of the regulatory basis and justification for continuing with that rulemaking.

On the other area of add/shed, I think that the rebaselining SECY paper was a good cut at

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identifying activities and shedding items that had very low to no safety significance. But on the fuel cycle side we continue to see items moving forward where we haven't seen a true justification for safety basis for moving forward on initiatives.

So during the stakeholder meeting yesterday, Janet Schuleter talked about how fuel cycle provides an integrated schedule of all the regulatory initiatives ongoing and we'd like to see that ranked on prioritization related to safety, not just what's going on, but also the safety and added value because there's definitely no disagreement on moving forward with items that aren't for safety significance, but on many of those initiatives, we have not seen the safety basis for continuing forward.

MR. BURTON: Melinda is ready now.

MS. KRAHENBUHL: I hope so. Can you hear me?

MR. BURTON: Yes.

MS. KRAHENBUHL: I'm sorry to throw back this to the adaptable and flexible, but one of the things I'd like to see is the NRC be able to accept eFiles or electronic transfers. We get a lot of communications that's time sensitive that is actually

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received at the facility after the time line has expired which really makes it difficult for me. So I'd like to see that embraced. Secure drop-boxes, something like that, that would be hugely helpful. Thank you.

MR. BURTON: Reed College. Okay. Butch.

MR. BUTLER: I just want to add one point. On the rebaselining activity that was performed under Project Aim, that was a fine activity. What I haven't heard a lot about and I would hope to see that reflected somehow in the strategic plan is a process that was used to perform that rebaselining, I would think that that process would become part of an ongoing prioritization evaluation process to allow you to continue to prioritize existing, current, and emerging activities in a -- at least periodically. And I haven't quite seen that discussed publicly that much. I anticipate that's going to occur, but I would hope that that would be reflected in the strategic plan in some way.

MR. BURTON: Okay, good. Okay, that's good. I think we're ready to go to the next question. We have a little less than a half an hour left. But

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before we do, any other -- anybody else itching to say something else on this?

OPERATOR: To ask a question or to make a comment, please press star 1 on your touchtone phone and please record when prompted. One moment, please, for your next question.

I am showing no further questions at this time.

MR. BURTON: Okay, all right. Thank you. Okay, next question, what factors external to the Agency are you aware of, for example, plans or initiatives from your organization or industry that we should consider in the update?

You've already shared so much of that with us already, so there are no secrets, things we don't know, right?

Go ahead, Jere.

MR. JENKINS: Hi, Jere Jenkins, TRTR. I'll keep coming back to budget constraints on all sides, both yours and your outside stakeholders. That's going to be driving everybody. You particularly see that out in the utilities right now. It's a hard environment for everybody to do a lot of work and another Fukushima imperative from the Agency

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is going to just make things even harder for the utilities. I can't really speak for the utilities. I'm sure NEI can. But even for the additional scrutiny that we got in the research and test reactor community with Fukushima even, we were able to say, hey this is a nonstarter for us. It really doesn't matter. Budgets are driving everything, just like budgets are driving what you all are doing.

MS. COWAN: I want to make a comment on that because you're right. Obviously, there's budgets and there's economic constraints, but at the same time I just want to -- so that it doesn't get lost, the industry is committed and has always been committed to doing things safely and so one area we're not going to cut corners is in safety. And in fact, even with the NRC regulations, the industry goes over and above to ensure safe, reliable operation of the facilities with the Institute of Nuclear Power operations and other initiatives.

So while we want to be more efficient and that will help to save money, we don't want to spend money where there's no value in safety or operation, but we will always do what's safe, regardless of cost.

MR. JENKINS: Thanks for that, Pam. I

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really didn't mean to imply we were trying to cut --

MS. COWAN: No, no. I know. I just don't want -- if there's anyone from the public on or anything, I don't want to give the impression -- I mean this industry is the safest, one of the safest.

MR. BURTON: Other comments? I know in the subsequent license renewal where at every interaction we have with the industry, we always press and say what do you got coming in? When are you going to bring it in? And you know, there's always a little wishy-washy-ness and I guess for understandable reasons because you guys are struggling with all the things you struggle with. But of course, the more information we can get, the better we can plan.

And I do want to say that I think the interaction has been pretty good. It's been I think as well as can be expected under the circumstances. But is there anything that you feel like we can do in terms of our interactions and communications with you guys to help us with our budgeting and planning that we could do better?

MR. JENKINS: Well, going back to the question before what you just asked, another

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initiative that you're going to see coming from at least our community, but I think from the power industry as well as Digital I&C, so we'll bring -- that's going to raise its ugly head again. And that goes back to everything we've talked about with the agility of the Agency to be able to deal with that.

I think maintaining open communications is going to be imperative for us to move forward on any of these initiatives from both sides. We need to be clear to you. You need to be clear to us.

MS. COWAN: I think that just having observed this over the years, you know, I do think the utilities will give information. Through the project managers probably is the most effective way to get it. Sometimes you don't know when you're go in with an amendment and that can happen, or sometimes you give a time frame, a lot of times regardless of whether there's advanced notice or not, you still get that same year turnaround that you're told don't try and ask for it sooner and we'll make it within the year.

I understand that to a point, but I guess I'd like to challenge in this day and age with the Internet and availability of information and ability

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to transfer information back and forth and have webinars and other things, I think maybe if something -- I'm not saying some benefit, but if it was okay, if we tell you we're going to come in in August and it's a fairly simplistic type of amendment or licensing action and we see the benefit of you knowing it's coming in in August, because now we can get it in December, that might be helpful as well.

But I will make a comment. One area you'll never probably predict is when -- unless plants are at their end of life is when a plant has made the decision to shut down as we've seen. You can't predict that. And I know we've talked about this yesterday briefly at the stakeholders meeting as an industry.

I'm not for rulemaking just to do rulemaking, but I think to take out those specific items that continually will take resources to do, the 12 or 13 exemptions necessary to right size the regulations for a shutdown plant and codify them or limit it to that so that it's expeditious, you're not wasting resources on changing things that won't necessarily expend resources later in exemptions, but that's one area that's very hard to predict and it

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does take a lot of paper to process through those 13 exemptions. Does anyone have a thought on that?

MR. BURTON: Lisa, do we have anyone on the line who would like to speak to this?

OPERATOR: I am showing no further questions or comments.

MR. BURTON: Okay, we're expanding our use of portals to exchange information. Work well? I think it is on our end. Everything I've heard has been good. Again, it speaks to the use of technology, leveraging it to everyone's benefit.

Nothing else? Nothing else on this one? Wow. Okay.

I think we're down to our last question. And I will tell you as you look at the last question, I think we have pretty much covered this, what action should the NRC consider to better align its activities, processes, work force, and other resources to support its strategic goals of safety and security. I think we've covered that pretty well.

Does anyone have anything else they wanted to add to that? Yes, please, Mike.

MR. FLAGG: Mike Flagg, University of

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Missouri. I really just want to make both Pam and Gary have touched on this and I just want to bring it back to your attention. I think it would be very beneficial to go back through the 2014-2018 strategic plan and see what worked. You've had a lot of feedback today on things we'd like to see improved. But this was a -- this time span has been very challenging. A lot of things have transpired and sometimes NRC has done well.

Find out the mechanisms that enabled staff to address those things expeditiously with again, safety, security in the forefront, always keeping that in mind. Find out what worked well during this last iteration of the strategic plan and take what worked and abandon what did not.

MR. BURTON: Very good. Okay, good. Other comments? Yes.

MR. BUTLER: John Butler, NEI. I assume going forward that you're going -- as Mike said, look at your current strategic plan and keep what still makes sense going forward. I mean looking at your goals, I think your goals still apply going forward and I could not come up with any large gaps in your goals. Certainly, the actions and key challenges

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will change, but high-level goals, I think, remain pretty robust.

I would ask that, as I mentioned, have a way, whether it's part of the strategic plan or it's part of the annual plans or divisional activities, have a way to be able to measure your performance to the goals and the actions that you establish, the more you can do to establish and communicate those metrics in your performance, all the better. That will allow you to adjust going forward what needs to be changed to better meet those metrics or even accelerate what you want to do in terms of -- what your metric should be. So I encourage that.

MR. RASOULI: John, I have a follow up. That's a very good comment and if you'd like to expand a little bit more or anyone else, what are your thoughts as far as some of the specifics on the performance metrics or the measures that we can add? There are several ones in existence. Are there specific ones that you are thinking about that would be very helpful if we talk about?

MR. BUTLER: There's a broad area that you can measure. Obviously, in the licensing area there's a lot of discussion yesterday of some actions

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that are being taken to improve some of the concerns and problems in the licensing area. So the expectation memo set some -- as it sounds, expectations. Measurements, metrics should be established. Just give a better sense of whether or not those expectations are being met.

We can certainly provide some recommendations for metrics that would make sense, or what we think would make sense in that area, but that's just one small area where metrics make sense. Metrics go well beyond licensing oversight. It can into some of the more management, NRC management objectives, how responsive, how agile you are to changes as they occur.

So I don't want to limit the scope of what these metrics can cover.

MS. COWAN: Our Regulatory Issues Task Force has been working, I know, and meeting with the staff in these areas.

MR. TRUMP: If I can jump in there, two issues. One was the metrics. Metrics are a tool as much for -- really a management tool for you. Particularly the higher-level management, to know what's happening down in the trenches. And just gives

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you a purpose to ask questions why is the oldest LAR 25 years old? Okay. So it's a high-level tool that's very visual. As a manager, used to have to produce them all the time in the commercial world and hated them because my management knew what I was doing. But it also helped me understand.

The other thing I wanted to bring up was the strategic goals that are in here are good, but I do think that I would like to see as I wax poetic the education issue, the true safety. Here, this is very specific. Safe use of radioactive materials is all we govern. The secure use of radioactive materials. That will never change. You've got to keep it secure. But we know in today's world something could happen, whether you didn't keep it secure or we, the licensees or it was brought in from outside. It doesn't matter. The impact will be the same when it happened. How do we mitigate the unsafe use. And I don't know whose job that is, but it is the challenge.

MR. BURTON: Thank you. Other comments in the room?

MR. ASHKEBOUSSI: Nima Ashkeboussi, NEI. So I think in the areas of openness and transparency, I think it would be beneficial to add invoicing

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transparency. I think an issue we've seen and heard is that quarterly invoices lack detail as to what was accomplished during that specific quarter. So for example, during an amendment, you may get your quarterly bill for that work, but you may never have heard from the PM or the team, never seen RAIs. So there's a lot of questions about what was actually accomplished during this quarter from which I'm billed \$265 times X number of hours for that work. So I know that's an area we've raised to the CFO and she may be tackling that issue, but in terms of competence in what staff is accomplishing and the transparency on what industry is paying would be beneficial.

MR. BURTON: I see financial stewardship. Okay.

MR. PETERS: This is Gary Peters again. One of the things that I heard a couple of times during yesterday's stakeholder meeting was -- which maybe the commissioners will get back to the staff on is it appeared that there was a concern within the NRC on some of your surveys that the process for differing technical opinions wasn't as smooth as it should be and that there was a feeling that they weren't being resolved adequately and it wasn't --

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there wasn't a comfort factor of having a differing technical opinion because people thought that they weren't treated fairly.

So that may be a strategic cultural thing. Maybe it doesn't show up in this plan, but maybe it's different internal actions that you look at. But maybe the generic comment would be coming up with a better process where there is a difference of technical opinion whether that's between the industry and the NRC, or whether that's internal to the NRC itself, that that process can be improved so that all aspects can be heard, a decision can be made quickly and we can move on.

MR. BURTON: So with regard to that, not so much internally amongst us with differing opinions, but between us and applicants or licensees, what's been your experience? They haven't been effective? They haven't been timely?

MR. PETERS: I think we've identified that as an issue recently with our topical report process and we're working with the staff to come up with a concept and idea to let's say fairly raise our concerns to the NRC management quickly. So if a reviewer is asking 50 questions and we really don't

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think they're applicable and we don't think the reviewer is treating us fairly, we can quickly raise that to some process so that we don't insult the reviewer and burn a bridge in that process. But it can be professionally handled where he has that opinion. We have this opinion. We need a board or we need an oversight committee to rectify the situation, so we can move on.

MR. RICKMAN: Just a question along that line. Does not the NRC have an internal differing professional opinions process? You do. Okay.

MR. WEBER: And we have a process to address --

MR. RICKMAN: -- and you have that. I thought you did. So I just wanted to --

MR. WEBER: Yes, we do.

MS. COWAN: And I think the comments made yesterday on the slide of the individual who presented them.

MR. BURTON: Okay, we are getting into the close out portion, but before I do, can -- just very quickly, Lisa, does anyone have any comments on the phone? Lisa, are you with us?

OPERATOR: I am showing no further

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questions or comments.

MR. BURTON: Okay. All right. Very good. So I think we've covered everything we wanted to cover today. I thought it was a really great discussion and I think we're ready to start our close out. Before I do, I just want to ask again that folks take some time to complete both the meeting feedback form as well as the stakeholder question form, both of which are in the back. Make sure you've signed in if you haven't already.

We really use the meeting feedback forms to try and improve future meetings, so we really appreciate your feedback there.

Okay, so I think with that I am going to turn it over to Mike Weber, Director of the Office of Nuclear Regulatory Research and he will give closing remarks and adjourn the meeting.

MR. WEBER: Thanks, Butch. I'm going to give you a quick summary of what we heard today. I appreciate all the active participation, both by those of you in the room and those on the phone.

We started by talking about strengths, so we heard a lot about a very mission-strong focus. We heard about technical competence, world-class

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regulator, very responsive. And we heard a comment about NRC works, so don't mess that up.

In terms of opportunities for improvements or weaknesses, we heard that NRC could be more nimble and be more responsive to innovation, that we could be more performance focused and establish clear metrics that we would use to evaluate how well we're doing.

We heard a fair amount of discussion about how the research and test reactor regulations are different because under Section 104(c) of the Atomic Energy Act the Congress decided that a different threshold should be established for regulation.

We heard that we could improve on further risk informing and grading our regulatory processes so that we get the value out of the investment of effort, both on the part of the licensees and on the part of the NRC in terms of focusing on both safety and security.

We heard a fair amount of discussion about public education and whose role was it to help the public and it may take some time to get there and it might be something that we would share or another agency has responsibility for, but it's clearly a

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national need that ought to be addressed going forward.

We heard about sometimes the NRC coming across as being risk intolerant and then that drives an undue level of formality, an undue level of prescriptiveness, asking too many RAIs, too much regulatory burden imposed through that process.

We heard that sometimes that can stifle innovation. Sometimes we're excessively analytical and we're asking questions because we can rather than because they matter in terms of accomplishing the Agency's mission. And we heard concern out there that we're not doing enough in some cases and ensuring protection of the public health and safety. We had some examples cited there with security and with transportation.

Challenges kind of mirrored what we talked about and those opportunities for improving, that licensee resources are very constrained, so we ought to take that into account as we go about our regulatory duties, that the Agency does not appear to be prepared to address some of the emerging technologies. We heard about advance reactor technologies. We also heard about technologies that

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are here and now like digital instrumentation and control and how we need to step up to the plate to address those things.

And because we're not ready in some of those areas, we tend to be more reactive, whereas we ought to be ready and proactive in providing guidance and actively resolving these issues as they come to the fore. That we ought to, perhaps, relook at security and inspection programs and our RAI process and the NRR guidance that recently was issued by Bill Dean was cited as a good practice that ought to be looked at across the Agency for broader application.

We need to define success measures. We need to go back and look at the current strategic plan and assess how well we've done in accomplishing the strategies that are specifically laid out in there and those that aren't perhaps there yet, we ought to carry forward and those that are there, we ought to assess well, what did we do, what were the outcomes that were achieved and take into account how good we succeed in accomplishing that.

We heard more discussion about don't treat all facilities or groups of licensees the same. Nuclear power plants are not the same as research and

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test reactors not the same the fuel facilities, not same as uranium recovery licensee.

We heard about DOE construction of a new test reactor and how that's an opportunity for us potentially if they do see to have some level of NRC review of that, that we could gain knowledge and at the same time better prepare our regulatory framework for addressing those technologies.

We heard the concept of perhaps we ought to charge a flat fee to support our regulatory reviews and especially in these innovative and new technology areas. I'm not going to hit every one of these, obviously, because of the time, but I want you to know that we've been listening. We've been taking notes and we appreciate all of your contributions that you've shared with us that will help us to better inform the development of our strategic plan. We will take your input into account.

I want to emphasize that we're at the start of this process, so this is not your last opportunity for input. In fact, hopefully, you'll hold us accountable as we go forward and you'll say hey, you know, on July 27th we shared this idea with you. What have you done with that? Where is that in

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the process? Is that still relevant to what we're going on now in the formulation of our strategic goals and our strategies and our performance measures.

And I also want to emphasize that our target for completing the strategic plan in accordance with the Government Performance and Results Act, Modernization Act, is to develop that strategic plan by February of 2018. That seems like a long way away. It's not and so we will be moving aggressively inside the Agency to take your input into account, to listen to the input from our own employees and to figure out okay, what should the strategic plan look like? And as Houman reported earlier to involve the Commission quite actively in an engaged way to ensure that the strategic plan we formulate is indeed their strategy, their vision, their mission so that it can guide the Agency moving forward with our activities because what we do is important. Safety and security of the nation is quite important. It's important to you. That's why you took the time to participate today. It's important to us here at the NRC. That's why we exist as an agency.

With that, I want to thank you and if you traveled to get here, I hope you travel home safely.

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And those of you who may have come a greater distance,  
also be safe as you return to your destination. Thank  
you very much. We are adjourned.

(Whereupon, the above-entitled matter  
went off the record at 12:00 p.m.)

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